DIAMOND DRILLING

TOWNSHIP: TECK

REPORT NO: 82

WORK PERFORMED FOR: BATTLE MOUNTAIN INC.

RECORDED HOLDER: SAME AS ABOVE [X]

: OTHER [ ]

CLAIM NO.	HOLE NO.	FOOTAGE (m)	DATE	NOTE
L447419	AK-91-29	206.85	JULY-AUG/91	(1)
447419 + 500057	AK-91-30	387.45	AUG/91	"
491662 + 491663	AK-91-31	409.75	"	"
491663	AK-91-32	390.80	"	"
491650 + 491651	AK-91-33	454.75	"	"
491662	AK-91-34	450.00	AUG-SEPT/91	"
491182 +491183	AK-91-35	365.50	SEPT/91	"
491183	AK-91-36	132.80	"	"
491182	AK-91-37	301.35	"	"
491662 + 491663	AK-91-38	619.10	SEPT-OCT/91	"

10km²/3718.35'

NOTES:

(1) W9280.00054

Ministry of Northern Development and Mines

Ontario

Report of Work Con After Recording Cla

Mining Act

Assess FILES LIBRARY

42A01NE0106 82 TECK

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Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
BATTLE MOUNTAIN (CANADA) INC. T 5179		105640
Address		Telephone No.
390 BAY STREET, SUITE 2910, TORONTO, ONTARIO M5H 2Y2		(416) 867-9815
Mining Division	Township/Area	M or G Plan No.
Larder Lake	Teck Township	M 392
Dates Work Performed From: June 1, 1991	To: November 29, 1991	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	
X	Physical Work, Including Drilling	Drilling
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs $ ~~274,746.42~~ Roundedup 274,747

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
W. Benham (Author)	P. O. Box 635, Kirkland Lake, Ontario P2N 3K1
Heath & Sherwood (1986) Drilling Inc.	P. O. Box 993, Kirkland Lake, Ontario P2N 3L3
Swastika Laboratories	P. O. Box 10, Swastika, Ontario P0K 1T0
M. Masson (Geologist)	P. O. Box 1343, Kirkland Lake, Ontario P2N 3P2

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	Jan 28/92	O. E. Leigh

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying
Wayne Benham, P. O. Box 635, Kirkland Lake, Ontario P2N 3K1

Telepone No.	Date	Certified By (Signature)
(705) 567-4840	Jan 31/92	W. Benham

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
$274747	JANUARY 31/92		
	Deemed Approval Date: —	Date Approved: JANUARY 31, 1992	
	Date Notice for Amendments Sent		

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	L477419	1	31,393	0	0	31,393
	L491650	1	9,134	0	0	9,134
	L491651	1	25,103	0	0	25,103
	L491662	1	67,637	0	0	67,637
	L491663	1	72,658	0	0	72,658
	L491182	1	27,635	0	0	27,635
	L491183	1	29,569	0	0	29,569
	L500057	1	11,618	0	0	11,618
	8		274,747	0	0	274,747
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☒ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature [signature] E. Leigh	Date Jun 28/92

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

DOCUMENT No.
W 9280 · 00054

Personal information collected on this form is obtained under the authority of the **Mining Act**. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la **Loi sur les mines** et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	49,608.76	
	Field Supervision Supervision sur le terrain		49,608.76
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type DRILLING	186,014.30	
	ASSAYING	22,606.53	
			208,620.83
Supplies Used Fournitures utilisées	Type FIELD SUPPLIES	2,286.48	
	CORE RACKS	2,475.00	
	OFFICE	134.55	
	PRINTING	1,541.87	6,437.90
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			264,667.29

2. Indirect Costs/Coûts indirects

** **Note:** When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type TRUCK RENTAL	2,090.88	
	TRUCK REPAIRS	70.19	
	FUEL	946.22	
	SHIPPING & COURIER	564.04	
			3,671.33
Food and Lodging Nourriture et hébergement			6,676.41
Mobilization and Demobilization Mobilisation et démobilisation			832.80
Sub Total of Indirect Costs Total partiel des coûts indirects			10,070.13
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	**Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles**		274,746.42

Rounded to 274,74

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as VICE PRESIDENT AND MANAGER OF EXPLORATION (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

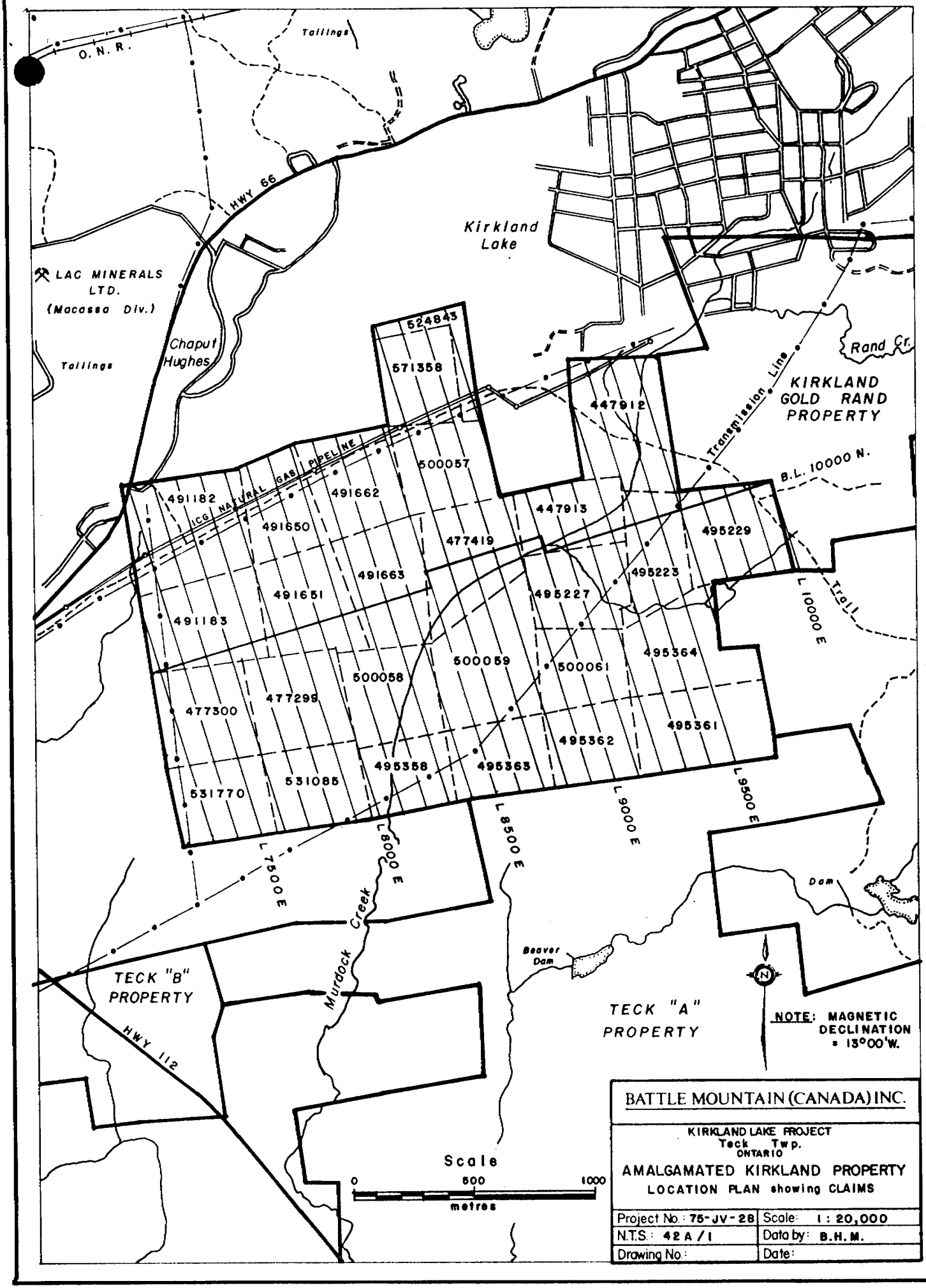
Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé

à faire cette attestation.

Signature	Date
O. E. LEIGH	Jan 28/92

0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



BATTLE MOUNTAIN (CANADA) INC.

KIRKLAND LAKE PROJECT
Teck Twp.
ONTARIO

AMALGAMATED KIRKLAND PROPERTY

LOCATION PLAN showing CLAIMS

Project No.: 75-JV-28	Scale: 1 : 20,000
N.T.S.: 42 A / 1	Data by: B.H.M.
Drawing No.:	Date:

Battle Mountain (Canada) Inc.

KIRKLAND LAKE PROJECT

REPORT ON DIAMOND DRILLING PROGRAMME

JULY TO OCTOBER, 1991

AMALGAMATED KIRKLAND PROPERTY

TECK TOWNSHIP, LARDER LAKE MINING DIVISION

ONTARIO, CANADA

VOLUME I

Kirkland Lake, Ontario
November 29, 1991

W. Benham
T. J. Bottrill

Battle Mountain (Canada) Inc.

KIRKLAND LAKE PROJECT

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ONTARIO, CANADA

Kirkland Lake, Ontario
November 29, 1991

W. Benham
T. J. Bottrill

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VOLUME II

LIST OF DRAWINGS

1.0 SUMMARY

Battle Mountain (Canada) Inc. (BMCI) completed a diamond drilling programme during July 29th to October 3rd, 1991, on the Amalgamated Kirkland Property located in Teck Township, Ontario. Ten holes were drilled, for a total of 3718.35 metres, to follow-up and extend the mineralization known as the "102" zone which was discovered in 1989 and drill tested at shallow depths in 1990; to test some interpreted sub-parallel structures; and to explore two areas underlain by the Amalgamated Kirkland syenite body, at greater depths beneath historically reported gold mineralization.

Seven holes were targeted on the "102" structure along strike, and at greater depths than tested by the 1990 program. Hole AK91-29 intersected the zone 100 metres further west than tested previously at a depth of 125 metres, and hole AK91-35 intersected weak mineralization and alteration in the gap between the main part of the "102" zone tested by closely spaced drilling in 1990 and the mineralization close to the eastern Canadian Kirkland shaft tested by hole AK90-28.

Holes AK91-30, -31, -32 and -33 were drilled at 200 metre horizontal intervals at a vertical depth of approximately 300 metres beneath the area of the 1990 closely spaced drilling along the "102" zone. Of these only hole AK91-31 returned a significant intersection of 9.70 g/t Au over 5.15 metres at vertical depth of 315 metres. The remaining three holes intersected the zone in a fault gap or in an area of weak alteration.

Hole AK91-38 was drilled at a vertical depth of 525 metres beneath the intersection in AK91-31 and located a broad zone of alteration and veining from which the highest assay interval was 1.97 g/t Au over 5.1 metres.

In the process of drilling holes AK91-30, 31, 33, 35 and 38 the new "103" zone was discovered, lying approximately 100 metres north of the "102" zone. This zone was mineralized in four of these five holes (30, 31, 35 and 38), with from 1.14 to 4.88 g/t Au over core lengths of 0.60 to 3.45 metres.

Hole AK91-36 was a short hole drilled beneath hole 35 to test an area of alteration and discontinuous syenite bodies related to the "99", "100" or "101" zones. No significant mineralization was encountered.

Holes AK91-34 and -37 were drilled to test a series of alteration and historically reported mineralized zones within and to the immediate south of the Amalgamated Kirkland Syenite body

in the northwest corner of the property. Both intersected broad zones of anomalous and altered feldspar-porphyritic syenite dykes, with up to 280 ppb Au over 8.6 metres in hole 34 (the "107" zone) and 180 ppb Au over 25 metres in hole 37 (the "106" or historical Amalgamated Kirkland zone). The Amalgamated Kirkland syenite probably consists of a mafic "trachyte" flow complex cut by a feldspar-porphyritic syenite dyke swarm, rather than a single plutonic body.

As a result of the 1989-91 program on the Amalgamated Kirkland property a series of sub-parallel mineralized zones or structures have been discovered within an area which extends for at least 1,550 metres along strike, and over a stratigraphic interval about 800 metres wide, as a complexly folded sequence of Timiskaming volcanic sedimentary and minor intrusive rocks. These mineralized zones are parallel to the Kirkland Lake "Main Break", approximately 1,500 metres to the immediate north, and to the Larder Lake Break to the immediate south.

The most important mineralization as tested to date is the "102/103" zone, which has been traced for 1,550 metres along strike by stripping and drilling. It consists of a series of sub-parallel mineralized structures which are open at depth, especially given the wide spacing of the deeper holes. The surface stripping and shallow drilling in 1990 showed that the individual mineralized structures are continuous along strike, but locally disrupted by later faulting, and the deeper drilling in 1991 has shown that the overall system is continuous to a depth of 525 metres. Whilst no body of economic mineralization has yet been located, many of the intersection widths and average grades are indicative of a significant mineralized system with the potential to host ore-shoots characteristic of the Kirkland Lake district.

Further drilling is recommended to evaluate the overall potential of the combined "102/103" structure between surface and 700 metres vertically, over the known and available strike length of 1,600 metres on the property. The initial drilling should be on 200 metre centres, with progressive in-fill drilling in areas of stronger mineralization, prior to either close-spaced surface drilling or underground exploration in order to establish the mineral reserves along this system. No further exploration is recommended at this time of the mineralized zones in the Amalgamated Kirkland syenite which were drilled in 1991. However, the structural relationships between the strike and dip of the "102/103" zone and the southern contact of the syenite indicate that the zone should enter into the syenite at a depth of about 700 metres at the west end of the property, and at progressively greater depths to the east. Most of the historical production in the Kirkland Lake district has been from a complex syenite body that is almost identical to the Amalgamated Kirkland syenite; therefore, the potential for economic mineralization along the "102/103" zone is probably greater at depth, after it intersects the syenite body.

2.0 INTRODUCTION

This report describes the results of the 1991 diamond drilling programme, which was carried out by Battle Mountain (Canada) Inc. (BMCI) during July 29th to October 3rd, 1991 on the Amalgamated Kirkland property located in the Kirkland Lake gold camp in northeastern Ontario, Canada. Previously diamond drilling in 1990 had intersected significant gold mineralization, which is associated with the "102" structure, along a strike length of 550 metres and at vertical depths of 20 to 119 metres, as well as in a possible western extension of the zone a further 700 metres to the west. The 1991 follow up drill programme was planned to follow-up and extend the "102" zone along strike at greater depths; to test some interpreted sub-parallel structures; and to explore two areas underlain by the Amalgamated Kirkland syenite body, at greater depths beneath areas where previous drilling during the 1930's and 40's had reported gold mineralization.

Ten holes were drilled, for a total of 3718.35 metres, by Heath & Sherwood of Kirkland Lake and selected core samples were assayed by Swastika Laboratories in Swastika. The core was logged by Mark Masson, B.Sc., and W. Benham, B.Sc, assisted by technician R. Peever; the programme was supervised by W. Benham, the BMCI Kirkland Lake project geologist. The drill plans and sections accompanying this report were drafted by B. Madill. The logs were typed by C. Anderson and the final logs designed and produced using WordPerfect 5.1 by MDC Geological Consultants.

2.1 Location and Access

The property is located in the Larder Lake Mining Division in the southeast quarter of Teck Township, immediately south and southwest of the Town of Kirkland Lake (NTS 42 A/1; UTM 538800 E, 568600, N; See Drawings No. 1 & 2).

Access to the northeastern part of the property is provided by Main, Queen and Earl streets in the Town of Kirkland Lake and the Hunton Shaft bush road. Access to the northwest is along various trails leading from Government Road West in Chaput Hughes, and from the Industrial Plaza on Highway 66. A gravel road, which joins the Highway at a point approximately midway between the GMC City dealership and the Industrial Plaza, was used to provide access for heavy equipment such as diamond drills and backhoes. This private road crosses patented claims held by Mr. Joe Morgan of Swastika, who kindly gave his permission for its use.

Parallel and adjacent right-of-ways for hydro and natural gas lines cross the northern part of the property, leading to the co-generation plant south of the Town.

2.2 Claims

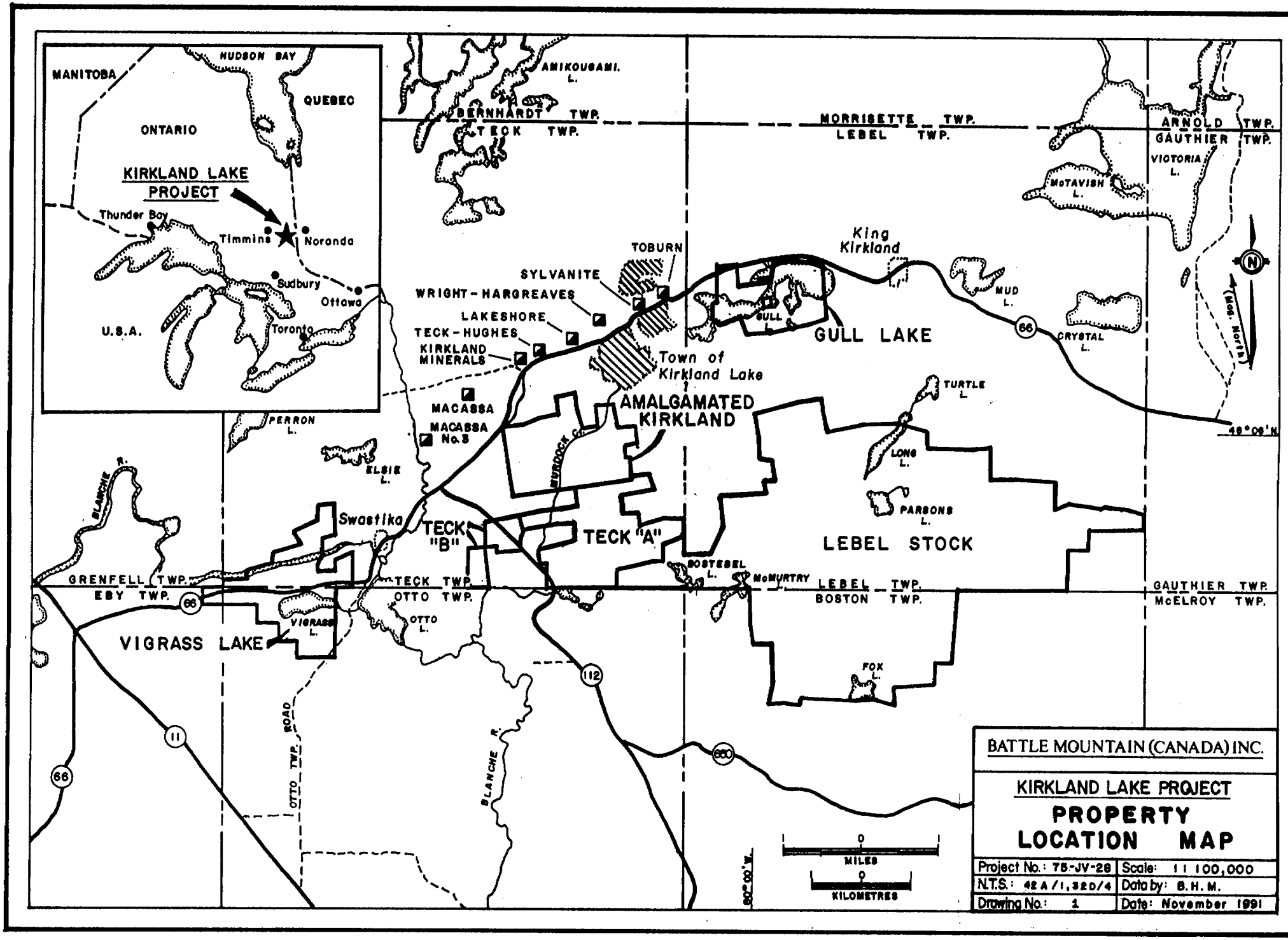
The Amalgamated Kirkland property consists of twenty-seven (27) claims optioned by Queenston Mining Inc. (formerly HSK Minerals Ltd.) from Premier Explorations Inc. The property is currently held by BMCI as part of an option agreement with Queenston Mining Inc. dated June 15, 1989.

The 27 contiguous unpatented mining claims are shown on Drawing No. 2. An application for lease, mining rights only, was submitted November 12, 1987. The surface rights are held by the Corporation of the Town of Kirkland Lake.

2.3 Topography and Vegetation

Seventy percent of the property consists of low rounded knolls and ridges, whilst the remaining thirty percent forms tag alder and black spruce swamps. Elevations are from 305 to 345 metres ASL. Thirty percent is outcrop and shallow soil, whilst overburden, consisting of glacial till one to twenty metres thick, covers the remainder of the claims. The southwesterly flowing Murdock Creek divides the property approximately in half.

Most of the property that is not occupied by the alder and spruce swamps is covered by second growth poplar bush with local, small stands of birch, spruce, balsam and pine.

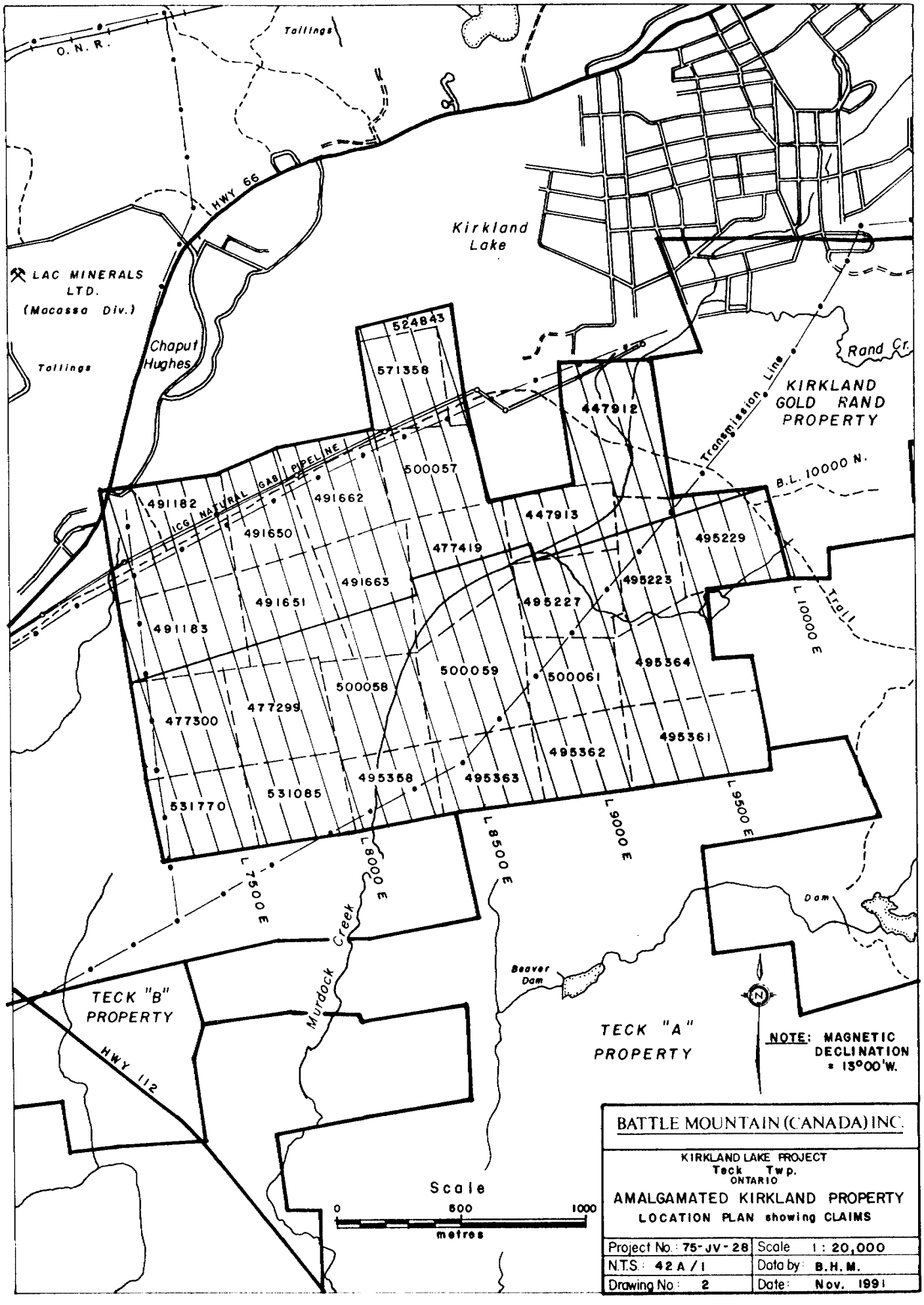


BATTLE MOUNTAIN (CANADA) INC.

KIRKLAND LAKE PROJECT

PROPERTY LOCATION MAP

Project No.: 75-JV-28	Scale: 1:100,000
N.T.S.: 42A/1,32D/4	Data by: B.H.M.
Drawing No.: 1	Date: November 1991



BATTLE MOUNTAIN (CANADA) INC.

KIRKLAND LAKE PROJECT
Teck Twp.
ONTARIO

AMALGAMATED KIRKLAND PROPERTY
LOCATION PLAN showing CLAIMS

Project No.: 75-JV-28	Scale 1 : 20,000
N.T.S.: 42 A / 1	Data by: B.H.M.
Drawing No.: 2	Date: Nov. 1991

3.0 PREVIOUS WORK

The Amalgamated Kirkland property has a long history of exploration activity which dates back to 1911. Prospecting, mapping, trenching, geophysical surveys and diamond drilling programmes have been carried out on specific geological targets such as quartz veins at the east (Hunton Shaft) and west (Amalgamated Kirkland zone) ends of the Amalgamated Kirkland syenite body in the north part of the property; carbonate alteration zones in close proximity to the Larder Lake Fault Zone which crosses the central portion of the claim block; carbonate alteration zones within the Murdock Creek stock which occupies most of the southern half of the property. The area which is mostly underlain by Timiskaming volcanic and sedimentary rocks between the Larder Lake Fault and the Amalgamated Kirkland syenite had not been intensely explored prior to 1989, except for numerous old prospector's trenches which probably date back to the period from 1911 to 1924.

During the 1989 field season, a line-cutting, geological mapping and overburden stripping programme was carried out by BMCI to explore all of the property, but with the specific objective of exploring the Timiskaming volcanic and sedimentary rocks which had been relatively neglected in the past. This programme was specifically designed to search for mineralization based on a model of the stratigraphic and structural controls of the mineralization within the Kirkland Lake gold-quartz deposit (the "Kirkland Lake Main Break") and the Upper Canada Mine deposit in Gauthier Township to the east.

The grid was cut with a survey controlled base-line orientated at 071°, with cross-lines every 100 metres. In early 1990 intermediate lines were cut 50 metres apart as far south as 96+00N (i.e. across the Timiskaming Group and the Larder Lake Fault Zone).

This 1989 programme resulted in the discovery of two anomalous gold-bearing alteration zones (Bottrill, 1990; Benham, 1990) within the Timiskaming sedimentary and volcanic rocks. The "101-7290" gold zone averaged 2.48 g/t Au over a width of 6 metres, while the "102-8350" zone assayed 2.22 g/t Au across 6 metres including 5.0 g/t Au over 1.5 metres. Both showings are associated with sericitic, pyritic, silica-breccia and vein zones striking 070°, parallel to the other major mineral deposits in the district.

The "101-7290" zone is close to the eastern of the two Canadian Kirkland shafts close to the western boundary of the property. Nothing is known about the historical work around this shaft.

A magnetometer survey (Roth, 1990) and a detailed IP survey (Roth, 1990a) were completed during 1990. Linear zones of low magnetic amplitude, related to the pyritic replacement of magnetite, with corresponding, if intermitted, weak chargeability and high resistivity anomalies from the IP survey, were found to be associated with these mineralized structures. Similar anomalies along strike, and others parallel to the known mineralization (the "99", "100", "101", "102, "104", "105", "106", and "107" zones), provided an indication of the overall form of the alteration and structural system on the property, as well as specific exploration targets for diamond drilling and/or further trenching.

During the summer of 1990, additional overburden stripping, detailed mapping and channel sampling was completed (Benham, 1990a). The interpreted "102" structure was traced intermittently as a gold-bearing, pyritic, sericitic, silicic alteration zone for a strike length of 540 metres from 79+10 E to 84+50 E. The exposed mineralization was channel-sampled at close spacings, which averaged 3.53 g/t Au over 4.01 metres for a strike length of 60 metres in the "102-8350" zone, and 2.96 g/t Au over 5.00 metres for a strike length of 45 metres and in the "102-8170" zone. Selected grab samples returned assays up to 36.55 g/t Au and individual channel samples across the zone were up to 8.36 g/t Au over a width of 3.80 metres. A new showing of native gold, which was named the "99-8030" zone, returned a channel sample assay of 797.5 g/t Au across 0.45 metres.

During October 15, 1990 to December 13, 1990, a diamond drilling programme was carried out (Benham, 1990b). Twenty-eight holes for a total of 3,318.67 metres were drilled to test new gold discoveries and geophysical anomalies outlined by the previous exploration work by BMCI. This programme was concentrated along strike for 350 metres to the west and 200 metres to the east of the original "102" discovery showing at 83+50E, and to a vertical depth of 115 metres. Quartz plus pyrite breccia veins, 0.05 to 6.2 metres wide, within a broader zone of hematized, sericitized and silicified altered tuffs, graywackes, mudstones and syenites were found in most of the holes. Mineralized intersections varied considerably in width and grade in the twenty holes completed in this area. Some were relatively narrow quartz vein structures (such as 11.25 g/t Au over 0.60 metres in hole AK90-09) whereas others were multiple vein and breccia zones within broader alteration envelopes (e.g. 7.64 g/t Au over 4.00 metres in hole AK90-06). Other significant intersections included 3.58 g/t Au over 2.55 metres in hole AK90-08; 3.14 g/t Au over 2.80 metres in hole AK90-18; 2.25 g/t Au over 8.45 metres in hole AK90-21; and 2.74 g/t Au over 3.75 metres in hole AK90-24.

Holes AK90-22 and AK90-11, drilled 200 metres further east and west respectively along strike from the 550 metre long mineralized section of the "102" zone, failed to return any significant mineralization. Hole AK90-11, intersected over 20 metres of altered sericitic tuffs,

graywackes and mudstones, but without any mineralized pyrite + quartz breccia zones. Subsequent re-interpretation of the data indicates that hole AK90-22 was not drilled far enough south to intersect the "102" zone, but it intersected a broad zone of silicified, pyritic but barren alteration which may be related to the "103" zone.

Hole AK90-28, drilled just to the east of the "101-7290" trench and the Canadian Kirkland Shaft returned 1.89 g/t over 2.0 metres. This mineralization may be part of the western extension of the "102" zone or a sub-parallel feature.

Drill tests of the "99" and "100" structures in six holes did not return any anomalous assays. The magnetic lows and IP anomalies which were the targets of these holes are due to zones of sericite + carbonate + hematite alteration zones with quartz veining and pyrite, but no significant gold mineralization.

Although no economic mineralization was discovered by the 1990 drill programme, significant anomalous gold mineralization, which is associated with the "102" structure, was intersected in holes drilled along a strike length of 1250 metres, from 73+50 E to 86+00 E and at vertical depths of 20 to 119 metres.

4.0 REGIONAL GEOLOGY AND MINERALIZATION

The Kirkland Lake district is in the Abitibi Greenstone belt of the Archean Superior Province of the Canadian Shield. It lies to the south of the major east-west trending Blake River synclinorium, the northern and southern limbs of which are defined by the Destor-Porcupine and Larder Lake-Cadillac Fault Zones or Breaks. Most of the historical gold production in the Abitibi Belt is spatially associated with these two regional structural zones. The southern limb of the Blake River synclinorium in the Kirkland Lake area consists of tholeiitic volcanics of the Kinojevis Group. These are unconformably overlain by the trachytic volcanic and coarse clastic sedimentary rocks of the Timiskaming Group, and their associated syenitic intrusives. The southern boundary of the Timiskaming Group is marked by the regionally south-dipping Larder Lake Fault Zone. The assemblage to the south of this fault consists of the Larder Lake Group, consisting of komatiitic and tholeiitic volcanic rocks with thin interflow graywacke, argillite and iron formation sedimentary rocks. The Larder Lake Group are intruded by plutons of pyroxenite, gabbro and syenite, including the Lebel, Murdock Creek and Otto stocks.

The Kirkland Lake gold camp has produced in excess of 23 million ounces of gold from quartz-veined shoots in a deposit known historically as the Kirkland Lake Break or Mile of Gold. There were six producing mines along the deposit, of which the one remaining active producer is the Macassa Mine of Lac Minerals Ltd, at the west end of the deposit. The deposit strikes 067°, with a dip to the south of 75°-80°. It lies mostly within augite-syenites which intrude interbedded coarse tuffaceous and clastic sedimentary units of the Timiskaming Group. The augite-syenites and the country rocks are intruded in the area of the deposit by hypabyssal felsic syenite plugs and by syenite porphyry dykes. All of the intrusive phases are comagmatic with the enclosing trachytic volcanic rocks. Some of these plugs and dykes are locally mineralised or form one of the walls of the shoots. The entire deposit has been dismembered by a complex series of younger, steeply dipping reverse faults, of which the largest is the Kirkland Lake Main Break. Many of the larger shoots lie against, or are terminated by, one or more of the branches of this fault system.

The Kerr Addison mine, which is located 36 km to the east in the Larder Lake district, has produced in excess of ten million ounces, and is still in production. This ore deposit is hosted by altered and strongly sheared mafic to ultramafic volcanics of the Larder Lake Group immediately to the south of the Larder Lake Fault Zone, and is associated with altered plugs and dykes, known locally as "albitite", of unknown original composition. It contains two distinct ore-types: "green-carbonate ore", as quartz veins in altered ultramafic volcanic rocks; and "flow-ore",

as pyritic, altered and deformed variolitic, pillowed basalts, with only minor quartz veining. Both ore types are spatially associated with the "albitite" plugs and dykes, but they have different distribution and plunges on the longitudinal section.

5.0 PROPERTY GEOLOGY

The Amalgamated Kirkland property is underlain by Timiskaming Group volcanic sedimentary and related intrusive rocks in the north half, and by the Murdock Creek syenite stock intruding Larder Lake Group volcanic rocks to the south. These are separated by a broad zone of shearing along the Larder Lake Fault Zone.

5.1 Stratigraphy

The Timiskaming Group is a series of interbedded clastic sedimentary rocks and coarse pyroclastic and epiclastic volcanic rocks, together with minor flows, intruded by semi-concordant bodies of multi-phase syenite. The majority of the rocks on the property are volcanic, with sedimentary layers. To the north of the property, and on the northernmost claims around the Hunton Shaft the sequence is dominantly sedimentary. A similar dominantly volcanic sequence to that on the Amalgamated Kirkland property encloses the majority of the host syenite complex which forms the wall rocks to the Kirkland Lake gold-quartz deposit immediately to the north. It is not known whether these volcanic units are the same horizon, exposed on either side of a major fold (the "Kirkland Lake Syncline") or separate units in a south facing sequence. No consistent and reliable facing indicators have been established in the units on the property.

During 1991, some detailed mapping was carried out by K. Barron on the property in areas of complex folding and faulting of the Timiskaming Group rocks, especially to provide better correlation between the earlier geological mapping and the drilling results. A revised geology map with the interpreted changes, especially in areas underlain by altered fine grained sediments and volcanics, and showing the projections of the drill holes is on Drawings GL-026 to GL-029 at a scale of 1:2,500.

The individual stratigraphic units are difficult to distinguish due to rapid along-strike and down-dip gradations and interfingering between pyroclastic volcanic rocks, epiclastic volcanic rocks and clastic sediments. Theses sedimentary and volcanic rocks are diagnostic of an extremely dynamic palaeo-environment with a high degree of topographic relief and multiple volcanic pulses. In such an environment laterally extensive units would not be expected. This type of environment is also characterised by syn-deformational growth-faults, which further complicate stratigraphic correlation. This complex stratigraphic picture is indicative of deposition close to the original volcanic source. Stratigraphic interpretation is further hampered by the complex

structural picture, with both complex folds and numerous, closely spaced faults which dismember the individual layers in the stratigraphic assemblage into isolated segments.

The unit usually interpreted as an augite syenite within the Amalgamated Kirkland syenite body may be a series of mafic trachyte flows. No other units which are more definitive as flows have been mapped on the property.

The coarsest pyroclastic rock is a lapilli tuff with variously sized, angular, polymictic fragments in an ash matrix of similar composition. Most of the fragments are different coloured phases of porphyritic trachyte[1] with different phenocryst sizes and densities. This rock is typically strongly magnetic and forms a distinct mappable unit north of the Larder Lake Fault Zone, and just south of the base-line. Other, lapilli-tuff units grade progressively into rocks with fewer and finer clasts, and to rocks with a finer matrix.

The distinction between the volcanic and the sedimentary rocks is based on the presence of quartz grains and/or jasper grains or clasts in the rocks described as sediments. It is, however, often difficult to distinguish in core or outcrop between the lapilli-tuffs and the conglomerates, or between the ash-tuffs and the graywackes, particularly where they are pervasively altered by chlorite and carbonate, as on most of the property.

Whilst the sedimentary units typically include conglomerates, graywackes and mudstones, it is possible to distinguish horizons which are characterised as containing a higher proportion of conglomerate from others which are dominantly graywacke and mudstone. One unit is a distinctive, thinly bedded, inter-layered black mudstone and light grey graywacke. This distinctive banded unit was seen to grade rapidly into a lapilli-tuff.

The Larder Lake Group rocks to the south of the Larder Lake Fault Zone are found as large xenoliths or roof-pendants within the Murdock Creek Stock, or as highly strained units within the broad area underlain by the Fault Zone. These rocks were originally mafic and ultramafic volcanic rocks, with minor interbedded clastic sediments and iron formations. They are now amphibolites or various talc + chlorite + carbonate schists.

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[1]"Trachyte" is a local field term used to describe volcanic rocks with a trachytic texture, locally including phenocrysts which have been called pseudo-leucites; the actual chemical composition of these rocks, whether as flows or pyroclastic units, is difficult to establish due to the pervasive regional alteration, but they may be phonolites or basaltic-andesites. There are no preserved feldspathoidal mineral which would definitely indicate an "alkalic" petrological association.

5.2 Intrusive Rocks

The Murdock Creek syenite is a multi-phase zoned body. The area east of Murdock Creek is mostly underlain by a fine to medium leuco-syenite phase, whereas that to the west is mostly a medium to coarse grained meso-syenite. There is a distinct area of carbonate alteration within the stock, orientated 015° and just to the east of the Creek, which was previously described as "felsite". This alteration zone may mark the trace of the Lakeshore fault south of the Larder Lake Break.

The northern part of the property is mostly underlain by a complex syenite body referred to as the Amalgamated Kirkland syenite. Most of the outcrop exposures are of a leuco-syenite and are feldspar-phyric. The area to the west, which is poorly exposed beneath the swampy area south of the Industrial Plaza, has been shown on previous maps (e.g. Thomson, 1950) as mafic syenite, presumably from the historical drilling of the Amalgamated Kirkland mineralization. However, the 1991 drilling has shown that both the eastern (hole AK91-34) and western (AK91-37) areas are mostly augite syenite or mafic "trachyte", intruded by numerous feldspar porphyry dykes. The latter are clearly more resistive to weathering, giving the false impression in the outcrop mapping of the relative proportions of mafic and felsic syenite in each area.

Smaller bodies mapped as syenite intrude the Timiskaming volcanic and sedimentary rocks south of the Amalgamated Kirkland syenite. Most of these are orientated close to 070°, the principal mineralized direction. However, some units mapped previously as syenite are probably a phase of alteration related to the mineralization.

5.3 Structure

Dips and strikes within the Timiskaming volcanic and sedimentary units are highly variable and reflect a complex pattern of tight anticlinal and synclinal drag-folds. The central limb of these drag-folds is often missing, being represented by a zone of shearing, leaving mostly east closing, and few west closing fold patterns defined mostly by the interbedded sedimentary units. Local dips and strikes are often conflicting, possibly because they represent original high angle of rest sedimentary structures within this high energy palaeo-environment.

The main mineralized zones are parallel to the axial planes of these folds, and may represent replacement bodies along the axial planes. Alternatively, they occupy syn-depositional structures reactivated during subsequent structural events. There are distinct facies differences in the units to the north and south of the mineralized zone, as well as between the units to the

north and south of the base-line. Although there are no obvious, mappable faults orientated at 070° at either of these facies boundaries, they probably represent growth faults within the volcanic and interbedded sedimentary sequence.

The principal structural feature on the property is the Larder Lake Fault Zone, which lies between the Timiskaming Group and the Murdock Creek Stock. Diamond drilling to the immediate east of the Amalgamated Kirkland property has demonstrated that the fault zone dips south at about 50°, and is a complex of splay faults enclosing variably deformed and altered volcanic rocks of the Larder Lake Group.

The Amalgamated Kirkland Fault strikes 050° and passes through the northwest corner of the property.

The Murdock Creek Fault strikes at 040° (035° to 045°) through the centre of the property and appears to off-set or deflect the trace of the Larder lake Fault Zone. Based on the underground development in the Glenora shaft to the northeast of the property this fault dips to the north west at 75°-80°. A series of closely spaced, northwest dipping faults, sub-parallel to the Murdock Creek Fault dissect the Timiskaming volcanic and sedimentary assemblage throughout the property, with a dominantly sinistral sense of motion. These are referred to as the "Murdock Creek Fault set". They are seen in the field and core as chlorite + carbonate ± pyrite alteration zones with closely spaced pressure-solution cleavage. These faults post-date and off-set the major mineralized zones on the property.

The Lakeshore Fault strikes 020° (015° to 025°) and dips to the west at 75°-80°. It passes along the eastern side of claim L.500057, and appears to be the youngest of the faults on the property. There are many small fault off-sets at outcrop scale across the property with similar orientation and dextral motion which form the "Lakeshore Fault set".

5.4 Alteration and Mineralization

The principal mineralization on the property is the "102/103" zone as discussed above in Section 3.0. This gold mineralization is associated with pyritic, sericitic, and carbonate alteration. The best mineralization is found in silicified, blue-grey quartz-breccia zones containing up to 30% fine grained pyrite, as well as local and minor galena and molybdenite.

Distinctive alteration zones have been mapped around the quartz + pyrite + gold mineralization. The outermost alteration consists of intense development of chlorite and carbonate. This progresses towards the mineralization zone into an outer envelope of sericite replacing the chlorite, and of hematite replacing the primary magnetite in the sedimentary and volcanic rocks. Closer to the mineralization there is a distinctive zone of alteration with the development of euhedral chlorite spots within the sericite and carbonate groundmass. These chlorite spots may be replacing an earlier unknown phyllosilicate or peraluminous mineral. One phase of the hematitic alteration is represented by a strong red colouration in a strongly silicified rock which is difficult to distinguish from the syenite dykes. However, it is not usually porphyritic, except where it replaces originally porphyritic trachyte clasts. In the main zone of alteration and mineralization which host the quartz veins and breccia zones the hematite is replaced by pyrite, and the remaining chlorite by sericite.

Whilst the mineralization in the "102" zone is clearly related to sericite alteration, there is little accompanying foliation or "sericite-schist". The structural controls on the mineralization are not fully understood, but the zone appears to be related to either syn-depositional growth-faults, and/or to the axes of one or more tight folds within a complex of drag-folded and faulted, interbedded, coarse pyroclastic and epiclastic units. The mineralized zones strike approximately 070° and dip steeply, close to vertical; they are offset by northeast striking and northwest dipping cross faults, probably as part of the Murdock Creek Fault set.

Other mineralized zones on the property are located at the eastern and western ends of the Amalgamated Kirkland syenite. The mineralization to the east was explored from the Hunton shaft and is mostly a series of quartz veins within Timiskaming Group sedimentary rocks and the syenite. The mineralization to the west overlaps the boundary of the property, immediately beneath and to the east of the Industrial Plaza; it is known as the Amalgamated Kirkland Zone. Historical drilling as well as hole AK91-34 has demonstrated the existence of a number of altered and gold-anomalous zones within the Amalgamated Kirkland syenite between these two mineralized areas.

6.0 DRILLING

6.1 Drilling Programme

Diamond drilling on the Amalgamated Kirkland property was started on July 29th and completed on October 3rd, 1991 by Heath & Sherwood Drilling (1986) Inc. of Kirkland Lake under the supervision of W. Benham. Ten holes were drilled for a total of 3718.35 metres. A total of 1797 sawn core samples were assayed for gold at Swastika, Ontario, using one assay ton fusions by Swastika Laboratories Ltd. Forty-seven quartered core samples and 144 reject samples from selected mineralized drill intersections were sent to Bondar-Clegg in Ottawa for check assaying.

These ten holes were drilled to follow-up and extend the mineralization identified in the 1990 program, as well as to test some interpreted parallel structures and two areas underlain by the Amalgamated Kirkland syenite body, at depth beneath historically reported mineralized intersections.

Seven holes were targeted on the "102" structure along strike, and at greater depths than tested by the 1990 program. Hole AK91-29 was planned to intersect the zone 100 metres further east than tested previously at a depth of 125 metres, and hole AK91-35 to explore the gap between the main part of the "102" zone tested by closely spaced drilling in 1990 and the mineralization around the eastern Canadian Kirkland Shaft, the "101-7290 zone and in hole AK90-28.

Holes AK91-30, -31, -32 and -33 were drilled at 200 metre horizontal intervals at a vertical depth of approximately 300 metres beneath the area of the closely spaced drilling along the "102" zone. Hole AK91-38 was drilled beneath the intersection in AK91-31 at a vertical depth of 525 metres.

Hole AK91-36 was a short hole drilled south of AK91-35 to explore an area of alteration and discontinuous syenite bodies related to either the "99", "100" or "101" zones.

Holes AK91-34 and -37 were drilled to test a series of alteration zones within and to the immediate south of the Amalgamated Kirkland Syenite body in the northwest corner of the property.

6.2 Drill Results

The results of the drilling are described in drill logs AK91-29 to AK91-38 (Appendix I) and illustrated on drill sections DC-010, DC-017, DC-022 and DC-034 to DC-040 inclusive, at a scale of 1:500. Nine holes were logged by M. Masson and one hole, AK91-36, was logged by W. Benham. Drill hole locations are shown on Drawing DP-003 at a scale of 1:2,500. A listing of the significant gold intersections, i.e. any assays greater than 1.0 g/t Au or any intervals which average greater than 100 ppb Au over at least 3.0 metres, is presented in Table I. Assay certificates are located in Appendix II and all sampled intervals and assay results are recorded in the drill logs. Longitudinal sections of the "102" and "103" structures, at a scale of 1:2,500, are shown on Drawings DL-006 and DL-007 respectively.

Hole AK91-29, which tested a weak IP anomaly at 87+00 E, 102+25 N, 100 metres to the east of hole AK90-26, intersected pyritic quartz veins in sericitic tuffs, graywackes and mudstones, which assayed 0.47 g/t Au over 12.00 metres including 1.05 g/t Au over 3.20 metres. This intersection is offset approximately 20 metres to the northeast from the projected strike extension of the "102" zone by a strong cross-fault.

Hole AK-30, which undercut hole AK90-26 along 86+00 E, probably intersected a fault gap in the "102" structure at about 84 metres down the hole; alternatively, the bleached, sericitic interval, which was intersected from 304.0 to 347.0 metres, is a non-mineralized section of the "102" structure.

Hole AK91-30 was drilled from north to south in order to avoid hole flattening problems related to the northwest dipping faults encountered in hole AK91-29 and as a result the "103" gold zone was discovered higher in this hole, approximately 100 metres to the north of the "102" zone. This new zone consisted of silicified, sericitic conglomerates with pyritic quartz veins from 107.0 to 118.3 metres, where they averaged 1.80 g/t Au over the 11.30 metres, including 11.01 g/t Au over 0.50 metres and 15.12 g/t Au over 0.40 metres. This new gold discovery is associated with a geophysically interpreted structure which has been traced across the property by a series of low magnetic linear anomalies and IP chargeability anomalies. Some weak gold mineralization which was previously intersected in hole AK90-22 along 88+25 E (0.42 g/t Au over 1.00 metres and 0.36 g/t Au over 0.40 metres) is possibly related to this "103" structure.

Hole AK91-31, tested the "102" structure 200 metres below hole AK90-24 on section 81+90 E. The "102" gold zone was intersected from 359.10 to 364.25 metres at a vertical depth of 310 metres. This significant intersection assayed 9.70 g/t Au over 5.15 metres, including 42.43 g/t Au over 0.50 metres, 12.52 g/t Au over 0.30 metres and 23.43 g/t Au over 0.85 metres. The

mineralized zone consists of 5 to 45 cm wide, blue-grey, pyritic, quartz breccia veins, within pyritic, fractured, chloritic, sericitic and silicified graywackes and conglomerates. Very fine grained "dusty" native gold was observed at 359.2 metres.

Hole AK91-31 also intersected the "103" gold zone from 258.4 to 261.5 metres where it averaged 3.63 g/t Au over 3.10 metres, including 27.12 g/t Au over 0.40 metres, related to a 30 cm wide, pyritic quartz vein in weakly to moderately sericitic graywacke.

Hole AK91-32 was drilled to test the "102" structure approximately 235 metres below AK90-03 along 84+00 E. The "102" zone may be represented by 0.70-1.10 metres wide quartz and chlorite breccia zones with traces of pyrite, which were intersected from 336.6 to 351.7 metres in weakly sericitic and silicified graywackes and conglomerates. However, no anomalous assays were returned from this section.

Hole AK91-32 was drilled from south to north and the projected down-dip extension of the "103" structure should be approximately 75 to 100 metre beyond the bottom of the hole.

Hole AK91-33 tested the "102" and "103" structures 200 metres to the west of the hole AK91-31. No significant mineralization was encountered. The "102" zone was intersected from 378.8-379.25 metres in sericitic lapilli tuffs, but only assayed 0.16 g/t Au over 0.45 metres. The "103" gold zone is interpreted to be at 275.5-276.10 metres in sericitic graywacke, where this narrow interval assayed 0.13 g/t Au over 0.60 metres.

Hole AK91-34, along section 81+90 E, tested part of the Amalgamated Kirkland syenite where mineralized intersections had been reported from holes A5 and A6 drilled in 1939, as well a series of linear, zones of low magnetic amplitude which are sub-parallel to the "102" structure, both within the syenite and to the south within the adjacent sedimentary and volcanic rocks. An altered zone within the sedimentary rocks, south of the syenite contact, interpreted as the "105" structure, from 205.5-208.9 metres, returned 0.28 g/t Au over 3.4 metres. Three hematitic, brecciated feldspar porphyritic syenite dykes, intruding mafic syenites and/or trachyte flows, assayed 0.27 g/t Au over 5.0 metres (246.0-251.0 metres), 1.15 g/t Au over 0.70 metres (337.1-337.8 metres) and 0.28 g/t Au over 8.6 metres (422.4-431.0 metres).

Holes AK91-35 and AK91-36 were drilled as a cross-section along section 76+00 E, to test a series of sub-parallel geological lineaments and zones of low magnetic amplitude, any one of which could have represented the projected extension of either the "102" of "103" structures. This section is midway within a 550 metre wide gap between hole AK90-28, which returned 1.89 g/t Au over 2.0 metres close to the western boundary of the property, and hole AK90-11, which

failed to locate the "102" zone at the western end of the area of concentrated drilling on the "102" zone in 1990.

Hole AK91-35 intersected chloritic, weakly foliated conglomerates, interpreted as the "102" zone, from 223.0-226.0 metres where they assayed 0.13 g/t Au over 3.00 metres. A deeper zone intersected from 344.0 to 347.5 metres, which may be equivalent to the "103" zone, averaged 3.11 g/t Au over 3.45 metres, including 18.88 g/t Au over 0.55 metres. This interval contains a 30 cm wide silicified zone with 8-10% pyrite and < 0.5% chalcopyrite and molybdenite.

There were no anomalous assays in hole AK91-36 which tested a low magnetic anomaly, as well as a shear zone and associated syenite dykes at 100+60 N on 76+00 E, to the immediate south of hole AK91-35.

Hole AK91-37 tested the Amalgamated Kirkland syenite in the northwest corner of the property, below and to the east of shallow mineralization known historically as the Amalgamated Kirkland zone where shallow drilling in 1939 intersected up to 10.63 g/t Au over 3.6 metres. Two zones of weakly anomalous gold mineralization were intersected. These are related to brick-red hematitic, feldspar-porphyritic syenites which contain trace pyrite and minor quartz + albite veining and intrude mafic hornblende and feldspar porphyritic syenites or trachyte flows and polymictic pebble conglomerates. The interval form 182.0-192.2 metres averaged 0.44 g/t Au over 10.20 metres, including 2.39 g.t Au over 1.00 metres, whilst the weakly mineralized section from 245.0-257.0 metres assayed 0.21 g/t Au over 12.00 metres.

In hole AK91-38, an undercut of hole AK91-31 along section 81+90 E, the "102" structure was intersected from 546.9 to 578.6 metres (31.7 metre core length, estimated true width of 16.1 metres), and consists of widely spaced, 10-95 cm wide pyrite and quartz zones in sericitic lapilli tuffs. Three mineralized sections averaged:

546.9 - 552.0 m	1.97 g/t Au over 5.10 metres including
	8.18 g/t Au over 0.45 metres
568.8 - 573.5 m	0.20 g/t Au over 4.70 metres
577.6 - 578.6 m	2.66 g/t Au over 1.00 metres

The "103" structure in hole AK91-38 consists of two weakly mineralized zones at 387.35 to 390.10 metres and 431.30 to 432.90 metres in sericitic conglomerates and graywackes. The first interval assayed 0.41 g/t Au over 2.75 metres, while the second assayed only trace gold.

6.3 Check Assaying

Forty-seven (47) quartered core samples and 144 reject samples (42 from the 1990 drilling and 102 from 1991) from selected mineralized drill intersections were sent to Bondar-Clegg in Ottawa for check assaying. Comparisons of the assay results from Swastika Laboratories and Bondar-Clegg for the quartered core samples and the rejects samples are listed in Tables 2 and 3 respectively.

The quartered core assay results indicate that samples 9295 (0.02 versus 1.45) and 9296 (0.46 versus 0.11) in hole AK91-38 were probably inadvertently switched, sometime during the original assaying. The description of sample 9295 in the drill logs and check assaying (0.02 versus 1.70) of the reject for 9295 confirms this error.

In general, the assay results from the second lab, Bondar-Clegg, are lower than the initial results from the first lab, Swastika. Excluding sample 9295, eight quartered core samples which assayed greater than 1.00 g/t Au at either lab, were 11.8% lower at Bondar-Clegg than at Swastika, i.e. an average for the eight samples of 5.48 g/t Au versus 6.21 g/t Au.

Excluding sample 9295, thirty-seven reject samples which assayed greater than 1.00 g/t Au at either lab, were 5.1 % lower at Bondar-Clegg than at Swastika, i.e. an average for the thirty-seven samples of 6.71 g/t Au versus 7.07 g/t Au.

Except for samples 7636, 9276 and 9295, all samples which assayed greater than 1.00 g/t Au at one lab, also returned assays of greater than 1.00 g/t Au from the other lab. The results for samples which assayed nil to 1.00 g/t Au are more variable and erratic.

The check assaying of rejects and quartered core indicates that samples of the "102" mineralization do not have a serious "nugget effect" and that the significant assays can be repeated within reasonable limits. After adjusting the Swastika results for the 5.1% difference between the two labs, the larger core samples, (i.e. half core versus quarter core or the approximate equivalent of NQ core versus BQ core), gives assays 7.0% higher than the smaller core samples.

6.4 Discussion of Drill Results

Although no bodies of economic mineralization have been outlined, the results of the 1991 drill programme are significant because they indicate that the mineralized "102" zone does include individual intersections of potential economic interest, and that overall it extends to depths below

the 500 metre level and over a strike length of at least 1,550 metres. Considerably closer spaced drilling than the existing drill pattern, which is mostly on 200 metre centres away from the original shallow drilling beneath the surface showing, and/or underground exploration would be required to delineate mineable ore shoots.

The 1991 drill programme also discovered the "103" zone. There are insufficient intersections in the "103" to know if it is as extensive as the "102" zone. In the western part of the property the interpreted intersection of the "103" in hole AK91-35 may be the "102" which has changed strike slightly to the north to the northwest of a major cross-fault. This possible change in strike would correspond to a similar re-orientation of the Larder Lake Fault Zone immediately to the south. However, it is also possible that the "103" intersections in holes AK91-30 and 31 are footwall splays or subsidiary veins to the primary "102" structure. Further drilling is required to determine if the "103" is a separate zone with any economic potential.

The geochemically anomalous gold mineralization, which was intersected over appreciable widths of 5.00 to 25.00 metres, in holes AK91-34 and 37 is associated with felsic syenites which intrude the Amalgamated Kirkland mafic syenites and/or mafic trachyte flows. This mineralization is of interest because of the significant widths of anomalous assays which were intersected in both holes, as well as because of the similarities in host rock lithologies to the ore bodies which have been mined along the Kirkland Lake Main Break. Previous shallow drilling intersected "ore grade" mineralization in the Amalgamated Kirkland syenites. Further drilling at depth may be warranted.

7.0 CONCLUSIONS AND RECOMMENDATIONS

As a result of the 1989-91 program on the Amalgamated Kirkland property a series of sub-parallel mineralized zones or structures have been discovered within an area which extends for at least 1,550 metres along strike, and over a stratigraphic interval about 800 metres wide as a complexly folded sequence of Timiskaming volcanic, sedimentary and minor intrusive rocks. These mineralized zones are parallel to the Kirkland Lake "Main Break", approximately 1500 metres to the immediate north, and to the Larder Lake Break to the immediate south.

The most important mineralization as tested to date is the "102/103" zone, which has been traced for 1,550 metres along strike by stripping and drilling. It consists of a series of sub-parallel mineralized structures which are open at depth, especially given the wide spacing of the deeper holes. The surface stripping and shallow drilling in 1990 showed that the individual mineralized structures are continuous along strike, but locally disrupted by later faulting, and the deeper drilling in 1991 has shown that the overall system is continuous to a depth of 525 metres. Whilst no body of economic mineralization has yet been located, many of the intersection widths and average grades are indicative of a significant mineralized system with the potential to host ore-shoots characteristic of the Kirkland Lake district.

Closer-spaced drilling or underground exploration would be required to delineate any ore shoots which may be associated with the "102/103" zone. However, it is recommended that the next phase of drilling should be to extend the 200 metre-spaced pattern to a vertical depth of 700 metres over the known strike length of 1,600 metres to test the overall potential of the zone on the property in order to determine if more detailed drilling or underground exploration would be warranted. Subsequent programs would provide progressive in-fill drilling in areas of stronger mineralization, prior to either close-spaced surface drilling or underground exploration in order to establish the mineral reserves along this system. No further exploration is recommended at this time of the mineralized zones in the Amalgamated Kirkland syenite which were drilled in 1991. However, the structural relationships between the strike and dip of the "102/103" zone and the southern contact of the syenite indicate that the zone should enter into the syenite at a depth of about 700 metres at the west end of the property, and at progressively greater depths to the east. Most of the historical production in the Kirkland Lake district has been from a complex syenite body that is almost identical to the Amalgamated Kirkland syenite; therefore, the potential for economic mineralization along the "102/103" zone is probably greater at depth, after it intersects the syenite body.

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January 24, 1992

TABLE 1 SUMMARY LISTING OF DIAMOND DRILL HOLES

Individual Assays > 1.0 g/t Au or Intersection Averages > 100 ppb Au over > 3.0 metres

Hole No.	Collar				Length		Dates		Intersections				
	Easting	Northing	Dip	Azimuth	Proposed	Total	Started (1991)	Completed	Zone	From	To (metre	Au g/t	Length
AK91-29	8700	10155	-62	341	225.00	206.85	29-Jul	01-Aug	102	158.00	170.00	0.47	12.00
										including			
										163.20	166.40	1.05	3.20
AK91-30	8600	10400	-56	161	300.00	387.45	01-Aug	06-Aug	103	107.00	118.30	1.80	11.30
										including			
							and			107.50	112.00	2.88	4.50
										and			
							13-Aug	14-Aug		107.50	108.00	4.01	0.50
										and			
										107.50	109.00	4.88	1.50
										and			
										110.50	112.00	3.71	1.50
										including			
										112.00	118.30	1.15	6.30
										and			
										117.90	118.30	15.12	0.40
									102	No significant assays			
AK91-31	8190	10370	-65	161	300.00	409.75	06-Aug	13-Aug	103	258.40	261.50	3.63	3.10
										including			
										260.50	260.90	27.12	0.40
									102	359.10	364.25	9.70	5.15
										including			
										359.10	359.60	42.43	0.50
										and			
										361.90	362.20	12.52	0.30
										and			
										363.40	364.25	23.43	0.35
AK91-32	8400	10035	-60	341	300.00	390.80	15-Aug	20-Aug	102	No significant assays			
AK91-33	8000	10370	-65	161	250.00	454.75	21-Aug	28-Aug	103	No significant assays			
									102	No significant assays			

TABLE 1

SUMMARY LISTING OF DIAMOND DRILL HOLES

Individual Assays > 1.0 g/t Au or Intersection Averages > 100 ppb Au over > 3.0 metres

Hole No.	Collar				Length		Dates		Intersections				
	Easting	Northing	Dip	Azimuth	Proposed	Total	Started (1991)	Completed	Zone	From	To (metre	Au g/t	Length
AK91-34	8191	10365	-55	341	375.00	450.00	29-Aug	05-Sep	105	205.50	208.90	0.28	3.40
									106	246.00	251.00	0.27	5.00
									A5,6	337.10	337.80	1.15	0.70
									107	422.40	431.00	0.28	8.60
AK91-35	7600	10100	-50	341	375.00	365.50	06-Sep	12-Sep	102	223.00	226.00	0.13	3.00
									103	344.05	347.50	3.11	3.45
									including				
										344.05	344.60	18.88	0.55
AK91-36	7600	10010	-50	341	140.00	132.80	12-Sep	14-Sep	No significant assays				
AK91-37	7500	10245	-61	341	300.00	301.35	15-Sep	21-Sep	106	182.00	192.20	0.44	10.20
									including				
										182.00	183.00	2.39	1.00
									A5,6	239.00	264.00	0.18	25.00
									including				
										239.50	240.00	1.46	0.50
AK91-38	8190	10388	-74	161	600.00	619.10	22-Sep	03-Oct	103	387.35	390.10	0.41	2.75
									including				
										389.50	390.10	1.14	0.60
									102	546.90	552.00	1.97	5.10
									including				
										546.90	547.35	8.18	0.45
									102	568.80	573.50	0.20	4.70
									102	577.60	578.60	2.66	1.00
									including				
										578.10	578.60	4.55	0.50
TOTAL					3165.00	3743.35							

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TABLE 2

CHECK ASSAYING-QUARTERED CORE

				SWASTIKA				BONDAR-CLEGG					
				Original Sample 1/2 Core				1/4 Core					
Hole No.	From	To	Length	Sample	Au 1	Au 2	Avg.	Sample	Au 1	Au 2	Avg.	Diff.	% Diff
AK90-05	58.00	58.50	0.50	6518	0.10			13851	0.07			-0.03	-30
	58.50	59.00	0.50	6519	0.13			13852	0.09			-0.04	-31
	59.00	59.50	0.50	6520	0.18			13853	0.19			0.01	6
	59.50	60.00	0.50	6521	0.12			13854	0.12			0	0
	60.00	60.50	0.50	6522	0.25	0.25	0.25	13855	0.11			-0.14	-56
	60.50	61.00	0.50	6523	0.07			13856	<0.07			0	0
	61.00	61.50	0.50	6524	0.28	0.26	0.27	13857	0.25			-0.03	-11
	61.50	62.00	0.50	6525	0.11			13858	0.10			-0.01	-9
AK90-18	61.00	62.00	1.00	7029	0.18			13859	0.11			-0.07	-39
	62.00	63.00	1.00	7030	2.09			13860	1.93			-0.16	-8
	63.00	63.60	0.60	7031	-0.10			13861	0.12			0.02	-20
	63.60	64.40	0.80	7032	0.05			13862	0.07			0.02	40
	64.40	64.90	0.50	7033	0.07			13863	<0.07			-0.01	-14
	64.90	65.50	0.60	7034	0.49			13864	0.61			0.12	24
	65.50	66.20	0.70	7035	0.27			13865	0.16			-0.11	-41
	66.20	67.20	1.00	7036	0.12			13866	0.09			-0.03	-25
	67.20	67.70	0.50	7037	16.27	16.53	16.40	13867	16.33	16.38	16.36	-0.04	-0
AK90-24	136.25	136.50	0.25	7769	0.50			13868	0.07			-0.43	-86
	136.50	137.00	0.50	7770	0.20			13869	0.31			0.11	55
	137.00	137.50	0.50	7771	0.61			13870	0.31			-0.30	-49
	137.50	138.50	1.00	7772	0.24			13871	<0.07			-0.25	-104
	138.50	139.00	0.50	7773	7.44	5.63	6.54	13872	5.89	6.02	5.96	-0.58	-8
	139.00	140.00	1.00	7774	6.31	6.19	6.25	13873	3.68	4.20	3.94	-2.31	-37
	140.00	141.00	1.00	7775	0.05			13874	<0.07			0	0
AK90-25	102.65	103.40	0.75	7817	0.25			13875	0.24			-0.01	-4
	103.40	103.90	0.50	7818	0.04			13876	<0.07			0.00	0
	103.90	104.40	0.50	7819	7.70	8.32	8.01	13877	5.51	6.10	5.81	-2.20	-29
	104.40	104.90	0.50	7820	0.12			13878	<0.07			-0.06	-50
	104.90	105.50	0.60	7821	0.02			13879	<0.07			0	0
	105.50	106.00	0.50	7822	0.15			13880	<0.07			-0.09	-60
AK90-26	120.00	120.45	0.45	7858	0.31			13881	0.15			-0.16	-52
	120.45	121.20	0.75	7859	7.63	6.60	7.12	13882	6.64	6.93	6.79	-0.33	-4
	121.20	121.65	0.45	7860	1.00			13883	1.01			-0.01	-1
	121.65	122.35	0.70	7861	2.30			13884	2.02			-0.28	-12
	122.35	123.00	0.65	7862	0.42			13885	0.40			-0.02	-5
AK91-38	559.15	559.60	0.45	9295	0.02			13886	1.48			1.46	(7300)
	559.60	560.10	0.50	9296	0.46			13887	0.11			-0.35	-76
	560.10	560.60	0.50	9297	0.20			13888	<0.07			0.14	70
	560.60	569.30	8.70	9312	0.76			13889	0.66			-0.10	-13
	569.30	569.80	0.50	9313	0.12			13890	0.16			0.04	33
	569.80	570.30	0.50	9314	0.02			13891	<0.07			0	0
	570.30	571.00	0.70	9315	0.09			13892	<0.07			-0.03	-33
	571.00	571.50	0.50	9316	0.36			13893	0.14			-0.22	-61
	571.50	572.00	0.50	9317	NIL			13894	0.09			0.09	100
	572.00	572.50	0.50	9318	NIL			13895	<0.07			0	100
	572.50	573.00	0.50	9319	0.02			13896	<0.07			0	0
	573.00	573.50	0.50	9320	0.46			13897	0.43			-0.03	-7
Average					1.24				1.06				-12

Note: Samples 9295 and 9296 were probably switched in the Swastika Laboratory

TABLE 3

CHECK ASSAYING-REJECTS

				SWASTIKA				BONDAR-CLEGG				
				Original Sample				Reject from Swastika				%
Hole No.	From	To	Length	Sample	Au 1	Au 2	Avg.	Au 1	Au 2	Avg.	Diff.	Diff
AK90-01	59.40	59.90	0.50	6244	0.86			0.87			0.01	1
	59.90	60.40	0.50	6245	0.36			0.70			0.34	94
AK90-03	65.60	66.10	0.50	6416	0.83			0.73			-0.10	-12
	71.40	72.10	0.70	6423	2.13	2.14	2.14	2.02			-0.12	-6
	72.10	73.00	0.90	6424	0.31			0.60			0.29	94
	73.00	74.00	1.00	6425	0.31			0.33			0.02	6
	74.00	74.60	0.60	6426	0.53			0.57			0.04	8
	74.60	75.10	0.50	6427	0.10			0.17			0.07	70
	75.10	75.80	0.70	6428	0.02			0.10			0.08	400
	75.80	76.60	0.80	6429	0.97			0.93			-0.04	-4
AK90-05	58.00	58.50	0.50	6518	0.10			0.20			0.10	100
	58.50	59.00	0.50	6519	0.13			0.13			0	0
	59.00	59.50	0.50	6520	0.18			0.23			0.05	28
	59.50	60.00	0.50	6521	0.12			0.13			0.01	8
	60.00	60.50	0.50	6522	0.25	0.25	0.25	0.27			0.02	8
	60.50	61.00	0.50	6523	0.07			0.10			0.03	43
	61.00	61.50	0.50	6524	0.28	0.26	0.27	0.20			-0.08	-29
	61.50	62.00	0.50	6525	0.11			0.10			-0.01	-9
	82.00	83.00	1.00	6538	0.15			0.10			-0.05	-33
	83.00	84.00	1.00	6539	0.03			0.10			0.07	233
	84.00	85.00	1.00	6540	0.12			0.17			0.05	42
	85.00	86.00	1.00	6541	0.17	0.15	0.16	0.17			0.01	6
	86.00	87.00	1.00	6542	0.01			0.20			0.19	1900
	87.00	88.00	1.00	6543	0.06			0.07			0.01	17
	88.00	89.00	1.00	6544	0.08			0.10			0.02	25
AK90-06	26.00	26.40	0.40	6583	0.23			0.33			0.10	43
	26.40	27.00	0.60	6584	25.46	27.63	26.55	24.20			-2.35	-9
	27.00	27.50	0.50	6585	3.93			3.67			-0.26	-7
	27.50	28.00	0.50	6586	7.17			5.73			-1.44	-20
	28.00	28.50	0.50	6587	8.22	9.24	8.73	8.53			-0.20	-2
	28.50	29.10	0.60	6588	4.92			4.33			-0.59	-12
	29.10	30.00	0.90	6589	1.85			1.80			-0.05	-3
AK90-07	80.50	81.00	0.50	6646	2.22			2.03			-0.19	-9
	81.00	82.00	1.00	6647	0.03			<0.07			0	0
	82.00	83.00	1.00	6648	0.33			<0.07			-0.33	-100
	83.00	84.00	1.00	6649	5.45	5.66	5.56	5.43			-0.02	-0
	84.00	84.50	0.50	6650	0.11			0.10			-0.01	-9
	84.50	85.20	0.70	6651	0.18			0.20			0.02	11
AK90-08	74.00	75.00	1.00	6687	2.08			2.43			0.35	17
	75.00	75.85	0.85	6688	0.03			0.13			0.10	333
	75.85	76.55	0.70	6689	9.96	10.12	10.04	11.53			1.49	15
AK90-09	93.65	94.25	0.60	6741	11.42	11.08	11.25	10.93			-0.15	-1

TABLE 3

CHECK ASSAYING-REJECTS

				SWASTIKA				BONDAR-CLEGG				
				Original Sample				Reject from Swastika				%
Hole No.	From	To	Length	Sample	Au 1	Au 2	Avg.	Au 1	Au 2	Avg.	Diff.	Diff
AK91-29	158.50	159.00	0.50	7629	0.11			0.14			0.03	27
	159.00	159.50	0.50	7630	0.72			0.71			-0.01	-1
	159.50	160.15	0.65	7631	0.99			0.98			-0.01	-1
	160.15	161.00	0.85	7632	0.04			<0.07			0	0
	161.00	162.00	1.00	7633	0.01			0.21			0.20	2000
	162.00	162.80	0.80	7634	0.02			<0.07			0	0
	162.80	163.20	0.40	7635	0.13			0.13			0	0
	163.20	163.70	0.50	7636	0.89			1.16			0.27	30
	163.70	164.50	0.80	7637	1.64			1.77			0.13	8
	164.50	165.00	0.50	7638	0.20			0.23			0.03	15
	165.00	166.00	1.00	7639	1.17			1.10			-0.07	-6
	166.00	166.40	0.40	7749	0.84			0.74			-0.10	-12
	166.40	167.30	0.90	7750	0.32			0.21			-0.11	-34
	167.30	167.80	0.50	7751	0.30			0.23			-0.07	-23
	167.80	168.30	0.50	7752	0.06			0.09			0.03	50
	168.30	169.20	0.90	7753	0.46			0.41			-0.05	-11
	169.20	170.00	0.80	7754	0.10			0.09			-0.01	-10
AK91-30	107.00	107.50	0.50	7660	0.23			0.28			0.05	22
	107.50	108.00	0.50	7661	10.63	11.38	11.01	10.51	12.30	11.41	0.40	4
	108.00	109.00	1.00	7662	1.82			1.74			-0.08	-4
	109.00	110.00	1.00	7663	0.04			<0.07			0	0
	110.00	110.50	0.50	7664	0.03			<0.07			0	0
AK91-30	110.50	111.00	0.50	7665	3.50			2.81			-0.69	-20
	111.00	112.00	1.00	7666	3.81			4.49	4.72	4.61	0.80	21
	112.00	113.00	1.00	7667	0.58			0.39			-0.19	-33
	113.00	114.00	1.00	7668	0.07			0.07			0	0
	114.00	115.00	1.00	7669	0.24			0.29			0.05	21
	115.00	116.00	1.00	7670	NIL			<0.07			0	
	116.00	117.00	1.00	7671	0.12			<0.07			-0.06	-50
	117.00	117.90	0.90	7672	0.22			0.26			0.04	18
	117.90	118.30	0.40	7673	16.39	13.85	15.12	12.76			-2.36	-14
AK91-31	258.40	259.00	0.60	7847	0.15			0.11			-0.04	-27
	259.00	260.00	1.00	7848	0.10			0.09			-0.01	-10
	260.00	260.50	0.50	7849	0.16			0.20			0.04	25
	260.90	261.50	0.60	7851	0.25			0.47			0.22	88
	358.60	359.10	0.50	7940	0.14			0.07			-0.07	-50
	359.10	359.60	0.50	7941	45.09	39.77	42.43	40.44			-1.99	-4
	359.60	360.00	0.40	7942	2.90			2.50			-0.40	-14
	360.00	360.50	0.50	7943	0.22			0.26			0.04	18
	360.50	361.00	0.50	7944	1.94			1.77			-0.17	-9
	361.00	361.50	0.50	7945	2.73			2.71			-0.02	-1
	361.50	361.90	0.40	7946	0.95			0.82			-0.13	-14
	361.90	362.20	0.30	7947	12.52			12.69			0.17	1

TABLE 3

CHECK ASSAYING-REJECTS

				SWASTIKA				BONDAR-CLEGG				
				Original Sample				Reject from Swastika				%
Hole No.	From	To	Length	Sample	Au 1	Au 2	Avg.	Au 1	Au 2	Avg.	Diff.	Diff
AK91-31	362.20	362.70	0.50	7948	0.86			0.34			-0.52	-60
	362.70	363.10	0.40	7949	0.07			0.26			0.19	271
	363.10	363.40	0.30	7950	2.09			2.80			0.71	34
	363.40	363.85	0.45	7951	20.78			18.96	22.05	20.51	-0.27	-1
	363.85	364.25	0.40	7952	27.27	25.54	26.41	23.54			-2.87	-11
	364.25	364.65	0.40	7953	0.13			0.19			0.06	46
AK91-33	251.20	251.55	0.35	8283	0.02			<0.07			0	0
	272.10	273.00	0.90	8311	0.03			<0.07			0	0
	273.00	273.50	0.50	8312	0.02			<0.07			0	0
	273.50	274.50	1.00	8313	0.04			0.09			0.05	125
	274.50	275.50	1.00	8314	0.02			<0.07			0	0
	275.50	276.10	0.60	8315	0.13			0.08			-0.05	-38
	276.10	277.00	0.90	8316	0.01			<0.07			0	0
	378.00	378.80	0.80	8366	0.03			<0.07			0	0
	378.80	379.25	0.45	8367	0.16			0.09			-0.07	-44
	379.25	380.00	0.75	8368	0.03			0.13			0.10	333
AK91-38	387.35	388.00	0.65	9179	0.11			0.09			-0.02	-18
	388.00	388.90	0.90	9180	0.39			0.36			-0.03	-8
	388.90	389.50	0.60	9181	0.03			0.11			0.08	267
	389.50	390.10	0.60	9182	1.09	1.18	1.14	0.86			-0.28	-26
	546.30	546.90	0.60	9270	0.09			0.08			-0.01	-11
	546.90	547.35	0.45	9271	8.37	7.99	8.18	7.19			-0.99	-12
	547.35	547.75	0.40	9272	0.22			0.28			0.06	27
	547.75	548.45	0.70	9273	2.76			2.65			-0.11	-4
	548.45	549.00	0.55	9274	0.05			<0.07			0	0
	549.00	549.50	0.50	9275	1.62			1.15			-0.47	-29
	549.50	550.00	0.50	9276	0.96			1.06			0.10	10
	550.00	550.50	0.50	9277	0.75			0.83			0.08	11
	550.50	551.00	0.50	9278	2.33			2.04			-0.29	-12
	551.00	551.50	0.50	9279	1.25			1.00			-0.25	-20
	551.50	552.00	0.50	9280	1.74			2.02			0.28	16
	559.15	559.60	0.45	9295	0.02			1.71	1.90	1.81	1.79	8950
	559.60	560.10	0.50	9296	0.46			0.21			-0.25	-54
	560.10	560.60	0.50	9297	0.20			<0.07			-0.14	-70
	566.50	567.00	0.50	9308	0.29			0.25			-0.04	-14
	567.00	567.50	0.50	9309	0.02			<0.07			0	0
	567.50	568.00	0.50	9310	0.02			<0.07			0	0
	568.00	568.80	0.80	9311	0.03			<0.07			0	0
	568.80	569.30	0.50	9312	0.76			0.64			-0.12	-16
	569.30	569.80	0.50	9313	0.12			0.15			0.03	25
	569.80	570.30	0.50	9314	0.02			<0.07			0	0
	570.30	571.00	0.70	9315	0.09			<0.07			-0.03	-33
	571.00	571.50	0.50	9316	0.36			0.12			-0.24	-67
	571.50	572.00	0.50	9317	NIL			<0.07			0	

TABLE 3

CHECK ASSAYING-REJECTS

				SWASTIKA				BONDAR-CLEGG				%
				Original Sample				Reject from Swastika				
Hole No.	From	To	Length	Sample	Au 1	Au 2	Avg.	Au 1	Au 2	Avg.	Diff.	Diff
AK91-38	572.00	572.50	0.50	9318	NIL			<0.07			0	
	572.50	573.00	0.50	9319	0.02			<0.07			0	0
	573.00	573.50	0.50	9320	0.46			0.32			-0.14	-30
	573.50	574.00	0.50	9321	0.02			<0.07			0	0
	574.00	574.50	0.50	9322	NIL			<0.07			0	
	574.50	575.00	0.50	9323	0.04			<0.07			0	0
	577.60	578.10	0.50	9329	0.76			0.75	0.65	0.70	-0.06	-8
	578.10	578.60	0.50	9330	4.56	4.53	4.55	3.19	3.84	3.52	-1.04	-23
	578.60	579.10	0.50	9331	0.02			<0.07			0	0
	579.10	579.60	0.50	9332	0.13			0.13			0	0
	579.60	580.10	0.50	9333	0.03			<0.07			0	0
	580.10	580.50	0.40	9334	0.02			<0.07			0	0
	580.50	581.00	0.50	9335	0.01			<0.07			0	0
	581.00	581.50	0.50	9336	0.23			0.10			-0.13	-57
Average					2.01			1.88			-0.08	12.94

APPENDIX I

DIAMOND DRILL LOGS

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	July 30, 1991 - August 2, 1991	**EASTING**	8700.8
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10152.7
CLAIM No.	L 447419	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	313.5
STARTED	July 29, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 1, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	206.85
		SURVEY INSTRUMENT		**UNITS**	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ
COMMENTS	"102" gold zone @ 158.00 - 170.00, 12.0 m.	**SIGNED BY**	(W. Benham)		

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	10.40	**OVERBURDEN**
10.40	45.70	**ASH TUFF**
45.70	52.55	**ASH/LAPILLI TUFF** Hematitic
52.55	54.00	**ASH TUFF**
54.00	73.80	**CONGLOMERATE**
73.80	75.60	**ASH TUFF**
75.60	83.60	**CONGLOMERATE**
83.60	106.00	**ASH TUFF** 94.00 3 mm chalcopyrite + quartz vein
106.00	144.00	**LAPILLI TUFF** Sericitic
144.00	150.00	**LAPILLI TUFF** Bleached, chlorite + sericite.
150.00	159.50	**LAPILLI TUFF** Chlorite ± sericite. 158.10 Quartz + pyrite + chalcopyrite vein, 2 cm wide.
159.50	160.15	**QUARTZ + PYRITE BRECCIA ZONE**
160.15	163.70	**GRAYWACKE** Weakly sericitic. 162.90 - 163.20 Quartz + pyrite + sericite.
163.70	166.00	**MUDSTONE**
		Sericitic, trace pyrite, 1-3% quartz veins.
166.00	169.60	**GRAYWACKE** Chloritic, trace pyrite, 2-10% white quartz veins. 166.40 - 166.90 Fault @ 10-15° tca. 168.30 - 169.20 Fault @ 15° tca.
169.60	177.20	**GRAYWACKE/CONGLOMERATE**
177.20	206.85	**GRAYWACKE** 186.60 - 196.00 Fault zone @ 5° tca.
	260.85	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
158.00	170.00	12.00	0.47
including			
163.20	166.40	3.20	1.05

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	July 30, 1991 - August 2, 1991	**EASTING**	8700.8
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10152.7
CLAIM No.	L 447419	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	313.5
STARTED	July 29, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 1, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	206.85
				UNITS	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ

COMMENTS "102" gold zone @ 158.00 - 170.00, 12.0 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	341	62
12.2			62
46.0			51
93.3			50
120.0			49
137.2			47
185.0			45

Depth	Method	Azimuth	Dip

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
0.00	10.40	**OVERBURDEN** Sand-boulder till.											
10.40	45.70	**ASH TUFF** Massive to finely bedded @ 40° tca. Light grey-green to dirty brown, generally fine to very fine grained with weak, patchy magnetics. Unit is quite homogeneous but displays zones of strong fracturing and brecciation probably associated with late cross-faulting. (Murdock Fault) and numerous sharp, tight chloritic faults. Overall the unit is weakly sericitic with fine spotty sericite throughout.											
		12.80 - 13.40 Fine, pebble conglomerate horizon comprised of 80% buff-brown, aphanitic clasts averaging 0.5 cm (moderate to strong elongation @ 35° tca) and 20% fine heterolithic clasts (jasper and mafic volcanics). Upper contact sharp chlorite + sericite + quartz fault @ 50° tca. Lower contact somewhat gradational.	7551	14.00	15.00	1.00						0.01	
			7552	15.00	16.00	1.00						0.01	
		16.10 - 17.30 Fractured, brecciated zone. Moderately well fractured to brecciated ash tuff. Grey-brown aphanitic ash displaying fractured to brecciated texture cut by fine chlorite + sericite ± quartz infilling (in-situ). Upper and lower contacts marked by sharp, tight chlorite ± quartz slips @ 20° tca. No visible sulphide mineralization.	7553	16.00	16.50	0.50						0.01	
			7554	16.50	17.30	0.80						0.02	
			7555	17.30	18.00	0.70						0.01	
			7556	18.00	19.00	1.00						NIL	
			7557	19.00	20.00	1.00						0.01	
		20.00 - 24.00 Pseudo-brecciated to brecciated ash tuff with irregular, anastomosing chlorite + sericite ± quartz infilling gives zone a patchwork, mottled texture. Patchy non-mineralized areas which are quite hard and probably partially silicified.	7558	20.00	20.50	0.50			10-15			0.01	
			7559	20.50	21.50	1.00				Sil.		0.01	
			7560	21.50	22.00	0.50						0.01	
			7561	22.00	23.00	1.00						0.01	
			7562	23.00	24.00	1.00						0.02	
			7563	24.00	25.00	1.00						0.02	
		27.00 - 31.00 Rubbly broken section due to open, vuggy quartz + ankerite + chlorite slips, up to 3 cm wide, spaced at approximately 0.5 m intervals.	7564	34.00	35.00	1.00						0.02	
			7565	35.00	36.00	1.00						0.02	
			7566	36.00	37.00	1.00						0.01	
			7567	37.00	37.50	0.50						0.03	
		37.50 - 45.70 Brecciated, sericitized ash tuff fractured by 20-25% chlorite ± quartz breccia veins, up to 1-2 cm wide, @ 0-20° tca. Matrix is patchy, irregularly sericitized tuff (?) with anastomosing alteration fronts and irregular quartz ± albite blebs and veinlets. Non-mineralized.	7568	37.50	38.00	0.50		1-2	25			0.02	
			7569	38.00	39.00	1.00		1-2	25			0.01	
			7570	39.00	40.00	1.00		1-2	25			0.01	
			7571	40.00	41.00	1.00		1-2	25			0.01	
			7572	41.00	42.00	1.00		1-2	25			0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser			ASSAYS Au, g/t	Au,Check
			7573	42.00	43.00	1.00			1-2	25			NIL	
			7574	43.00	44.00	1.00			1-2	25			NIL	
			7575	44.00	45.00	1.00			Tr.	5			NIL	
			7576	45.00	45.70	0.70							0.01	
45.70	52.55	**ASH/LAPILLI TUFF** Dark grey-green to purple, massive, fine-grained, hematitic ash tuff (trachyte), very homogeneous.												
		45.70 - 46.50 Lapilli tuff comprised of 10% red, trachytic clasts up to 5 mm (subrounded) floating in an aphanitic ash matrix. Grades to ash tuff.	7577	45.70	46.50	0.80							0.02	
			7578	46.50	47.00	0.50							0.01	
			7579	47.00	48.00	1.00							NIL	
			7580	48.00	49.00	1.00							0.01	
			7581	49.00	49.70	0.70							0.01	
		49.70 - 50.70 Bleached, weakly silicified fractured and brecciated zone. Displays patchy, diffuse bleaching (buff-brown sericitization) of matrix giving mottled texture and fragmentation or brecciation of host rock by small chloritic sutures and veinlets. Contact very sharp and irregular.	7582	49.70	50.70	1.00				20	Chl	Sil	0.01	
		50.90 - 51.40 Quartz + sericite + chlorite breccia zone with sharp chloritic fault contacts @ 43° tca. Comprised of 50% white to buff quartz veining and flooding with bleached, sericitized wall rock inclusions. Strong chloritic micro-fracturing. Non-mineralized.	7583	50.70	51.40	0.70			40	15			0.02	
			7584	51.40	52.00	0.60							0.03	
			7585	52.00	52.55	0.55							0.02	
52.55	54.00	**ASH TUFF** Very distinctive, light brown "speckled" unit comprised of 5% very fine, black chloritic spots and laths (up to 1 mm) displaying a subparallel alignment (trachytic) @ 35° tca floating in a light brown, non-magnetic, aphanitic ash matrix. Very sharp, abrupt contact @ 45° tca. Unit contains 2% narrow chlorite veinlets and narrow chloritic breccia veinlets (≤ 2 mm) throughout.	7586	52.55	53.00	0.45							NIL	
			7587	53.00	54.00	1.00							0.01	
54.00	73.80	**CONGLOMERATE** Quite fine grained with pebbles averaging 0.5-1 cm in size and comprised of angular to subrounded polymicitc, lithic fragments in a fine grained graywacke matrix. Entire unit is moderately to strongly deformed (foliated) with pervasive wispy sericite cleavage developed @ 25-30° tca and strong clast elongation. 1% late barren quartz ± albite veinlets cross-cutting foliation.	7588	54.00	55.00	1.00				20			NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		55.00 - 55.25 Two barren quartz + albite veins up to 6 cm wide. Unit is also in part, intercalated with fine ash and graywacke horizons with spotty sericite alteration and non-distinguishable contacts up to 1.5 m wide. Frequently displays alternating hematite/sericite alteration.	7589	55.00	55.50	0.50			10-15	20		0.01	
			7590	55.50	56.50	1.00						0.01	
73.80	75.60	**ASH TUFF** Well bedded ash tuff. Light grey-green, very fine grained, sericitic tuff with very fine lamellae @ 45° tca. Pervasive sericite alteration (very soft).											
75.60	83.60	**CONGLOMERATE** Quite fine grained with pebbles averaging 0.5-1 cm in size and comprised of angular to subrounded polymicitc, lithic fragments in a fine grained graywacke matrix. Entire unit is moderately to strongly deformed (foliated) with pervasive wispy sericite cleavage developed @ 25-30° tca and strong clast elongation. 1% late barren quartz ± albite veinlets cross-cutting foliation.											
		77.90 Fault @ 42° tca., 1-2 mm chloritic mud gouge.											
		78.90 - 79.20 Fault @ 30° tca., Strong tight chloritic mud breaks within highly deformed chloritic shear. Dry, barren with minor late calcite veining.											
83.60	106.00	**ASH TUFF** Chlorite + Hematite. Massive to well bedded @ 50° tca, very fine grained, dark green to grey-brown to mauve where hematitic. Patchy, strong magnetics. Intercalated with lapilli tuff horizons up to 1 m with gradational contacts. Lower contact of ash tuff unit is sharp @ 50° tca.											
			7591	92.00	92.90	0.90						0.01	
		93.00 - 93.10 Fault @ 70° tca. Sharp chlorite + sericite slip with 2% late quartz ± albite veining and bleached, sericitic alteration halo for 10 cm around slip.	7592	92.90	93.40	0.50			Tr.	10		0.02	
			7593	93.40	93.90	0.50						NIL	
		94.00 Chalcopyrite + quartz vein @ 20° tca., 3-5 mm wide, chalcopyrite + pyrite + quartz/calcite veinlet displaying good zonation from wall to core consisting of quartz + calcite→ quartz ± pyrite→ chalcopyrite.	7594	93.90	94.30	0.40		Tr.	1		Cpy vein	0.04	
		96.50 - 102.30 Extremely well bedded, dark green to mauve, hematitic ash tuff with minor, tight chloritic faults. Bedded @ 40° tca.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		96.70 Fault @ 50° tca. Sericite + chlorite. Sharp, tight chlorite slip, with a 0.5 cm wide, quartz + calcite veinlet and 3 cm width of foliated and sericitized tuff proximal to slip.										
		98.80 Fault @ 50° tca. Sericite + chlorite. Sharp, strong chloritic slip with minor quartz veining and 5-8 cm of sericitic bleaching and shearing symmetrically around fault slip.	7595	103.00	104.00	1.00					0.02	
			7596	104.00	104.50	0.50					0.01	
			7597	104.50	105.20	0.70			Tr.	5	0.01	
		105.50 Fault @ 55° tca. Sericite + chlorite + quartz. Strong, tight sericitic slip with 1 cm quartz veinlets and irregular blebs. Moderate to strong sericite alteration of wallrock for up to 15 cm from fault slip. Barren, non-mineralized.	7598	105.20	106.00	0.80			Tr.	5-10	0.02	
106.00	144.00	**LAPILLI TUFF** Massive to moderately well foliated with prominent clast elongation @ 50° tca. Comprised of angular to subrounded, heterolithic (trachytes) lapilli clasts to 4 cm, avg. 1 cm, and varying from 5-20% of unit. Matrix is a fine grained lithic ash. Typically notable are two distinct clasts types: 1) Aphanitic light green to brown trachyte which is frequently sericitized. 2) Porphyritic (trachytoid) clasts which are dark brown to yellow-green with black euhedral phenocrysts. Matrix displays moderate spotty and wispy sericite alteration throughout. Sericitization and deformation of tuff increases gradually to fault @114.5m.										
			7599	106.00	107.00	1.00				5-10	0.01	
		107.50 - 111.00 Broken and rubbly due to strong, chloritic fracturing and tight fault slips subparallel tca.	7600	107.00	108.00	1.00					0.01	
			7601	108.00	109.00	1.00					NIL	
			7602	109.00	110.00	1.00					0.01	
			7603	110.00	111.00	1.00					NIL	
			7604	111.00	112.00	1.00					0.01	
			7605	112.00	113.00	1.00					0.01	
			7606	113.00	114.00	1.00					0.03	
		114.50 - 114.60 Fault @ 35° tca. Broken, rubbly with strong sericite slips and late quartz veins.	7607	114.00	115.00	1.00					0.03	
		114.60 - 116.40 Strongly hematitic with patchy, sericitic zones displaying diffuse alteration fronts giving a very mottled appearance.	7608	115.00	116.00	1.00					0.01	
			7609	116.00	116.50	0.50					0.01	
		119.20 - 119.70 Fault @ 10-15° tca. Tight, irregular chlorite + sericite slip with minor quartz veining.										
		128.50 - 128.60 Fault @ 50° tca. Sericite + quartz. Strongly foliated to schistose, sericitic shear with 4 cm white-buff qtz vein.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		128.60 - 144.00 Massive to weakly foliated, typically green-brown, 0-15% clasts and quite variable from weakly sericitic to chloritic and hematitic.Lower contact is gradational over 1 m.	7610	142.00	142.50	0.50					NIL	
			7611	142.50	143.30	0.80					0.03	
			7612	143.30	144.00	0.70			2	5	0.03	
144.00	150.00	**LAPILLI TUFF** Bleached, spotted, chlorite + sericite. Unit is comprised of 5% angular pink-brown trachytoid textured lapilli clasts in a "spotted" yellow-green chlorite + sericite matrix. Lapilli clasts often display altered corroded boundaries which fade into a highly altered matrix comprised of dark green chlorite spots within an aphanitic, sericitized groundmass which gives the unit a distinctive spotted appearance. Quite massive and only weakly deformed but pervasively altered.										
			7613	144.00	145.00	1.00					0.02	
		145.50 Fault @ 40° tca. Sericite + quartz. 4 cm wide sericite schist zone with barren quartz veins.	7614	145.00	146.00	1.00					0.01	
			7615	146.00	147.00	1.00					0.01	
			7616	147.00	148.00	1.00					NIL	
			7617	148.00	149.00	1.00					NIL	
			7618	149.00	150.00	1.00					0.02	
150.00	159.50	**LAPILLI TUFF** Chlorite + sericite altered. 5-7% angular lapilli clasts which are chloritized (dark green) and stretched @ 50° tca floating in a bleached, sericitized, buff-brown matrix with 3% spotty sericite throughout. Frequently clasts display corroded and diffuse boundaries. Unit is quite massive to moderately foliated, but highly altered, non-magnetic and contains 1% late barren quartz veinlets.	7619	150.00	151.00	1.00					NIL	
			7620	151.00	152.00	1.00					0.01	
			7621	152.00	153.00	1.00					0.01	
		153.40 - 153.60 Fault @ 30° tca. Sericite + quartz + calcite. Strong sericitic, mud gouge shear with late barren quartz ± calcite veinlets up to 4 mm wide.	7622	153.00	154.00	1.00					0.03	
			7623	154.00	154.50	0.50					0.02	
		154.50 - 155.20 Altered tuff with 5% quartz veining or stockworking as dark green quartz + chlorite veins and later buff-white quartz veins. Trace disseminated pyrite.	7624	154.50	155.20	0.70		Tr.	5		0.01	
			7625	155.20	156.00	0.80					0.02	
			7626	156.00	157.00	1.00		Tr.	Tr.	30	0.03	
			7627	157.00	158.00	1.00					NIL	
		158.10 Quartz + pyrite + chalcopyrite vein. 1-2 cm wide irregular white quartz vein @ 35° tca with 1-2% fine grained pyrite and trace chalcopyrite on sericitic seams within vein.	7628	158.00	158.50	0.50		0.5	2	30	0.33	
			7629	158.50	159.00	0.50					0.11	
			7630	159.00	159.50	0.50					0.72	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
159.50	160.15	**QUARTZ + PYRITE BRECCIA ZONE** Upper and lower contacts are sharp sericite slips with milk-white quartz ± albite veinlets @ 50° tca. Zone consists of fractured, brecciated, sericitized, tuff infilled by at least three generations of quartz which are light grey, bluish grey and later cross-cutting white veinlets. Numerous tight sericitic slips and sutures, which often carry fine grained pyrite, cut quartz and frequently displaces the later barren white veins. Pyrite (trace-1%) occurs as very fine grained disseminations on sericitic sutures and fractures and as fine grained disseminations within quartz.	7631	159.50	160.15	0.65		0.5-1	15	30	0.99	
160.15	163.70	**GRAYWACKE** Massive, fine grained, dark green graywacke with 5% sericite spotting. Unit is comprised of fine lithic clasts, up to 1 mm, predominantly quartz, lithics, feldspar and jasper in decreasing order and 0.5% angular mudstone clasts.										
		160.15 - 161.00 Moderately, pervasively sericitized which gradually fades out @ 161.0 m.	7632	160.15	161.00	0.85				10-15	0.04	
			7633	161.00	162.00	1.00					0.01	
			7634	162.00	162.80	0.80					0.02	
		162.90 - 163.20 Quartz + sericite ± pyrite zone. Sharp sericitic contacts @ 55° tca. Zone contains 5-10% buff-white to grey quartz veins, up to 1 cm wide, in a foliated, sericitized graywacke. Contains 0.5% finely disseminated pyrite.	7635	162.80	163.20	0.40		0.5	5-10	25-30	0.13	
			7636	163.20	163.70	0.50		Tr.	<1	20	0.89	
163.70	166.00	**MUDSTONE** Aphanitic, light to dark green mudstone displaying fine bedding and tight isoclinal folding @ 164.0 m. Lower contact is gradational to graywacke.	7637	163.70	164.50	0.80		Tr.	<1	20	1.64	
			7638	164.50	165.00	0.50		Tr.	1	25	0.20	
			7639	165.00	166.00	1.00		Tr.	3	20	1.17	
166.00	169.60	**GRAYWACKE/MUDSTONE** Massive, fine grained, dark green, chloritic graywacke with 10% intercalated mudstone beds and angular mudstone clasts up to 2 cm. Mudstone beds are generally very irregular, frequently contorted and disrupted. 2% barren white quartz veinlets throughout. Weak spotty sericitization.										
			7749	166.00	166.40	0.40			2	10	0.84	
		166.40 - 175.00 Low angle chlorite ± mudstone breaks running subparallel tca. and oscillating in and out of core. Very tight, strong chloritic breaks.	7750	166.40	167.30	0.90					0.32	
		166.40 - 166.90 Fault @ 10-15% tca. Chlorite + sericite. Strong, tight, chloritic mud slip up to 0.5 cm wide. Graywackes										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-29

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		proximal to slip are moderately sericitized and contain 3-5% barren white quartz ± albite veins, up to 2 cm, @ 60-70° tca.										
	167.40	2 cm wide, white buff, quartz ± albite vein @ 20° tca with strong sericitic slip contacts. Trace disseminated pyrite in wallrock adjacent to the vein.	7751	167.30	167.80	0.50		Tr.	10	25	0.30	
			7752	167.80	168.30	0.50			2-3		0.06	
	168.30 - 169.20	Fault @ 15° tca. Strong tight chloritic mud break, 0.5 - 1 cm wide, with 10% white quartz veinlets in wallrock parallel to slip face.	7753	168.30	169.20	0.90			5-10	25	0.46	
169.60	177.20	**GRAYWACKE/CONGLOMERATE/MUDSTONE** Intercalated graywackes, mudstones (35%) and conglomerates which are comprised of 70% dark green chloritized fragments (angular to subrounded and possibly tuffaceous) and 30% lithics (mudstone, jasper + quartz) in a fine grained graywacke matrix. Mudstone occurs as narrow interbeds, up to 30 cm, and as large rip-up clasts to 7 cm. 1-2% barren quartz veining throughout.	7754	169.20	170.00	0.80					0.10	
			7755	170.00	171.00	1.00					0.02	
			7756	171.00	172.00	1.00					0.01	
177.20	206.85	**GRAYWACKE** Massive, fine grained, grey-green, well sorted, very clean graywacke with 1% intercalated mudstone horizons, up to 0.5 m, and angular mudstone clasts, up to 3 cm, scattered throughout.	7640	179.00	180.00	1.00					0.02	
			7641	180.00	181.00	1.00					NIL	
			7642	181.00	181.60	0.60					0.02	
	181.60 - 181.90	Fault @ 45° tca. Chlorite + sericite + quartz. Strongly schistose, sericitized graywacke with 5-7% white irregular quartz veins, up to 1.5 cm wide, which are generally barren. 0.5% disseminated pyrite in sericitized wallrock.	7643	181.60	182.00	0.40		Tr.	5-7	25	0.04	
			7644	182.00	183.00	1.00					0.01	
	186.60 - 196.00	Fault @ 5° tca. Chlorite + sericite + gouge ± quartz. Strong tight chloritic, mud break, 1 cm wide, subparallel tca. Contains sporadic broken quartz veins and pods oscillating in and out of core.										
	206.85	**END OF HOLE** Casing pulled.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 3, 1991 - August 7, 1991	**EASTING**	8598.7
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10398.9
CLAIM No.	L 500057, L 477419	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	330.2
STARTED	Aug 1/91 ; Aug 13/91	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	Aug 6/91 ; Aug 14/91	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	387.45
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test "102" structure

COMMENTS Hole extended from 321.70 to 387.45.
"103" gold zone @ 107.00 - 118.30, 11.3 m.

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	6.50	**OVERBURDEN**
6.50	8.80	**FAULT @ 10° TCA** Sericite + chlorite + ankerite + quartz.
8.80	83.50	**CONGLOMERATE** Chloritic
83.50	90.70	**GRAYWACKE**
90.70	100.50	**CONGLOMERATE**
100.50	122.00	**CONGLOMERATE** Weakly sericitic 107.60 - 107.90 Silicified zone with 0.5% pyrite. 117.95 - 118.25 Sericite + quartz + 1% pyrite.
122.00	128.00	**CONGLOMERATE ± SYENITE (?)** Hematized.
128.00	147.00	**CONGLOMERATE** Chloritic
147.00	154.00	**LAPILLI TUFF**
154.00	196.00	**CONGLOMERATE**
196.00	210.50	**GRAYWACKE**
210.50	222.30	**CONGLOMERATE**
222.30	229.00	**GRAYWACKE/MUDSTONE**
229.00	237.00	**LAPILLI TUFF**
237.00	237.70	**FAULT ZONE - CHLORITE + SERICITE**
237.70	299.70	**LAPILLI TUFF**
299.70	304.00	**GRAYWACKE**
304.00	322.15	**GRAYWACKE/CONGLOMERATE** Bleached, sericitic.
322.15	347.00	**ASH TUFF** Bleached sericitic.
347.00	352.00	**ASH/LAPILLI TUFF** Hematitic
352.00	353.00	**CONGLOMERATE** Weakly sericitic.
353.00	359.90	**ASH TUFF** Hematitic
359.90	363.50	**CONGLOMERATE**
363.50	369.45	**ASH/LAPILLI TUFF** Hematitic
369.45	371.80	**FAULT-SHEAR ZONE** Sheared mudstones and conglomerates.
371.80	387.45	**LAPILLI TUFF** Hematitic
	387.45	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
42.00	43.00	1.00	0.44
107.00	118.30	11.30	1.80
Including			
107.50	112.00	4.50	2.88
107.50	109.00	1.50	4.88
107.50	108.00	0.50	11.01
110.50	112.00	1.50	3.71
112.00	118.30	6.30	1.15
117.90	118.30	0.40	15.12

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 3, 1991 - August 7, 1991	**EASTING**	8598.7
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10398.9
CLAIM No.	L 500057, L 477419	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	330.2
STARTED	Aug 1/91 ; Aug 13/91	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	Aug 6/91 ; Aug 14/91	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	387.45
		SURVEY INSTRUMENT		**UNITS**	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ

COMMENTS Hole extended from 321.70 to 387.45.
"103" gold zone @ 107.00 - 118.30, 11.3 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	161	56
7.9			56
29.0			56
93.0			55
124.0			54
154.0			53
185.0			52
215.0			50
246.0			49
290.0			48
337.0			46

Depth	Method	Azimuth	Dip
366.0			44

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	6.50	**OVERBURDEN** Sand + boulder till.										
6.50	8.80	**FAULT @ 10-15° TCA.** Sericite + chlorite + ankerite + quartz. Open, vuggy sericitic shear with strong ankeritic staining. Strong shear, 5-10 cm wide, comprised of strong sericitic slips with wispy chlorite and 10% white quartz veinlets and in places a strong talcose fault gouge is developed.	7645 7646 7647	6.50 7.00 7.90	7.00 7.90 8.90	0.50 0.90 1.00			5-10 5 5	40-50 40-50 40-50	0.05 0.05 0.05	
8.80	45.00	**CONGLOMERATE** Massive, undeformed, chloritic, polymictic pebble conglomerate comprised of well rounded polymictic clasts up to 10 cm. Varies from tightly packed, framework to matrix supported, to a poor conglomerate comprised predominantly of graywacke and 1-2% scattered pebbles. Pristine. Weak clast elongation @ 40° tca. Minor intercalated graywacke horizons up to 50-75 cm wide. 23.20 Fault @ 35° tca. Sericite + chlorite + quartz. Strong, 1 cm wide, sericite + chlorite slip with fragmented white quartz veinlets. 33.50 - 34.00 Fault @ 5-10° tca. Sericite + ankerite ± quartz. Tight sericitic slip with moderate to strong ankeritic staining and moderate gouge development. 43.30 - 47.10 Fault @ 5-10° tca. Tight (1-3 mm) sericitic slip which oscillates in and out of core and contains irregular white quartz veinlets, up to 0.5 cm wide, adjacent to slip. In places quite open and vuggy with drusy quartz ± calcite development.	7648 7649 7650	42.00 43.00 44.00	43.00 44.00 45.00	1.00 1.00 1.00					0.24 0.05 0.02	
45.00	50.20	**GRAYWACKE** Massive, fine grained, grey-green with weak spotty sericite. Upper and lower contacts are faulted by irregular sericite + chlorite ± quartz shears @ 40° tca.	7651 7652 7653 7654 7655 7656	45.00 46.00 47.00 48.00 49.00 50.00	46.00 47.00 48.00 49.00 50.00 50.70	1.00 1.00 1.00 1.00 1.00 0.70					NIL 0.01 0.01 0.01 0.03 0.04	
50.20	83.50	**CONGLOMERATE** Massive, undeformed, chloritic, polymictic pebble conglomerate comprised of well rounded polymictic clasts up to 10 cm. Varies from tightly packed, framework to matrix supported, to a poor conglomerate comprised										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		predominantly of graywacke and 1-2% scattered pebbles. Pristine. Weak clast elongation @ 40° tca. Minor intercalated graywacke horizons up to 50-75 cm wide.											
83.50	90.70	**GRAYWACKE** Massive, fine grained, grey-green, well sorted, very clean, non-deformed graywacke. Upper contact sharp @ 35° tca. Lower contact gradational over 1 m. Contains 0.5% narrow quartz veinlets (≤ 0.5 cm) with sericitic alteration halos 1-3 mm wide. 0.5% angular mudstone clasts scattered throughout.											
90.70	100.50	**CONGLOMERATE** Massive, undeformed, chloritic, polymictic pebble conglomerate. Jasperoidal matrix supported, poorly sorted. Classic Timiskaming conglomerate.											
100.50	122.00	**CONGLOMERATE** Gradual bleaching of matrix evident due to pervasive, weak sericitization. Unit is massive, non-deformed polymictic conglomerate. Mafic clasts show evidence of border corrosion caused by sericitization of matrix, while harder clasts (jasper, quartz, porphyry's) retain sharp boundaries. Lower contact is sharp sericite + quartz fault @ 50° tca.	7657	104.00	105.00	1.00						NIL	
			7658	105.00	106.00	1.00						0.01	
			7659	106.00	107.00	1.00						NIL	
		107.10 0.5 cm wide quartz + pyrite veinlets @ 60° tca. White quartz ± albite veinlet with sharp chloritic walls and 0.5% disseminated pyrite on vein margin.	7660	107.00	107.50	0.50		Tr.	Tr.	5-10		0.23	
		107.60 - 107.90 Silicified zone with 0.5% disseminated pyrite centred on a sharp, tight, sericitic slip (crack) @ 50° tca. No prominent structure evident.	7661	107.50	108.00	0.50		0.5		5-10	Sil	10.63	11.38
			7662	108.00	109.00	1.00						1.82	
			7663	109.00	110.00	1.00						0.04	
			7664	110.00	110.50	0.50						0.03	
		110.50 - 112.00 Trace to 0.5% dissemination pyrite in weakly sericitic conglomerate, < 0.5%, 1-2 mm wide, chlorite and chlorite quartz filled fractures.	7665	110.50	111.00	0.50		Tr.				3.50	
			7666	111.00	112.00	1.00						3.81	
			7667	112.00	113.00	1.00						0.58	
			7668	113.00	114.00	1.00						0.07	
			7669	114.00	115.00	1.00						0.24	
			7670	115.00	116.00	1.00						NIL	
			7671	116.00	117.00	1.00						0.12	
			7672	117.00	117.90	0.90						0.22	
		117.95 - 118.25 Sericite + pyrite + quartz zone. Foliated to schistose, sericitized conglomerate with sharp contacts @ 70° tca.	7673	117.90	118.30	0.40		1	1	25	Sil	16.39	13.85
			7674	118.30	119.00	0.70						0.04	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		Crushed and broken clasts within a silicified matrix carrying 1% finely disseminated pyrite and minor late quartz + chlorite veinlets.	7675	119.00	120.00	1.00					0.04	
			7676	120.00	121.00	1.00					NIL	
			7677	121.00	122.00	1.00					0.01	
122.00	128.00	**CONGLOMERATE (SYENITE?)** Massive, reddish-brown to mauve, hematized unit with pervasive hematization of matrix and containing 1-3% sub-angular to rounded clasts. In places appears to be partially syenitized, weakly porphyritic with fragments or xenoliths of conglomerate trapped within a fine grained to weakly porphyritic syenitic matrix. Very diffuse contacts.	7678	122.00	123.00	1.00					0.02	
			7679	123.00	124.00	1.00					NIL	
			7680	124.00	125.00	1.00					0.01	
			7681	125.00	126.00	1.00					0.01	
			7682	126.00	127.00	1.00					0.01	
			7683	127.00	128.00	1.00					0.01	
128.00	147.00	**CONGLOMERATE** Massive, undeformed, chloritic, polymicitc pebble conglomerate. In part intercalated with minor lapilli tuff horizons up to 1 m wide. Lower contact is somewhat gradational.										
147.00	154.00	**LAPILLI TUFF** Light grey-green, massive, undeformed, unaltered tuff comprised of 5-7% angular buff-grey trachytic clasts, up to 2 cm, avg. 1 cm, in a very fine grained ash/graywacke matrix.										
154.00	196.00	**CONGLOMERATE** Massive, undeformed, chloritic pristine polymictic pebble conglomerate (jasperoidal). Varies from framework to matrix supported and contains minor intercalated graywacke horizons up to 0.5 m wide. Poorly sorted with well rounded to sub-angular clasts ranging form a few millimetres to 20 cm's in a dark grey-green, chloritic, graywacke matrix. Lower contact gradational over 0.5 m.										
		182.00 - 183.00 Fault @ 5° tca. Tight sericitic fracture, 1-2 mm wide, with a 0.5 cm wide quartz vein on slip margin. Moderate fuchsite alteration of mafic clasts evident proximal to sericite slip.										
		182.50 - 185.10 Moderately sericitic, foliated conglomerate (yellow-green) with fuchsitic altered mafic pebbles and a weak penetrative fabric @ 10° tca. Probably proximal to low-angle cross fault.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL		DESCRIPTION	SAMPLE						ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py %QV %Ser	Au, g/t	Au,Check
196.00	210.50	**GRAYWACKE** Massive, grey-green, unaltered, undeformed, fine grained graywacke with up to 1% scattered pebble clasts up to 2 cm. Comprised of fine lithic polymictic fragments up to 2 mm in size. 196.10 - 197.20 Fault @ 5-10° tca. Tight, 1-2 mm, sericite slip which oscillates through core. Patchy quartz veining adjacent to slip up to 2 cm wide.								
210.50	222.30	**CONGLOMERATE** Massive to weakly foliated @ 55° tca. Unaltered polymictic pebble conglomerate. Framework to matrix supported, poorly sorted. 222.10 - 222.30 Fault @ 70° tca. Sericite + chlorite. Moderately to strongly sericitic shear with 3% barren white quartz veinlets and pods. Moderate wispy and spotty sericite alteration of graywacke matrix proximal to shear marks lower contact of conglomerates.	7684 7685 7686 7687 7688 7689 7690	216.00 217.00 218.00 219.00 220.00 221.00 222.00	217.00 218.00 219.00 220.00 221.00 222.00 223.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00			0.02 0.01 0.02 0.03 0.02 0.03 0.02	
222.30	229.00	**GRAYWACKE/MUDSTONE** Moderately sericitized graywacke with wispy to spotty sericite alteration and tight sericite slips throughout @ 70° tca. Intercalated aphanitic mudstone beds, range from a few millimetres to 15 cm wide, @ 40° tca. 227.0 Minor patchy pyrite (primary) within the graywacke.	7691 7692 7693 7694 7695 7696	223.00 224.00 225.00 226.00 227.00 228.00	224.00 225.00 226.00 227.00 228.00 229.00	1.00 1.00 1.00 1.00 1.00 1.00			0.01 0.02 0.22 0.01 0.01 NIL	
229.00	237.00	**LAPILLI TUFF** Chlorite ± hematite. Massive to weakly foliated, dark green-brown to purple. Comprised of 2-7%, angular, buff-brown to green, trachytic clasts, ranging from 2 mm to 5 cm, floating in a fine grained ash matrix. Upper contact is obscure but appears to be gradational over 1-2 m with a few exotic pebbles (i.e. quartz) scattered through the predominantly tuffaceous rock. Unit displays patchy moderate magnetics. 233.20 Fault @ 30° tca. Sericite + chlorite + quartz. Moderately strong shear, 6 cm wide, comprised of tight sericite + chlorite slips and 10% barren, white quartz.	7697 7698 7699 7700 7701 7702 7703	229.00 230.00 231.00 232.00 232.70 233.40 234.00	230.00 231.00 232.00 232.70 233.40 234.00 235.00	1.00 1.00 1.00 0.70 0.70 0.60 1.00		Tr. 30	NIL NIL 0.01 NIL NIL NIL NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		235.00 - 236.50 Rubbly zone due to tight fracture subparallel tca. Moderate gouge development on chloritic slips.	7704	235.00	235.50	0.50	70				0.01	
			7705	235.50	236.50	1.00	70				0.01	
			7706	236.50	237.00	0.50					0.01	
237.00	237.70	**FAULT ZONE @ 70°TCA.** Chlorite + sericite. Strongly foliated to schistose zone with strong chloritic mud breaks and 5% fractured and boudinaged quartz pods. Barren, non-mineralized.	7707	237.00	237.70	0.70	95		5		0.01	
237.70	299.70	**LAPILLI TUFF** Chlorite + hematite. Massive to moderately well foliated with clast elongation @ 30° tca. Dark green to purple (patchy hematization). Comprised of 10-15% sub-angular, heterolithic trachytic clasts up to 4 cm (avg. 1 cm), in a very fine grained ash matrix. Quite homogeneous. Predominant clast types (50-60%) are a very fine grained, light grey to brown, trachyte and reddish-pink trachyte. Patchy moderate magnetics. In places unit appears to be a conglomerate due to the heterolithic nature of clasts, however no quartz or jasper evident as clasts or in matrix. Lower contact sharp @ 55° tca.	7708	237.70	238.50	0.80					0.02	
			7709	238.50	239.00	0.50					0.01	
			7710	239.00	240.00	1.00					0.01	
			7711	240.00	241.00	1.00					0.01	
			7712	241.00	242.00	1.00					NIL	
			7713	242.00	243.00	1.00					NIL	
			7714	243.00	244.00	1.00					0.01	
			7715	244.00	245.00	1.00					0.01	
			7716	245.00	246.00	1.00					0.01	
			7717	246.00	247.00	1.00					0.05	
			7718	247.00	248.00	1.00					NIL	
		261.00 - 291.00 Numerous, barren, white quartz ± albite veinlets @ 0-15° tca up to 2-3 cm wide.	7740	279.00	280.00	1.00					0.01	
			7741	280.00	281.00	1.00					0.01	
			7742	281.00	282.00	1.00					0.02	
			7743	282.00	282.90	0.90					0.01	
		282.95 - 283.05 Fault @ 50° tca. Sericite + quartz. Sharp, 0.5 cm wide, sericitic shear zone with 10 cm wide quartz and brecciated, milk-white quartz vein cut by narrow chlorite + sericite fractures @ 20° tca. No visible sulphides.	7744	282.90	283.30	0.40					0.02	
			7745	283.30	284.00	0.70			5	10-15	0.01	
		284.10 - 284.90 Shear zone @ 45° tca. Sericite + quartz + pyrite. Moderate strongly shear comprised of well foliated tuff with strong sericite slips, up to 2-3 cm wide and containing 5-7% quartz veins. Two generations of veining are evident; blue-grey narrow, irregular quartz veinlets up to 0.5 cm wide which are cut by late, milk-white quartz veins up to 2-3 cm wide. Trace disseminated pyrite @ 284.4 m.	7746	284.00	285.00	1.00					0.01	
			7747	285.00	286.00	1.00		Tr.	5-10	15-20	NIL	
			7748	286.00	287.00	1.00					0.02	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py %QV %Ser		Au, g/t	Au,Check
299.70	304.00	**GRAYWACKE** Massive, fine grained, grey-green, chloritic graywacke with 0.5% angular mudstone chips scattered throughout. Weak spotty pervasive sericite alteration. 1% late, barren quartz ± albite veinlets. Well sorted, very clean.	7719	301.00	302.00	1.00		Tr.		0.01	
			7720	302.00	303.00	1.00				NIL	
			7721	303.00	304.00	1.00				NIL	
304.00	322.15	**GRAYWACKE/CONGLOMERATE (?)** Massive, undeformed, pervasively altered, sericitized graywacke and conglomerate. Comprised of 5% scattered polymictic pebbles (mafic volcanics, jasper etc.) in a very fine grained, bleached, buff to brown matrix which is pervasively altered. Mafic clasts are typically fuchsite altered with diffuse boundaries, while more competent clasts (quartz, porphyry, jasper, etc.) are unaltered. Matrix may in fact be tuffaceous ash but is too highly altered to discern.	7722	304.00	305.00	1.00			40	NIL	
			7723	305.00	306.00	1.00				0.01	
			7724	306.00	307.00	1.00				NIL	
			7725	307.00	308.00	1.00				0.01	
			7726	308.00	309.00	1.00				0.01	
			7727	309.00	310.00	1.00				NIL	
			7728	310.00	311.00	1.00				0.01	
			7729	311.00	312.00	1.00				0.01	
			7730	312.00	313.00	1.00				0.02	
			7731	313.00	314.00	1.00				NIL	
			7732	314.00	315.00	1.00				NIL	
			7733	315.00	316.00	1.00				NIL	
			7734	316.00	317.00	1.00				0.03	
			7735	317.00	318.00	1.00				0.01	
			7736	318.00	319.00	1.00				0.01	
			7737	319.00	320.00	1.00				0.01	
			7738	320.00	321.00	1.00				0.02	
			7739	321.00	321.70	0.70				NIL	
			8015	321.70	322.15	0.45				0.01	
322.15	347.00	**ASH TUFF** Massive to finely bedded @ 40° tca. Greyish green to buff to reddish brown, due to variation in alteration intensity. Bedding evident as very fine laminations visible due to variation in colour and alteration type, i.e. whether sericitic or hematitic. 322.15 - 325.60 Yellow-green sericite and chloritic clots, with very irregular diffuse boundaries, which may represent remnant lapilli clasts are scattered throughout the unit. Matrix is very fine grained to aphanitic, pervasively moderately sericitized ash, which is bleached out. 322.15 - 322.85 Series of 4 narrow (1-3 mm) quartz + chlorite veinlets sub-parallel tca which carry 0.5% disseminated to clotty pyrite. White quartz with black chloritic walls.	8016	322.15	322.90	0.75				0.02	
			8017	322.90	323.50	0.60		Tr.	0.05 Chl.	0.01	
			8018	323.50	324.00	0.50				0.02	
			8019	324.00	325.00	1.00				0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			8020	325.00	325.50	0.50						0.02	
		325.60 - 325.65 Fault @ 50° tca. Chlorite + sericite + quartz. 4 cm wide white to greyish green chloritic, quartz veining centred on a sharp tight sericitic slip. Blue-green quartz vein, 2 cm wide, on up-hole side of slip is fractured and brecciated and carries trace fine grained pyrite.	8021	325.50	325.75	0.25		Tr.	5			0.03	
			8022	325.75	326.50	0.75						0.02	
			8023	326.50	327.00	0.50						NIL	
			8024	327.00	327.70	0.70						NIL	
		327.70 - 330.50 Unit takes on a mottled reddish pink colouration with irregular, diffuse, patchy zones of yellow-green sericitization which is associated with narrow healed fractures and narrow quartz veinlets.	8025	327.70	328.20	0.50		Tr.	Tr.			0.02	
			8026	328.20	329.00	0.80						NIL	
			8027	329.00	330.00	1.00						NIL	
			8028	330.00	330.50	0.50			Tr.			0.01	
		330.50 - 344.00 Massive to bedded, undeformed ash tuff, finely bedded @ 40° tca. Beds, ≤ 1 mm, appear to be hematized magnetite layers.	8029	330.50	331.00	0.50						0.02	
			8030	331.00	332.00	1.00						NIL	
			8031	332.00	333.00	1.00						0.03	
			8032	333.00	334.00	1.00						NIL	
			8033	334.00	335.00	1.00						0.01	
			8034	335.00	336.00	1.00						0.01	
			8035	336.00	337.00	1.00						NIL	
			8036	337.00	338.00	1.00						NIL	
			8037	338.00	339.00	1.00						0.02	
			8038	339.00	340.00	1.00						0.01	
			8039	340.00	341.00	1.00						NIL	
			8040	341.00	342.00	1.00						0.01	
			8041	342.00	342.30	0.30						NIL	
		342.30 - 342.45 Fault @ 65° tca. 10 cm wide zone comprised of 10% irregular white to buff quartz veinlets with trace pyrite in a sheared, sericitic host.	8042	342.30	342.55	0.25		Tr.	5-10	30		0.02	
			8043	342.55	343.30	0.75						NIL	
			8044	343.30	343.80	0.50			10-15		Spec.	0.04	
		344.00 - 347.00 Strong, pervasive sericitization gradually gives way to less altered, hematitic tuffs.	8045	343.80	344.50	0.70						NIL	
			8046	344.50	345.00	0.50						0.03	
			8047	345.00	346.00	1.00						0.01	
			8048	346.00	346.40	0.40						0.01	
		346.40 - 346.60 Narrow quartz + chlorite + specularite veinlets (1-2 mm) stockworking in a massive, fine grained, weakly hematitic ash.	8049	346.40	346.80	0.40			5		Spec.	0.03	
			8050	346.80	347.50	0.70						0.01	
347.00	352.00	**ASH/LAPILLI TUFF**											
		Massive to well bedded, grey-green to purple, fine grained hematitic ash with intercalated lapilli tuff horizons up to 65 cm wide. Well developed bedding @ 50° tca. Lapilli horizons display gradational contacts with the ash tuff and is comprised of 5-7% subrounded to elliptical, heterolithic trachytic clasts, 3 mm -3 cm, dark green, red and purple, fine grained to	8051	347.50	348.00	0.50						0.01	
			8052	348.00	349.00	1.00						0.05	
			8053	349.00	349.50	0.50		Tr.	Tr.		Spec.	0.02	
			8054	349.50	350.00	0.50		Tr.	Tr.	5-10		0.01	
			8055	350.00	350.50	0.50						0.04	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		porphyritic. Patchy strong magnetics. Very minor irregular quartz + specularite ± pyrite veinlets up to 1 cm wide.	8056	350.50	351.00	0.50					0.05	
			8057	351.00	351.50	0.50					0.04	
			8058	351.50	352.00	0.50					0.03	
352.00	353.00	**CONGLOMERATE** 15% well rounded, polymictic pebbles in a light grey-green, fine grained, trachyte ash matrix. Contacts are gradational with surrounding ash tuff and marked by a gradual increase in the pebble content. Virtually undeformed and weakly sericitic.	8059	352.00	353.00	1.00					0.03	
353.00	359.90	**ASH TUFF** Massive to well bedded @ 30° tca. Hematitic green-brown, to purple, fine grained heterolithic trachyte ash with clasts up to 2 mm. Bedding occurs as fine laminations and grain size sorting 1-3 mm wide. Unit is also intercalated with minor lapilli tuff horizons and contains the odd lapilli clast scattered throughout the predominantly ash component.	8060	353.00	354.00	1.00					0.04	
			8061	354.00	355.00	1.00					0.01	
			8062	355.00	356.00	1.00					0.02	
			8063	356.00	357.00	1.00					0.03	
			8064	357.00	357.70	0.70					NIL	
		357.75 - 359.90 Unit is cut by 5% barren, massive, white to buff, quartz ± albite veins which display penetrative alteration halos for up to 15 cm into wallrock. These sericitic halos are light green and give the core a mottled appearance.	8065	357.70	358.20	0.50		2		5	0.03	
			8066	358.20	358.95	0.75		2			0.01	
		359.00 - 359.40 Semi-massive, quartz + albite vein. Very irregular.	8067	358.95	359.50	0.55		70			NIL	
			8068	359.50	360.00	0.50					0.03	
359.90	363.50	**CONGLOMERATE** Massive, weakly foliated, polymictic pebble conglomerate. Light grey-green, weakly sericitic. 15-25% well rounded polymictic pebbles, to 4 cm, in a fine grained graywacke matrix. Poorly sorted and matrix supported.										
363.50	369.45	**ASH/LAPILLI TUFF** Intercalated well bedded ash tuffs and massive heterolithic lapilli tuff with pervasive hematization. Bedding ranging from a few millimetres to 65 cm wide. Thin bedding laminations @ 45° tca are frequently magnetite-bearing. Patchy strong magnetics. Lower contact of unit is a strong sharp chloritic break, 3 mm wide @ 40° tca.										
		367.50 - 367.85 Shear zone @ 50° tca. Sericite + chlorite + quartz. 3 cm wide, barren, white buff quartz + albite vein in foliated sericitized tuff.	8069	367.50	367.90	0.40		7		15	0.01	
			8070	367.90	368.70	0.80					NIL	
			8071	368.70	369.45	0.75					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-30

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
369.45	371.80	**FAULT ZONE** Strongly deformed, crushed chloritic mudstone and conglomerate containing 5% strong tight, 1-5 mm wide, chloritic mud breaks @ 40-45° tca. In places, these blue-grey mud gouges, which may contain smeared molybdenite, display strong slickenside development. Interstitial to these slips, the sediments are strongly deformed and crushed and contain patchy zones with 5% fractured, dislocated, white quartz and trace disseminated pyrite. Lower contact is a very strong, 0.5-1 cm wide chloritic mud fault gouge.	8072	369.45	370.00	0.55			1	Chl.	NIL	
			8073	370.00	370.50	0.50		Tr.	1		0.01	
			8074	370.50	371.20	0.70					0.01	
			8075	371.20	371.80	0.60		Tr.	Tr.	Chl.	NIL	
371.80	387.45	**LAPILLI TUFF** Massive, undeformed, dark purple, hematitic lapilli tuff with weak patchy magnetics. Comprised of 3-15% (variable) sub-angular, heterolithic, lapilli clasts, averaging 0.5 cm in size, in fine to very fine grained trachyte ash matrix.										
		371.80 - 376.60 Moderately well foliated proximal to the above fault zone. Wispy sericite development in hematitic lapilli tuff.	8076	371.80	372.80	1.00					0.03	
	387.45	**END OF HOLE** Casing left in hole.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 7, 1991 - August 13, 1991	**EASTING**	8190.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10366.4
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	331.8
STARTED	August 6, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 13, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	409.75
				UNITS	metres
				CORE SIZE	NQ

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

PURPOSE To test "102" structure

COMMENTS "103" gold zone @ 258.40 - 261.50, 3.10 m.
"102" gold zone @ 359.10 - 369.25, 10.15 m.

SIGNED BY (W. Benham)

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	3.65	**OVERBURDEN**
3.65	41.00	**LAPILLI TUFF** Chloritic
41.00	69.10	**LAPILLI TUFF**
69.10	79.40	**LAPILLI TUFF** Sericitic + hematitic
79.40	86.30	**LAPILLI/ASH TUFF**
86.30	113.00	**LAPILLI TUFF** Leucitic
113.00	127.60	**GRAYWACKE/MUDSTONE/CONGLOMERATE**
127.60	230.00	**GRAYWACKE**
230.00	246.20	**CONGLOMERATE**
246.20	247.30	**DIABASE DYKE**
247.30	256.90	**CONGLOMERATE** Chloritic
256.90	270.10	**GRAYWACKE** 260.60 - 260.90 Quartz + pyrite + sericite vein.
270.10	273.20	**LAPILLI TUFF**
273.20	277.20	**ASH TUFF**
277.20	282.40	**GRAYWACKE/MUDSTONE/LAPILLI/ASH TUFF**
282.40	284.10	**MUDSTONE/SILTSTONE**
284.10	306.80	**ASH TUFF** Chloritic + hematitic.
306.80	307.70	**MUDSTONE**
307.70	333.80	**GRAYWACKE** Sericitic
		316.05 - 316.40 Quartz + chlorite + pyrite vein.
		317.20 - 317.65 Quartz and quartz + chlorite ± pyrite
333.80	339.50	**TRACHYTIC FLOW**
339.50	362.00	**GRAYWACKE** Sericitic + chloritic + pyritic
		348.60 - 349.20 Quartz and quartz + chlorite + pyrite veins.
		359.15 - 359.20 Quartz + chlorite + pyrite zone with VISIBLE GOLD.
362.00	368.40	**CONGLOMERATE** Sericitic
		362.00 - 362.20 5-7% quartz + albite veins, 1-2% quartz flooding with 1% pyrite. 0.5% pyrite in matrix.
		363.40 - 364.25 Silicified, 50% quartz veins and quartz flooding, 0.5 -1% pyrite.
368.40	369.65	**SILTSTONE**
369.65	372.00	**GRAYWACKE**
372.00	373.20	**CONGLOMERATE**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
237.10	239.10	2.00	0.27
258.40	261.50	3.10	3.63
including			
260.50	260.90	0.40	27.12
334.50	335.00	0.50	0.43
347.40	348.00	0.60	0.16
358.60	359.10	0.50	0.14
359.10	364.25	5.15	9.70
including			
359.10	359.60	0.50	42.43
361.90	362.20	0.30	12.52
363.40	364.25	0.85	23.43
364.25	364.65	0.40	0.23
366.20	367.00	0.80	0.22

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 7, 1991 - August 13, 1991	**EASTING**	8190.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10366.4
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	331.8
STARTED	August 6, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 13, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	409.75
				UNITS	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ

COMMENTS "103" gold zone @ 258.40 - 261.50, 3.10 m.
"102" gold zone @ 359.10 - 369.25, 10.15 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION
373.20	375.15	**MUDSTONE** Sericitic and foliated.			
375.15	377.00	**GRAYWACKE** Sericitic and foliated. 376.45 - 377.00 Sheared, quartz + sericite + pyrite zone.			
377.00	379.30	**MUDSTONE**			
379.30	382.40	**GRAYWACKE**			
382.40	389.30	**CONGLOMERATE**			
389.30	395.60	**MUDSTONE**			
395.60	409.75	**GRAYWACKE** 398.60 - 399.40 Fault @ 40° tca, sericite + quartz + pyrite. 406.40 - 406.50 Fault @ 60° tca 406.75 - 406.80 Fault @ 65° tca			
	409.75	**E. O. H.**			

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
372.60	373.20	0.60	0.13
382.40	383.00	0.60	0.15
387.00	388.00	1.00	0.17

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 7, 1991 - August 13, 1991	**EASTING**	8190.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10366.4
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	331.8
STARTED	August 6, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 13, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	409.75
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test "102" structure

COMMENTS "103" gold zone @ 258.40 - 261.50, 3.10 m.
"102" gold zone @ 359.10 - 369.25, 10.15 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	161	65
8.0			65
30.5			64
61.0			63
91.0			62
122.0			61
152.0			60
183.0			60
215.0			59
244.0			58
275.0			57

Depth	Method	Azimuth	Dip
305.0			56
338.0			55
366.0			54
396.0			53

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	3.65	**OVERBURDEN**										
3.65	41.00	**LAPILLI TUFF** Massive, undeformed, chloritic, grey-green lapilli tuff. Comprised of 5-15% subangular clasts, up to 3-4 cm (avg. 0.5-1 cm), in a very fine grained, massive ash matrix. Predominant clast type (75%) is fine grained, light grey to buff, trachyte. Clasts are subangular and average 1 cm. Lesser quantities of various dark red to dark green, trachytic clasts, are scattered throughout. Moderately magnetic. Contains 1% narrow quartz veinlets, ≤1 cm wide, which frequently display buff-brown moderate alteration halos, up to 3 cm wide, adjacent to veins. Unit is in part intercalated with ash tuff horizons of equivalent composition, up to 2-3 metres wide, which are frequently well bedded @ 60° tca. Lower contact of unit is gradational over 2 metres. 10.00 - 10.70 Weakly altered, sericitic + hematitic zone due to numerous tight chloritic ± ankerite slips at 60°, 25° and 40° tca. 16.80 Fault @ 40° tca. Chlorite + sericite + ankerite + quartz. 1 cm wide, strong break with moderate gouge development and moderately strong ankerite staining. 18.60 - 24.00 Well bedded ash tuff @ 60° tca. Bedding ranges from 1-2 mm to 15-20 cm. 21.50 - 21.60 Fault @ 65° tca. Sericite + chlorite + quartz + calcite. Sharp, tight sericitic shears with a 7 cm wide, white to pink, quartz calcite vein bounded by slip planes. 25.50 - 25.80Fault @ 50°tca. Strong, tight chloritic shear @ 25.6 m with moderate ankeritic staining. 50.10 - 50.30 Fault @ 80° tca. Chlorite + sericite + quartz.										
41.00	69.10	**LAPILLI TUFF** Massive, undeformed, unaltered. Comprised of 10-20% angular to subrounded lapilli clasts, which are predominantly red trachyte fragments up to 7 cm (avg. 1-2 cm), and constitute 80% of clast types. Matrix is very dark green to black, very fine grained ash. Strongly magnetic. 69.10 Fault @ 85° tca. Chlorite + sericite + ankerite. Strong sharp chlorite + sericite slip with 5 cm of ankeritic stained, schistose tuff.	7757 7758 7759 7760 7761 7762	64.00 65.00 66.00 67.00 68.00 69.00	65.00 66.00 67.00 68.00 69.00 69.50	1.00 1.00 1.00 1.00 1.00 0.50				10	0.03 0.01 NIL 0.01 0.02 0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
69.10	79.40	**ALTERED LAPILLI TUFF** Sericite + hematite. Purplish-red to yellow-green with strong mottled appearance due to irregular, patchy hematite + sericite alteration. Unit contains 5-10%, angular to subrounded, heterolithic lapilli clasts up to 3 cm (avg. 1 cm). Some clasts are fractured and cut by secondary quartz veinlets, ≤ 0.5 cm wide, which frequently display irregular, buff-brown, alteration halos which coalesce in places giving rise to a patchy mottled appearance. Matrix is very fine grained with variable sericite + hematite alteration. Strongly magnetic. Lower contact is sharp and somewhat irregular @ 30° tca.	7763	69.50	70.00	0.50				0.04	
			7764	70.00	71.00	1.00					0.01	
			7765	71.00	72.00	1.00					0.02	
			7766	72.00	73.00	1.00					0.01	
		73.35 - 73.45 Fault @ 40° tca. Chlorite + sericite + quartz + calcite. Sharp sericite + chlorite slip boundaries with fractured and brecciated quartz + calcite veins in a sericitic host interstitial to slips.	7767	73.00	73.50	0.50					0.02	
			7768	73.50	74.00	0.50					0.01	
		74.10 Fault @ 55° tca. Sericite + quartz. Moderately foliated, sericitized zone with sharp sericitic slips and 2 cm wide irregular, white to buff, quartz flooding.	7769	74.00	75.00	1.00					0.02	
			7770	75.00	76.00	1.00					NIL	
			7771	76.00	76.50	0.50					0.02	
		76.70 - 76.90 Fault @ 50° tca. Chlorite + sericite + quartz + calcite. Somewhat rubbly, chlorite 1+ sericite shear with 10% white-pink quartz + calcite veining, which is fractured to weakly brecciated.	7772	76.50	77.30	0.80			5	10	NIL	
			7773	77.30	77.80	0.50					0.02	
		77.80 - 78.50 Fault zone @ 60° tca. Sericite + chlorite + quartz. Strongly foliated to schistose zone with patchy, fractured quartz veining. (2%).	7774	77.80	78.50	0.70			2	10-15	0.02	
			7775	78.50	79.40	0.90					NIL	
79.40	86.30	**LAPILLI/ASH TUFF** Massive, grey-green, fine grained ash tuff with intercalated lapilli tuff horizons up to 1.5 metres wide. Lapilli tuff comprised of 5-10%, angular to subrounded clasts, up to 3 cm (avg. 1 cm), which are typically buff-brown to grey, fine grained to finely porphyritic and display trachytoid textures. Patchy strong magnetics. Lower contact is sharp and marked by a 1 cm wide quartz vein and 1 cm wide sericitic schist.	7776	79.40	80.10	0.70					NIL	
			7777	80.10	81.00	0.90					NIL	
			7778	81.00	81.50	0.50					NIL	
		81.50 - 81.90 Fault @ 15° tca. Chlorite + sericite + quartz. Laminated to brecciated quartz vein 2 cm wide, with sharp chlorite + sericite slip boundaries with moderate calcitic mud development.	7779	81.50	82.00	0.50		10	20		0.01	
			7780	82.00	83.00	1.00					0.02	
			7781	83.00	84.00	1.00					0.02	
			7782	84.00	85.00	1.00					NIL	
			7783	85.00	85.50	0.50					0.01	
			7784	85.50	86.40	0.90					NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
86.30	113.00	**LEUCITIC LAPILLI TUFF** Very distinctive unit. Massive, undeformed, weakly chloritic but very fresh in appearance. Comprised of 5-10%, buff-brown to grey, angular lapilli clasts, up to 5 cm (avg. 1-2 cm), generally fine grained to weakly porphyritic. Matrix is light grey-green, very fine grained to aphanitic, weakly chloritic with 5% pseudo-hexagonal leucite crystals up to 0.5 cm in size. Leucites are light grey with somewhat vague, altered, grain boundaries giving the rock a distinctive spotted appearance. Patchy strong magnetics. Lower contact is gradational over 2 m. 96.85 - 96.90 3 cm wide, barren, white quartz vein with sharp, chloritic boundaries @ 40° tca. 110.80 - 111.00 Fault @ 20° tca. Sericite + quartz + chlorite. Strong sericite + gouge shear with 10% fractured and brecciated quartz and chlorite veins.	7785	86.40	87.00	0.60					NIL
			7786	87.00	88.00	1.00					0.02
113.00	127.60	**GRAYWACKE/MUDSTONE/CONGLOMERATE** Intercalated graywacke, mudstone, and poor conglomerates, (pebbly graywacke). Zone comprised of 75% massive, fine grained graywacke with narrow pebbly sections with 1-2% polymictic pebbles and intercalated, aphanitic mudstone horizons which frequently display irregular contacts and flame structures due to soft mud deposition. 115.40 - 115.65 Quartz + sericite zone comprised of 30% white-grey quartz within schistose sericitized sediments. Quartz vein, 2-3 mm wide, with 1% pyrite. 121.10 - 121.30 Fault @ 70° tca. Sericite + qtz. 10 cm wide, barren white quartz vein with strong, sharp sericite slip boundaries. 121.30 - 124.00 Well bedded, aphanitic mudstone, bedding @ 25-30° tca. 125.10 Strong chloritic mud break @ 60° tca. Down hole side of this fault bedding turns from 25° to 60-70° tca. 125.00 - 125.30 Brecciated mudstone, in-situ brecciation of mudstone by quartz + chlorite fracture fillings.	7787	113.00	114.00	1.00					0.02
			7788	114.00	115.00	1.00					0.01
			7789	115.00	115.40	0.40					NIL
			7790	115.40	115.70	0.30		Tr.	30	60	0.02
			7791	115.70	116.50	0.80					NIL
			7792	116.50	117.00	0.50					0.01
			7793	117.00	118.00	1.00					NIL
			7794	118.00	119.00	1.00					NIL
			7795	119.00	120.00	1.00					NIL
			7796	120.00	121.00	1.00					0.01
			7797	121.00	121.40	0.40			15	40	NIL
			7798	121.40	122.00	0.60					0.01
			7799	122.00	123.00	1.00					0.01
			7800	123.00	124.00	1.00					NIL
			7801	124.00	124.90	0.90					NIL
			7802	124.90	125.50	0.60			5-10		0.01
			7803	125.50	126.00	0.50					0.01

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HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
127.60	230.00	**GRAYWACKE** Massive, undeformed, unaltered, very uniform, fine grained, grey-green graywacke. Generally very clean, well sorted, but contains some poor conglomerate, (pebbly graywacke) sections which contain less than 5% scattered polymictic pebbles. Lower contact of unit is gradational to conglomerate.											
		131.10 Fault @ 70°tca. Chlorite + quartz. 1 cm wide fault gouge with a 3 cm wide, barren, quartz vein at upper contact of fault.											
		135.00 - 135.20 Fault @ 50° tca. Chlorite + quartz. 9 cm wide, white, barren quartz vein with internal sericitic fractures bounded by strong sharp chloritic mud gouge slips.											
		144.30 - 144.90 Fault @ 10° tca. Tight chloritic slip with 0.5 cm wide quartz + calcite veinlet sub-parallel tca.											
		154.00 - 172.00 Pebbly greywacke/conglomerate, predominantly massive, fine grained, graywacke with 3-5% scattered polymictic pebbles. Weak pervasive spotty sericite. Mafic clasts are frequently fuchsitic. Gradational contacts.	7804	158.00	159.00	1.00						0.02
			7805	159.00	160.00	1.00						0.01
			7806	160.00	161.00	1.00						0.02
			7807	161.00	162.00	1.00						0.01
			7808	162.00	162.80	0.80						0.03
			7809	162.80	163.30	0.50						0.04
		163.30 - 163.80 Shear zone @ 30° tca. Sericite + silica. Moderately silicified shear comprised of irregular wispy sericite (35%) and crushed, silicified graywacke matrix. No visible mineralization.	7810	163.30	163.90	0.60				35	Sil.	0.03
			7811	163.90	164.50	0.60						0.01
			7812	164.50	165.00	0.50						0.02
		165.20 Fault @ 20° tca. Sericite + quartz. 0.5 cm wide sericitic shear with a 3 mm wide, barren, white quartz + sericite veinlet.	7813	165.00	165.50	0.50						0.02
			7814	165.50	166.00	0.50						0.01
			7815	166.00	167.00	1.00						0.01
			7816	167.00	168.00	1.00						0.01
			7817	168.00	168.50	0.50		Tr.	5	10		0.01
		168.25 - 168.35 Fault @ 60° tca. Sericite + chlorite + quartz ± pyrite. Laminated schistose zone with 25% fractured and boundinaged, white quartz with interstitial wispy sericite + chlorite. Trace disseminated pyrite.	7818	168.50	169.50	1.00						0.02
			7819	169.50	170.00	0.50						0.03
			7820	170.00	171.00	1.00						0.01
			7821	171.00	172.00	1.00			1			0.02
			7822	172.00	173.00	1.00						0.03
			7823	173.00	173.60	0.60						0.01
		173.60 - 173.75 Fault @ 65° tca. Sericite + chlorite + quartz. 5 cm wide, quartz vein with interstitial sericite + chlorite sutures and schistose, sericitized wall rock.	7824	173.60	174.35	0.75			15	35		0.02

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INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
		174.10 - 174.35 Fault @ 75° tca. Sericite + chlorite + quartz.										
		174.25 Strong mud break, 1 cm wide, with fractured white quartz with chloritic sutures and schistose sericitized graywacke wallrock.										
		174.90 - 175.00 Fault @ 60° tca. Sericite + chlorite + quartz. 4 cm wide, white, fractured quartz vein with chloritic sutures in sericitized, foliated graywacke.	7825	174.35	175.00	0.65			5	20	0.02	
			7826	175.00	176.00	1.00					NIL	
		195.95 Fault @ 25° tca. Chlorite + quartz + calcite. 1 cm wide, chloritic breccia with 5% brecciated quartz. Strong calcitic mud on chlorite slips.										
		201.00 Weak bedding @ 45° tca.										
		214.00 - 221.00 Chlorite ± quartz breccia veinlets, 1-5 mm wide, @ 5-15° tca. These veins are comprised of dark green, chloritic matrix with either angular wallrock fragments and/or white quartz fragments.	7827	214.00	215.00	1.00			2		0.01	
		215.20 - 215.40 Fault @ 70° tca. Sericite + chlorite + quartz.	7828	215.00	215.50	0.50			5-7	25	0.02	
		215.20 Mud break, 1 cm wide, with fractured, barren, white quartz vein with chloritic sutures in sericitized, sheared graywacke.	7829	215.50	216.00	0.50			1		0.01	
			7830	216.00	217.00	1.00					0.04	
			7831	217.00	218.00	1.00					0.01	
			7832	218.00	219.00	1.00					0.01	
			7833	219.00	220.00	1.00					0.02	
			7834	220.00	220.80	0.80					0.01	
		221.00 - 221.20 Sericite + quartz + pyrite shear @ 25° tca. Moderately foliated, sericitized, silicified graywacke with 0.5% pyrite on, 1-3 mm wide, quartz veinlets.	7835	220.80	221.20	0.40		Tr.	5-10	10	0.01	
			7836	221.20	222.00	0.80					0.02	
			7837	222.00	223.00	1.00					0.01	
230.00	246.20	**CONGLOMERATE** Massive, non-bedded, unaltered, undeformed, polymictic pebble conglomerate. Poorly sorted, matrix supported and jasperoidal. Moderate pebble elongation @ 30° tca.										
		236.70 - 237.00 Fault @ 15° tca. Sericite + quartz.	7838	236.60	237.10	0.50			10	30	0.04	
		237.00 Strong, tight sericitic mud slip with 15% fractured, disrupted quartz veins and pods.	7839	237.10	238.00	0.90					0.43	
			7840	238.00	238.65	0.65					0.17	
		238.70 - 238.85 4 cm wide, white buff, quartz vein with sharp sericite slip walls @ 35° tca. Fractured and cut by irregular sericitic sutures.	7841	238.65	239.10	0.45			10	10	0.11	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
246.20	247.30	**DIABASE DYKE** Massive, dark green, fine grained diabase with sharp intrusive contacts @ 25° tca. Well developed aphanitic chill margins 2-3 cm wide. Non-magnetic.										
247.30	256.90	**CONGLOMERATE** Massive, pristine, polymictic pebble conglomerate with a dark green, chloritic graywacke matrix. Matrix supported.										
		255.00 - 256.90 Spotty, moderate sericite alteration.	7842	254.00	255.00	1.00				5	0.05	
			7843	255.00	256.00	1.00				10-15	0.08	
		256.90 Fault contact @ 40° tca. Chlorite + sericite + quartz. 1 cm wide, chlorite + sericite slip with barren white quartz marks contact with graywacke.	7844	256.00	256.90	0.90					0.02	
256.90	270.10	**GRAYWACKE** Massive, fine grained, grey-green graywacke with 2% scattered pebbles, (pebbly + graywacke) including angular mudstone clasts. Trace disseminated pyrite.										
		256.90 - 264.60 Unit displays, 5-7%, weak to moderate, spotty sericite development and sericitization and fuchsite alteration of mafic clasts. Moderate foliation developed @ 35° tca.	7845	256.90	257.40	0.50		Tr.		5	0.01	
		257.40 - 258.40 Yellow-green, sericitic, aphanitic mudstone with very fine, disrupted bedding @ 60° tca.	7846	257.40	258.40	1.00			Tr.	10-15	0.03	
			7847	258.40	259.00	0.60				5	0.15	
			7848	259.00	260.00	1.00				5	0.10	
			7849	260.00	260.50	0.50					0.16	
		260.60 - 260.90 Quartz + sericite + pyrite vein. Somewhat irregular, buff to grey, quartz vein with irregular anastomosing sericite + pyrite suturing. 0.5% very fine grained pyrite.	7850	260.50	260.90	0.40		0.5	25	15	24.58	29.66
			7851	260.90	261.50	0.60					0.25	
			7852	261.50	262.50	1.00					0.01	
		262.70 - 262.80 Fault @ 30° tca. Sericite + quartz. Moderately strong, sericitic shear with 10% milk-white to greyish green, quartz ± chlorite veins and trace, coarse grained, euhedral pyrite.	7853	262.50	263.00	0.50		Tr.	10	15	0.03	
			7854	263.00	264.00	1.00					NIL	
			7855	264.00	265.00	1.00					NIL	
			7856	265.00	266.00	1.00					0.02	
			7857	266.00	266.60	0.60					0.01	
		266.60 - 267.80 Moderately strong foliation and sericitization of graywackes.	7858	266.60	267.00	0.40			3	25	0.01	
		267.10 - 267.40 Fault @ 20° tca. Sericite + chlorite + quartz. Strong calcitic mud gouge, 2 mm wide, with fractured, irregular quartz + chlorite veining and strong sharp sericitic slips.	7859	267.00	267.40	0.40			15	40	0.03	
			7860	267.40	268.00	0.60				10	NIL	
			7861	268.00	269.00	1.00					NIL	
			7862	269.00	269.65	0.65					NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		269.65 - 270.10 Contact zone. Moderately deformed and marked by pink quartz + calcite veins, up to 15 cm wide, with sharp sericitic slips on vein boundaries.	7863	269.65	270.10	0.45				Qtz / Cal	0.02	
270.10	273.20	**LAPILLI TUFF** Massive, medium green, strongly magnetic tuff comprised of 5% angular, light brown to green, trachytic clasts, up to 3 cm (avg. 0.5 cm), floating in a very fine grained, grey-green, ash matrix. Undeformed and unaltered. Lower contact sharp @ 45° tca.										
273.20	277.20	**ASH TUFF** Massive, very fine grained, brown-green, ash tuff with 1% scattered angular lapilli clasts to 3 cm. Strongly magnetic. Non-descriptive. Lower contact marked by a 1 cm wide, quartz + sericite vein @ 50° tca.										
277.20	282.40	**GRAYWACKE/MUDSTONE/TUFF** Very irregular appearance due to intimately intercalated graywackes, mudstones and tuffaceous material including trachytic lapilli clasts. Entire section has a dirty mottled appearance with no particular unit being well developed. Graywacke contains irregular mudstone clasts as well as, 1-2%, scattered lapilli clasts in a quartz poor chloritic matrix. Weak to moderate wispy sericite alteration is pervasive while dark green, chloritic spotting is patchy but well developed in places which gives the section an overall mottled, spotty appearance.										
282.40	284.10	**MUDSTONE/SILTSTONE** Very fine grained to aphanitic, light green, massive siltstone. Non-bedded, very homogeneous. Lower contact sharp @ 15° tca.										
284.10	306.80	**ASH TUFF** Chlorite ± hematite. Massive, undeformed medium green to purple where hematitic. Very fine grained, non-bedded, homogeneous ash with less than 0.5% scattered lapilli clasts. Patchy strong magnetics.										
		286.00 - 293.00 Hematitic.										
		294.00 - 306.80 Unit looks very similar to a graywacke but contains little to no quartz, no jasper or exotic clasts.	7864	304.00	305.00	1.00					NIL	
			7865	305.00	306.00	1.00					NIL	
			7866	306.00	306.70	0.70						

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INTERVAL		DESCRIPTION	SAMPLE								ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
306.80	307.70	**MUDSTONE** Well bedded @ 45°tca (1 mm to 4 cm wide beds). Rhythmically layered, dark and light green, aphanitic mudstone and fine grained graywacke beds. Grades to predominantly graywacke @ 307.7 m.	7867	306.70	307.70	1.00					NIL	
307.70	333.80	**GRAYWACKE** Massive, fine grained, light green, well sorted graywacke with 0.5% scattered angular mudstone clasts and minor intercalated mudstone horizons to 1 metre wide. Pervasive weak to moderate, spotty sericite development. Contains 0.5%, barren, white quartz veinlets.	7868	307.70	308.50	0.80					0.03	
			7869	308.50	309.00	0.50					NIL	
			7870	309.00	309.80	0.80					NIL	
		310.00 Fault @ 75° tca. 1 cm wide, strong sericitic, mud slip. Dry and barren.	7871	309.80	310.40	0.60					NIL	
			7872	310.40	311.00	0.60					NIL	
			7873	311.00	312.00	1.00					NIL	
			7874	312.00	313.00	1.00					NIL	
			7875	313.00	314.00	1.00					0.02	
			7876	314.00	314.50	0.50					NIL	
		314.50 - 315.40 Light green, sericitic, aphanitic mudstone with sharp faulted contacts.	7877	314.50	315.50	1.00					0.01	
			7878	315.50	316.00	0.50					NIL	
		316.05 - 316.40 Quartz + chlorite + pyrite vein. 25 cm wide, somewhat irregular, white quartz vein with strong chloritic suturing to weak brecciation within sericitized graywacke. Chloritic slips have a blue-grey tinge due to smeared sulphides. Minor, coarser grained, disseminated pyrite on vein boundaries within sericitic graywacke.	7879	316.00	316.45	0.45		Tr.	25	30 Chl.	NIL	
		316.40 - 317.70 Graywackes are moderately sericitized and foliated and contain 2% irregular quartz and quartz chlorite veinlets. Trace disseminated pyrite.	7880	316.45	316.80	0.35		Tr.	2	15	0.07	
			7881	316.80	317.20	0.40		Tr.	2	15	0.04	
		317.20 Fault @ 80°tca. Strong, 2 cm wide, sericitic, mud gouge.										
		317.20 - 317.65 Quartz and quartz + chlorite veining. Barren, milk-white to blue-grey, quartz veining. Blue-grey veins are fractured with chlorite + sericite sutures and carry minor pyrite.	7882	317.20	317.70	0.50		Tr.	25	30 Chl.	NIL	
			7883	317.70	318.20	0.50					0.03	
			7884	318.20	319.00	0.80					NIL	
			7885	319.00	319.50	0.50		Tr.	Tr.	5-7	0.01	
			7886	319.50	320.00	0.50					NIL	
			7887	320.00	321.00	1.00					0.01	
			7888	321.00	322.00	1.00					NIL	
			7889	322.00	323.00	1.00					NIL	
			7890	323.00	324.00	1.00					0.03	
			7891	324.00	325.00	1.00					NIL	
			7892	325.00	326.00	1.00					0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			7893	326.00	327.00	1.00						NIL	
			7894	327.00	328.00	1.00			1	5		NIL	
			7895	328.00	328.50	0.50						NIL	
			7896	328.50	329.00	0.50						0.01	
			7897	329.00	330.00	1.00						0.03	
			7898	330.00	331.00	1.00		Tr.	10	10		0.07	
		331.15 - 331.30 Fault @ 45° tca. Sericite + quartz + chlorite ± pyrite. 7 cm wide, milk-white quartz ± albite vein with internal sericite + chlorite sutures @ 45°. Secondary quartz vein, 4 mm wide, with 0.5% pyrite which crosscuts earlier quartz veins at right angles.	7899	331.00	331.40	0.40						0.02	
			7900	331.40	332.00	0.60						NIL	
			7901	332.00	333.00	1.00						0.02	
									Tr.				
		333.80 Lower contact of unit is marked by a 5 cm wide, quartz + sericite ± albite vein. Milk-white, late, barren vein with sericitic slips contacts @ 60° tca.	7902	333.00	333.80	0.80						0.02	
333.80	339.50	**TRACHYTIC FLOW ?** Very distinctive unit. Massive to weakly poikilitic texture, light yellow-green with black spotting (phenocrysts?). Unit is comprised of 10-15%, sub to euhedral, black, chloritized laths (amphibole), up to 2 mm in length (avg. 0.75 mm), in an aphanitic, yellow-green, sericitized matrix. These crystals and crystal masses display a moderate trachytoid texture in places, possibly flow texture. Non-magnetic, quite soft. In places weak spotty leucoxene is developed. Lower contact is very sharp moderately sericitic and somewhat irregular.	7903	333.80	334.50	0.70						NIL	
			7904	334.50	335.00	0.50						0.43	
			7905	335.00	336.00	1.00						0.02	
			7906	336.00	337.00	1.00						NIL	
			7907	337.00	338.00	1.00						NIL	
			7908	338.00	339.00	1.00						0.07	
			7909	339.00	339.50	0.50						NIL	
339.50	362.00	**GRAYWACKE** Massive, light grey-green, fine grained, moderately well sorted. Graywackes are virtually non-deformed but are weakly to moderately pervasively sericitized which occur as: 1) small spots 2) tight sericitic wisps which wrap around quartz and lithic clasts 3) as sericitization (± fuchsite) alteration of certain clasts types (trachyte, mafic volcanics).	7910	339.50	340.00	0.50						0.01	
			7911	340.00	341.00	1.00						0.04	
			7912	341.00	341.60	0.60						0.01	
		341.60 - 345.40 Scattered, irregular, narrow, black chlorite and quartz + chlorite veinlets and seams, 1-3 mm wide, at various core angles. Occasional traces of fine grained pyrite associated with these veinlets.	7913	341.60	342.30	0.70		Tr.	3	10-15		0.02	
			7914	342.30	343.00	0.70						0.01	
			7915	343.00	343.40	0.40						0.01	
			7916	343.40	344.00	0.60		Tr.	1-2		Chl.	0.02	
			7917	344.00	344.45	0.45						NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		344.45 - 345.40 3-5%, quartz + chlorite veins @ 15° tca. Quartz is light green due to diffuse scattered chlorite. Chlorite + quartz veinlets are dark green-black, 1-3 mm wide, and with trace, sporadic, disseminated pyrite.	7918	344.45	345.00	0.55		Tr.	5		Chl.	NIL	
			7919	345.00	345.50	0.50		Tr.	5		Chl.	NIL	
			7920	345.50	346.00	0.50						0.01	
			7921	346.00	347.00	1.00						0.02	
			7922	347.00	347.40	0.40						0.03	
		347.40 - 348.60 Blue-green, 1 cm wide, quartz + chlorite vein @ 15° tca with thin hairline, chloritic cracks emanating from the vein into the wallrock. Trace pyrite associated with chloritic veins and 0.5% scattered pyrite in the graywacke.	7923	347.40	348.00	0.60		Tr.	1		Chl.	0.16	
			7924	348.00	348.60	0.60		Tr.	1		Chl.	0.03	
		348.60 - 349.20 Quartz and quartz + chlorite + pyrite zone. 10% irregular, white quartz veins cut by later light green, quartz + chlorite veins with trace pyrite.	7925	348.60	349.20	0.60		0.5	10-15	15	Chl.	NIL	
		349.00 3 cm wide, quartz + sericite vein @ 55° tca which is fractured and sutured by tight, sericite slips with 1% pyrite.	7926	349.20	350.00	0.80						0.01	
			7927	350.00	350.60	0.60						NIL	
			7928	350.60	351.30	0.70						0.02	
			7929	351.30	352.00	0.70						0.03	
			7930	352.00	353.00	1.00						0.03	
			7931	353.00	354.00	1.00						0.01	
			7932	354.00	354.60	0.60						NIL	
			7933	354.60	355.40	0.80			5	10-15		NIL	
			7934	355.40	356.00	0.60						0.01	
			7935	356.00	356.50	0.50						0.01	
			7936	356.50	357.00	0.50						0.03	
			7937	357.00	357.50	0.50						0.02	
			7938	357.50	358.10	0.60			Tr.	10		0.02	
			7939	358.10	358.60	0.50						0.05	
			7940	358.60	359.10	0.50						0.14	
		359.15 - 359.60 **QUARTZ + CHLORITE + PYRITE + GOLD ZONE** Upper contact is a sharp, strong sericite slip @ 67° tca. Lower contact somewhat more irregular but sharp and narrow quartz + chlorite vein @ 30° tca. Zone is comprised of 70% irregular, white to blue-grey, quartz flooding which is fractured and cut by siliceous, chloritic, fracture fillings intruding weakly deformed and sericitic graywackes. Remnant jasper clasts still evident within this silicified zone. Pyrite (1-2%) occurs as aphanitic dusting on chloritic fractures and as fine disseminations in quartz veins and graywacke matrix. VISIBLE GOLD evident as very fine grains and dusting within white to grey quartz veining.	7941	359.10	359.60	0.50		1-2	70	5-10	V.G.	45.09	39.77

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL		DESCRIPTION	SAMPLE									ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser		Au, g/t	Au,Check
		359.60 - 362.00 Weakly sericitic, massive, grey-green graywacke with trace, spotty pyrite. Very weakly deformed as evident by weak wispy sericite developed interstitial to rounded quartz grains and lithic clasts.	7942	359.60	360.00	0.40		Tr-0.5		10		2.90	
			7943	360.00	360.50	0.50		Tr.				0.22	
			7944	360.50	361.00	0.50		Tr.		5-10		1.94	
			7945	361.00	361.50	0.50		Tr.				2.73	
			7946	361.50	361.90	0.40		Tr.				0.95	
			7947	361.90	362.20	0.30		0.5	7	10		12.52	
362.00	368.40	**CONGLOMERATE** Upper contact marked by a 1 cm wide, white quartz vein adjacent to a sharp sericite slip @ 25° tca which carries 1% fine grained pyrite. Unit is typically a massive, undeformed, weakly sericitic polymictic pebble conglomerate.											
		362.00 - 362.20 Unit is cut by 5-7% milk-white, irregular quartz ± albite veins which have trace spotty pyrite. Conglomerate is moderately foliated, sericitic and contains 0.5% fine grained disseminated pyrite in matrix. 1-2% blue-grey quartz flooding with 10% pyrite.	7948	362.20	362.70	0.50		Tr.				0.86	
			7949	362.70	363.10	0.40		Tr.				0.07	
		363.10 - 364.20 Weakly deformed, sericitized conglomerate with patchy blue-grey silicification and 0.5-1% finely disseminated pyrite.	7950	363.10	363.40	0.30		Tr.				2.09	
		363.15 - 363.25 6 cm wide, white quartz + sericite + chlorite vein @ 55° tca. No visible pyrite.											
		363.40 - 363.85 Moderately silicified section with a blue-grey silicification and lesser white quartz veinlets. Zone carries 0.5-1% very finely disseminated pyrite.	7951	363.40	363.85	0.45		0.5-1	25	15	Sil.	20.78	
		363.85 - 364.25 Strongly silicified section with 50% irregular white to grey quartz veining and flooding and 0.5-1% disseminated pyrite.	7952	363.85	364.25	0.40		0.5-1	50	10	Sil.	27.27	25.54
			7953	364.25	364.65	0.40		Tr.				0.13	
			7954	364.65	365.15	0.50						0.06	
			7955	365.15	365.70	0.55						0.02	
			7956	365.70	366.20	0.50						0.01	
			7957	366.20	367.00	0.80						0.22	
			7958	367.00	367.50	0.50						0.04	
			7959	367.50	368.00	0.50						0.06	
			7960	368.00	368.40	0.40						0.01	
368.40	369.65	**SILTSTONE** Massive, fine to very fine grained grey-brown siltstone. Contains 10% thin hairline sericitic fractures and 0.5% very fine grained pervasive pyrite. Non-descriptive. Upper and lower contacts are very sharp @ 40-50° tca and represent primary bedding.	7961	368.40	369.00	0.60		Tr.				0.07	
			7962	369.00	369.65	0.65		Tr.				0.03	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
369.65	372.00	**GRAYWACKE** Massive, undeformed, fine grained, grey-green graywacke. Weak, spotty sericitization. Very clean, well sorted. Lower contact is somewhat irregular and undeformed with pebble conglomerate unit.	7963	369.65	370.10	0.45						0.04	
			7964	370.10	371.00	0.90						0.02	
			7965	371.00	372.00	1.00						NIL	
372.00	373.20	**CONGLOMERATE** Massive, undeformed, pristine, polymictic pebble conglomerate. Matrix supported, 20% well rounded clasts, up to 5 cm, in weakly sericitized graywacke matrix.	7966	372.00	372.60	0.60						NIL	
			7967	372.60	373.20	0.60						0.13	
373.20	375.15	**MUDSTONE** Deformed and sericitized. Aphanitic, yellow-green, massive to finely bedded mudstone with 20% intercalated graywacke. Very soft, pervasively sericitic. Bedding is highly contorted and deformed and the entire unit is cut by 10% irregular ptygmatically folded, white, barren qtz veins with fine black chloritic boundaries. Upper and lower contacts are sharp @ 35-40° tca.	7968	373.20	373.70	0.50			5			0.01	
			7969	373.70	374.20	0.50			10			0.01	
			7970	374.20	374.70	0.50						0.01	
			7971	374.70	375.20	0.50						0.01	
375.15	377.00	**GRAYWACKE** Deformed, moderately sericitized and foliated graywacke with strong fault zones throughout this section.											
		375.15 - 375.95 Foliated sericitized graywacke with sharp sericitic slips @ 30° tca and 0.5% pyrite.	7972	375.20	376.10	0.90		0.5	10	35	Tr.Cpy.	0.09	
		375.55 - 375.95 Moderately silicified zone with weak blue-grey quartz flooding carrying 0.5% disseminated pyrite and trace chalcopyrite.											
		376.05 - 376.10 Fault gouge @ 70° tca. Sericite + quartz + pyrite. Strongly sericitic mud gouge with 15%, blue-grey to white, quartz veins and 0.5% disseminated pyrite.	7973	376.10	376.45	0.35		Tr.				0.01	
		376.45 - 377.00 Sheared quartz + sericite + pyrite zone. Strong sericitic shearing developed @ 45-55° tca. Zone contains 10-15% white to blue-grey quartz veins up to 7 cm wide which are fractured and pseudo-brecciated by sericite and have 0.5-1% finely disseminated pyrite.	7974	376.45	377.00	0.55		0.5-1	10-15	50		0.04	
377.00	379.30	**MUDSTONE** Massive to poorly bedded, green-brown aphanitic mudstone with 5% irregular graywacke finely intercalated with the mudstone. Poor bedding developed @ 40° tca. Lower contact is marked by a 7 cm wide, quartz + sericite shear @ 55° tca.	7975	377.00	377.50	0.50						0.05	
			7976	377.50	378.00	0.50						0.06	
			7977	378.00	378.60	0.60						0.04	
			7978	378.60	379.40	0.80						0.08	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
379.30	382.40	**GRAYWACKE** Massive, fine grained, light grey-green. Very clean, well sorted. Undeformed with weak, spotty sericite development in matrix. Lower contact sharp @ 30° tca.	7979	379.40	380.00	0.60					0.01	
			7980	380.00	381.00	1.00					NIL	
			7981	381.00	381.00	0.00					0.04	
			7982	381.00	382.40	1.40					0.01	
382.40	389.30	**CONGLOMERATE** Massive, poorly sorted, polymictic pebble conglomerate. Classic pristine Timiskaming conglomerate. Weak spotty sericitization of matrix. Moderate clast elongation @ 40° tca. Some trachytic and mafic clasts are notably sericitized and frequently display dark chloritic boundaries. Harder clasts (quartz, jasper, etc.) retain roundness and primary condition.	7983	382.40	383.00	0.60					0.15	
			7984	383.00	384.00	1.00					0.09	
			7985	384.00	385.00	1.00					0.02	
			7986	385.00	386.00	1.00					0.04	
			7987	386.00	387.00	1.00					0.06	
			7988	387.00	388.00	1.00					0.17	
			7989	388.00	388.70	0.70					0.08	
			7990	388.70	389.30	0.60					0.07	
389.30	395.60	**MUDSTONE** Massive to poorly bedded, undeformed, unaltered, dark grey-green, aphanitic mudstone with minor intercalated graywacke. Upper and lower contacts sharp and somewhat irregular.	7991	389.30	390.00	0.70					0.02	
			7992	390.00	391.00	1.00					0.04	
			7993	391.00	392.00	1.00					0.08	
			7994	392.00	393.00	1.00					0.03	
			7995	393.00	394.00	1.00					0.03	
			7996	394.00	395.00	1.00					0.03	
			7997	395.00	395.60	0.60					0.03	
395.60	409.75	**GRAYWACKE** Massive, fine grained, light grey-green. Well sorted, very clean graywacke with minor intercalated mudstone horizons up to 0.5 m wide. Unit contains 2-3% irregular barren white quartz stockworking veinlets, ≤ 1 cm wide, throughout which frequently display weak to moderate bleaching alteration halos up to 0.5 cm from vein contacts.	7998	395.60	396.50	0.90					0.03	
			7999	396.50	397.50	1.00					0.05	
			8000	397.50	398.00	0.50					0.06	
			8001	398.00	398.60	0.60					0.03	
		398.60 - 399.40 Fault zone @ 40° tca. Sericite + quartz ± pyrite + strong mud fault gouge. Interstitial to these breaks is strongly deformed graywacke with 60% quartz flooding which is chloritic white to green-tinged with strong sericitic fracturing. Trace disseminated pyrite.	8002	398.60	399.50	0.90		Tr.	60	40	0.01	
		398.60 Strong fault mud gouge.										
		399.30 - 399.35 Strong fault mud gouge.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-31

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			8003	399.50	400.00	0.50					0.01	
			8004	400.00	401.00	1.00					0.04	
			8005	401.00	402.00	1.00					0.02	
			8006	402.00	402.80	0.80					0.01	
			8007	402.80	403.50	0.70					0.03	
			8008	403.50	404.00	0.50					0.01	
			8009	404.00	405.00	1.00					NIL	
			8010	405.00	406.00	1.00					0.03	
		406.40 - 406.50 Fault @ 60° tca. Sericite + quartz. 5 cm wide, strong, sericitic mud break with 15% barren, white, quartz vein.	8011	406.00	407.00	1.00					0.01	
		406.75 - 406.80 Fault @ 65° tca. Sericite + quartz. Strong tight, 1 cm wide, mud break with a 2 cm wide, white quartz + sericite vein.	8012	407.00	408.00	1.00					0.01	
			8013	408.00	409.00	1.00					0.04	
			8014	409.00	409.75	0.75					0.03	
	409.75	**END OF HOLE** Casing left in hole.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 15, 1991 - August 21, 1991	**EASTING**	8400.4
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10032.0
CLAIM No.	L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	314.3
STARTED	August 15, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 20, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	390.80
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test "102" structure

COMMENTS No anomalous assays

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	7.00	**OVERBURDEN**
7.00	15.10	**ASH TUFF**
		Foliated @ 20° tca.
15.10	17.40	**CONGLOMERATE**
17.40	17.70	**FAULT BRECCIA @ 35° TCA**
17.70	30.20	**ASH TUFF**
		Hematitic
		27.95 - 28.40 Fault @ 25° tca.
		29.70 - 30.20 Quartz + chlorite + pyrite veins.
30.20	33.40	**CONGLOMERATE**
33.40	35.20	**ASH TUFF**
35.20	60.00	**CONGLOMERATE/TUFF**
		Foliated @ 5-25° tca to 43.0 m.
60.00	77.70	**CONGLOMERATE**
		Chloritic
77.70	92.20	**ASH TUFF**
		Hematitic
		82.70 - 83.40 Fault @ 15° tca.
92.20	106.60	**LAPILLI TUFF**
		Chloritic, hematitic
106.60	107.70	**FAULT ZONE @ 45° TCA**
107.70	119.10	**ASH TUFF**
119.10	179.50	**LAPILLI TUFF/CONGLOMERATE**
179.50	221.10	**ASH TUFF**
221.10	249.20	**LAPILLI TUFF**
249.20	272.00	**ASH TUFF**
		269.70 - 270.00 Fault @ 40° tca.
272.00	279.50	**LAPILLI TUFF**
279.50	298.10	**ASH TUFF**
298.10	307.00	**GRAYWACKE/SILTSTONE**
		305.20 - 305.40 Fault @ 50° tca.
307.00	318.50	**ASH/LAPILLI TUFF**
318.50	327.00	**GRAYWACKE/SILTSTONE**
327.00	333.00	**LAPILLI TUFF**
		Bleached
333.00	354.50	**GRAYWACKE**
		336.60 - 337.40 Qtz + chlorite breccia ± pyrite.
		343.50 - 344.55 Qtz + chlorite breccia ± pyrite.
		347.50 - 348.20 Qtz + chlorite breccia ± pyrite.
		350.60 - 351.70 Qtz + chlorite breccia ± pyrite.
354.50	361.10	**GRAYWACKE/CONGLOMERATE**
		359.10 - 359.50 Fault @ 45° tca.
361.10	390.80	**GRAYWACKE**
	390.80	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 15, 1991 - August 21, 1991	**EASTING**	8400.4
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10032.0
CLAIM No.	L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	314.3
STARTED	August 15, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 20, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	390.80
				UNITS	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ
COMMENTS	No anomalous assays	**SIGNED BY**	_____ (W. Benham)		

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	341	60
7.3			60
30.0			60
61.0			59
91.0			57
122.0			56
154.0			55
185.0			54
215.0			53
246.0			52
275.0			51

Depth	Method	Azimuth	Dip
307.0			49
335.0			47
365.0			47
387.1	Tropari	337	47

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	7.00	**OVERBURDEN**										
7.00	15.10	**ASH TUFF** Deformed, sericitized, dirty brown-green, fine grained, massive to strongly foliated @ 20° tca, to red-brown and micro-fractured. Comprised of 70%, thin, 1-3 mm, red-pink to grey trachyte clasts which are angular and typically crushed, and fractured in a very fine grained wispy sericitic matrix. Strong fine fracturing or "crackle" texture is evident. Unit contains 5-6% quartz + chlorite fracture filling and breccia veinlets @ 5-20° tca which represent late fracture fillings associated with cross-faulting and range from hairline cracks which open to barren quartz + chlorite breccia veinlets up to 1-2 cm wide. Lower contact moderately to strongly deformed, with sharp, irregular chlorite + sericite slips @ 25° tca. 7.00 - 43.00 Ground is strongly fractured and rubbly due to low angle cross-faults and fracturing @ 5-25° tca. 97% recovery. 10.40 - 10.80 Fault @ 20° tca. Chlorite + sericite + quartz + calcite. Strong, 1 cm wide, chloritic mud break and brecciated white quartz vein centred @ 10.6 m. Wall rock for 20-30 cm proximal to shear is strongly foliated to schistose, sericitic and intruded by 20% barren, white-pink quartz ± calcite veinlets up to 2 cm wide. 10.80 - 15.10 Unit is somewhat more massive, less strongly foliated and sericitic but evidence of grain crushing, fine hairline fracturing and 20% irregular wispy sericite in matrix is still prevalent. 12.60 2 cm wide quartz + chlorite breccia vein @ 25° tca.										
15.10	17.40	**CONGLOMERATE** Strongly deformed, fractured, polymictic pebble conglomerate with a wispy to spotty sericitized matrix and fractured, broken and elongated pebbles. Strong chloritic ± quartz infilling on anastomosing fractures subparallel tca. Late barren quartz veinlets also seen penetrating fractures in framework pebbles.	8077 8078 8079	15.00 16.00 17.00	16.00 17.00 17.40	1.00 1.00 0.40			15		NIL 0.02 0.01	
17.40	17.70	**FAULT BRECCIA @ 35° TCA** 35% angular, lithic fragments up to 2 cm, avg. 0.5 cm, in a fine grained black quartz + chlorite breccia matrix. Breccia fragments are predominantly red-pink trachyte (?) and/or broken feldspars with lesser amounts of wall rock fragments including jasper from the above sediments.	8080	17.40	17.70	0.30				Chl.	0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
17.70	30.20	**ASH TUFF** Quite massive, hematitic, fine grained, red-brown tuff. Very hard and syenitic in appearance. Comprised of 75% very fine grained, red trachyte/syenite ash and broken, crushed feldspar in an aphanitic ground mass (25%). A few minor sedimentary clasts (i.e. quartz + jasper) are scattered throughout the unit and total < 0.5%. Unit shows deformation of a mere brittle character such as strong chloritic fracturing and open quartz + chlorite breccia veinlets @ 0-20° tca. Earlier 2% barren white quartz veinlets @ 60° tca are cut by later chloritic fracturing at low angles. Trace pyrite on some chloritic fractures.	8081	17.70	18.50	0.80					0.04	
			8082	18.50	19.00	0.50					0.02	
			8083	19.00	19.50	0.50					0.02	
			8084	19.50	20.00	0.50			7		0.03	
			8085	20.00	20.50	0.50		Tr.	2		0.04	
			8086	20.50	21.00	0.50		Tr.	1		0.01	
			8087	21.00	21.50	0.50					NIL	
			8088	21.50	22.00	0.50					NIL	
			8089	26.00	27.00	1.00					0.01	
			8090	27.00	27.85	0.85					NIL	
		27.95 - 28.40 Fault zone @ 25° tca. Chlorite + quartz ± calcite. Strong, rubbly, chloritic gouge with white-pink quartz + calcite.	8091	27.85	28.50	0.65	40				0.03	
			8092	28.50	29.00	0.50			5		0.01	
			8093	29.00	29.70	0.70					NIL	
		29.70 - 30.20 Quartz + chlorite + pyrite veins @ 10° tca. 1-4 mm wide, irregular, anastomosing white-grey, quartz/chlorite veining with 1-2% very fine pyrite veinlets and seam filling.	8094	29.70	30.25	0.55		1	5		0.02	
30.20	33.40	**CONGLOMERATE** Strongly fractured, sericitized, deformed, polymictic conglomerate with stretched and fractured clasts within a foliated sericitized matrix. Strong chloritic fracturing and 5% narrow quartz + chlorite breccia veinlets @ 10-35° tca.	8095	30.25	30.75	0.50					NIL	
			8096	30.75	31.15	0.40					NIL	
		31.15 - 31.65 Narrow, 1-3 mm, blue-grey cherty vein @ 5° tca with fine grained, semi-massive pyrite on cherty fractures and as thin veinlets (0.5% pyrite).	8097	31.15	31.65	0.50		0.5	3	15	0.03	
			8098	31.65	32.40	0.75					NIL	
33.40	35.20	**ASH TUFF** Massive, hard, fine grained, red-brown, syenitic in appearance but comprised of 70%, red trachyte/syenite clasts, (avg. 1 mm) which are somewhat crushed. Non-magnetic. Brittle deformation with 2-3% quartz + chlorite breccia veinlets. Lower contact is foliated, sericitized @ 30° tca.										
35.20	60.00	**CONGLOMERATE/TUFF** 35.20 - 43.00 Moderately, strongly deformed, foliated to sheared, polymicitc pebble conglomerate. Strong clast elongation @ 5-25° tca. Entire section contains 5% strong sericite +										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
		chlorite ± quartz slips and shears up to 5 cm wide @ 20-30° tca and 2-3% barren, late quartz veinlets. Matrix is fine grained, weakly to moderately sericitic and may be in part comprised of fine, red trachytic ash.										
		43.00 - 60.00 Unit becomes less deformed, massive, chloritic, polymictic conglomerate. Comprised of 25-30% well rounded to sub-angular polymictic clasts from 2-3 mm to 10-15 cm in size. Poorly sorted. Matrix is somewhat variable from a chloritic quartz arenite (graywacke), to a red-brown, fine grained, trachytic ash, comprised predominantly of 0.5-1 mm red, aphanitic trachyte and minor quartz and lithics. Unit is intimately associated with ash tuffs horizons as evidenced by sections comprised predominantly of fine grained trachyte ash with 1-2% scattered rounded polymictic pebbles. Grades into a more typically arenaceous, chloritic conglomerate @ ≈60.0 metre.										
		48.00 - 51.50 Ash tuff, massive to finely bedded @ 15° tca. Comprised of 70%, fine, well sorted, red-brown trachyte, ≤ 1 mm, in an aphanitic, chloritic ground mass. 1% scattered, well rounded, polymictic pebbles. Contacts with conglomerate are gradational over 0.5 m. Weak, patchy magnetics.										
60.00	77.70	**CONGLOMERATE** Classic, massive, chloritic, polymictic pebble conglomerate. 10-40% well rounded polymictic clasts, in a fine grained, grey-green, chloritic graywacke matrix. Matrix supported. Undeformed, unaltered with minor late, barren, white irregular quartz veinlets.										
77.70	92.20	**ASH TUFF** Hematitic, red-brown to mauve coloured, massive fine grained trachyte ash. Comprised predominantly of very fine grained red trachyte/syenite clasts, ≤ 1 mm, with lesser amounts of fine, broken feldspar and minor lithics. Scattered through unit is <1% rounded polymictic clasts (pebbles), including quartz, jasper and mafic volcanics, floating in the fine ash matrix. This gives unit a locally poor conglomerate nature. Patchy strong magnetics Contact with upper unit is sharp and somewhat irregular @ 35° tca.										
		82.70 - 83.40 Fault @ 15° tca. Chlorite + quartz. 0.5%-1 cm wide chloritic fracture with 15% irregular white-pink quartz veining. Rubbly broken ground. 75% recovery.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
92.20	106.60	**LAPILLI TUFF-HETEROLITHIC** Chloritic + hematitic. Massive, dark grey-green to red, undeformed, unaltered. Comprised of 5-15% angular to well rounded lapilli clasts and pebbles in a very fine grained trachyte/syenite ash matrix with little to no quartz. Clasts vary from angular red-brown trachyte to trachyte porphyry and dark green mafic volcanics. No quartz or jasper clasts evident. Unit is conglomerate in places but lacks the characteristic arenaceous matrix. Moderately, to strongly magnetic. 101.20 - 106.60 Unit has a red-brown syenitic appearance.										
106.60	107.70	**FAULT ZONE @ 45° TCA** Quartz + sericite. 25-30% barren, white quartz ± albite veins, up to 2 cm wide, within sheared, sericitized fault zone. Barren, non-mineralized. 106.60 - 107.00 Rubbly broken core.										
107.70	119.10	**ASH TUFF** Massive to well bedded @ 35° tca. Very fine grained, grey-green to brown. Bedding defined by fine laminations, <1 mm wide. Minor scattered, chloritized lapilli clasts. Moderately magnetic. Finely intercalated with heterolithic, lapilli tuff horizons, up to 1 m wide. Lower contact somewhat gradational.										
119.10	179.50	**LAPILLI TUFF/CONGLOMERATE** Heterolithic, chloritic + hematitic, massive, undeformed, unaltered. Grey-green to mauve where pervasively hematitic. Unit is quite variable, containing 1-20% angular to sub-rounded heterolithic clasts up to 6 cm (avg. 1-2 cm) in a fine grained, dark green to red, trachyte ash matrix. In part tuffaceous conglomerate. In places, small sections, < 1 m wide, are conglomerate in appearance with rounded clasts and the occasional jasper pebble. Unit is intimately intercalated with ash tuff horizons up to 3 m wide. These ash tuff horizons are of equivalent composition, massive to finely bedded, @ 40-50° tca, with both gradational and sharp contacts. All sections are moderately to strongly magnetic. Clasts are variable but predominantly trachyte and range from buff to grey, red-pink to dark green and fine grained to porphyritic. (<1% pebbles) Very massive, hard, competent ground.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
		121.70 Fault @ 55° tca. Chlorite + sericite + quartz. 2 cm wide chlorite shear with white, fractured quartz veinlet within foliated, sericitic tuff.										
		154.30 - 154.45 Fault @ 25° tca. Sericite + chlorite + quartz/calcite. 10-12 cm wide, sericitized tuff with strong, tight, chloritic slips and 15% white-pink quartz + calcite veining which is fractured and disrupted.										
179.50	222.10	**ASH TUFF** Chloritic + hematitic, massive, non-bedded, dark grey-green, very fine grained with a weak, purplish hue. Comprised of 30% red-pink, very fine grained, trachytic ash in an aphanitic, chloritic ground mass. Very homogeneous, monotonous. Weak, wispy bedding @ 30° tca. Strongly magnetic and contains <1% late, white to pink, quartz ± calcite veinlets.										
		221.60 - 221.90 Fault @ 35° tca. Sericite + chlorite + quartz + calcite. Strongly foliated to schistose, sericitic tuff with 2% barren, white-pink quartz + calcite veining up to 2 cm wide. Marks bedding contact.										
222.10	249.20	**LAPILLI TUFF** Chloritic + hematitic, massive, undeformed, unaltered, dark red-black. Quite coarse lapilli (fine block) tuff, comprised predominantly of angular, red-brown, trachyte clasts from 2-3 mm to 5-6 cm (avg. 2 cm) in size, in a very fine, dark ash matrix. Clasts comprise 15-20% of unit, predominantly monolithic (80%) and displays aphanitic to trachytoid textures. Strongly magnetic. Equivalent to monolithic block tuff unit. Lower contact gradational over 1 m.										
		238.60 - 239.20 Fault @ 5° tca. Chlorite + quartz + calcite. 2 mm wide, strong, chloritic fracture @ 5° tca with barren white-pink quartz + calcite veining adjacent to slip.										
249.20	272.00	**ASH TUFF** Chloritic + hematitic, massive, undeformed, unaltered, dark grey-green to black. Generally fine to very fine grained trachyte ash in an aphanitic, chloritic ground mass. A few minor lapilli clasts scattered through unit. Strongly magnetic. Hard, competent ground. Quite homogeneous and nondescript. Lower contact gradational over 1-2 m.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		269.70 - 270.00 Fault @ 40° tca. Sericite + chlorite + quartz. Buff-brown, bleached, sericitized tuff with sharp, strong chlorite + sericite slips and minor barren quartz veining.										
272.00	279.50	**LAPILLI TUFF** Chloritic + hematitic, massive, undeformed, unaltered, dark green to red-brown, strongly magnetic. Comprised of 5-10% angular trachyte clasts up to 2 cm (avg. 0.5 -1 cm) which are predominantly dark red-brown in a fine grained dark green ash matrix. 279.00 - 279.50 Grades to ash tuff.										
279.50	298.10	**ASH TUFF** Chloritic + hematitic, massive, fine grained, dark green to mauve with pervasive hematization. Nondescript. Poorly developed bedding @ 50° tca. Undeformed, unaltered and strongly magnetic. Lower contact of unit is marked by a 1 cm wide sericite + quartz shear @ 55° tca. 288.10 Fault. Chlorite + specularite + quartz. 0.5 cm wide, purple chloritic slip with smeared hematite staining and minor quartz veining. 292.00 - 298.10 Unit grades to a poor lapilli tuff comprised of 1-2% buff, angular trachyte clasts in a red-mauve, hematitic, very fine grained ash matrix as above.										
298.10	307.00	**GRAYWACKE/SILTSTONE** Massive to crudely bedded, chloritic, finely intercalated graywacke, siltstone and conglomerate horizons displaying irregular, sharp to gradational contacts. Units are grey-green chloritic and vary from massive, very fine grained siltstones, fine grained graywackes and poor pebble conglomerates. Pebbly graywackes ranging from 10 cm to 75 cm in width. Cut by 1-2% white to pink quartz ± calcite veinlets at various core angles. 305.20 - 305.40 Fault zone @ 50° tca. Sericite + quartz + calcite. 20 cm wide, irregularly deformed, crenulated, sericitic shear with 10-15% irregular white-pink quartz + calcite veining.	8099	298.10	298.50	0.40		Tr.	Tr.	0.02	
			8100	298.50	299.00	0.50					NIL	
			8101	299.00	300.00	1.00					0.02	
			8102	300.00	300.90	0.90					0.01	
			8103	300.90	301.00	0.10		2	2		0.02	
			8104	301.00	302.00	1.00					0.02	
			8105	302.00	303.00	1.00					NIL	
			8106	303.00	304.00	1.00					0.02	
			8107	304.00	304.50	0.50					0.01	
			8108	304.50	305.10	0.60					0.01	
			8109	305.10	305.60	0.50		10-15	25		0.03	
			8110	305.60	306.50	0.90					0.02	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		306.90 - 307.00 Sheared, sericitized contact with 2% narrow, 1-3 mm wide, irregular white quartz veinlets within crenulated, sericitic matrix.	8111	306.50	307.25	0.75			5	10-15	0.01	
307.00	318.50	**ASH/LAPILLI TUFF** Massive, grey-green to red-brown, fine to very fine grained trachyte ash tuff with 1-2% scattered, angular lapilli clasts. Buff to grey. Comprised of very fine grained trachyte lithic clasts and feldspar (≤ 2 mm) in a dark aphanitic ground mass. Moderately magnetic. Lower contact of unit is gradational over 1 m with gradual increase in siltstone and graywackes.										
		307.00 - 307.20 White-pink quartz + calcite breccia veinlets, ≤ 2 cm wide, with angular wall rock inclusions.	8112	307.25	308.00	0.75					0.03	
			8113	308.00	309.00	1.00					NIL	
			8114	309.00	310.00	1.00					0.02	
			8115	310.00	311.00	1.00					0.02	
		311.00 - 312.80 Fault @ 7° tca. Tight, strong, chloritic slip with dextral slickenslides and a 1 cm wide quartz + calcite veinlet on slip walls.	8116	311.00	312.00	1.00					0.01	
			8117	312.00	313.00	1.00					0.01	
			8118	313.00	314.00	1.00					0.02	
			8119	314.00	315.00	1.00					0.01	
			8120	315.00	316.00	1.00					NIL	
			8121	316.00	317.00	1.00					0.02	
			8122	317.00	318.00	1.00					0.01	
			8123	318.00	318.50	0.50					0.01	
318.50	327.00	**GRAYWACKE/SILTSTONE** Massive, undeformed, intercalated, graywacke and siltstone. Grey-green, chloritic with irregular, sharp contacts. Siltstone horizons, up to 30 cm, wide in a predominantly graywacke host. Lower contact, sharp and marked by a tight sericite slip and 0.5 m irregular quartz veinlet.	8124	318.50	319.00	0.50					0.02	
			8125	319.00	319.50	0.50					0.03	
			8126	319.50	320.00	0.50					NIL	
			8127	320.00	320.50	0.50					0.02	
			8128	320.50	321.50	1.00					0.03	
			8129	321.50	322.00	0.50					0.01	
			8130	322.00	323.00	1.00					0.02	
			8131	323.00	324.00	1.00					0.01	
		324.30 - 327.00 Fine grained graywacke. Massive, well sorted, very clean, unaltered and undeformed. 10% fine quartz in matrix.	8132	324.00	325.00	1.00					0.01	
			8133	325.00	326.00	1.00					0.03	
			8134	326.00	326.50	0.50					0.01	
		326.50 - 326.90 Quartz stockwork. 3-5%, barren, white quartz stockwork in weakly sericitic graywacke. Veinlets range from 2 mm to 1 cm and display two generations of crosscutting veinlets.	8135	326.50	327.00	0.50			3	10	0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
327.00	333.00	**LAPILLI TUFF** Dirty green-brown to buff coloured tuff comprised of 5-7% angular, grey-brown, lapilli clasts up to 4 cm (avg. 1-2 cm) in a very fine grained to aphanitic bleached matrix. In places, fine, narrow, black euhedral magnetic grains up to 1 mm are evident within an aphanitic bleached ground mass. Pervasively sericitized. Moderately magnetic. Lower contact is moderately deformed and sericitic with 10% irregular quartz + calcite veining.	8136	327.00	327.50	0.50					0.01	
			8137	327.50	328.00	0.50					NIL	
			8138	328.00	329.00	1.00					0.04	
			8139	329.00	330.00	1.00					0.02	
			8140	330.00	331.00	1.00					NIL	
			8141	331.00	332.00	1.00					0.02	
			8142	332.00	332.50	0.50					0.01	
			8143	332.50	333.00	0.50					0.01	
333.00	390.80	**GRAYWACKE** Massive, fine grained, undeformed graywacke. Light grey-green with weak, spotty, pervasive sericitization. Unit contains < 1% mudstone chips.										
		333.00 - 335.00 Few scattered, angular lapilli clasts.	8144	333.00	333.50	0.50					0.01	
			8145	333.50	334.00	0.50					0.01	
			8146	334.00	334.50	0.50					NIL	
			8147	334.50	335.00	0.50					0.02	
			8148	335.00	335.50	0.50					0.02	
			8149	335.50	336.00	0.50		Tr.	1	Tr.	0.01	
			8150	336.00	336.40	0.40	95	Tr.	3-4	5	0.01	
		336.60 - 337.40 Quartz stockwork zone. 2-3% irregular white quartz and quartz breccia veinlets, 2 mm to 2 cm wide, stockworking, in weakly sericitic graywackes. Veinlets frequently have light green chloritic boundaries and carry trace disseminated pyrite and very minor chalcopyrite. Breccia veins have angular, included wall rock fragments and secondary milk-white albite.	8151	336.40	337.00	0.60		Tr.	5	2	0.01	
			8152	337.00	337.50	0.50		Tr.-0.5	2-3	2	0.02	
		336.10 - 336.30 Broken rubbly ground, 90% recovery, with a quartz ± albite + chlorite breccia vein with trace, 0.05%, disseminated pyrite.										
		336.30 - 337.40 Quartz breccia vein and stockworking, 1-7 mm wide, subparallel tca with chloritic boundaries and trace scattered pyrite.	8153	337.50	338.00	0.50		Tr.	Tr.	Tr.	0.01	
			8154	338.00	338.50	0.50					0.02	
			8155	338.50	339.00	0.50					0.01	
			8156	339.00	339.50	0.50					NIL	
			8157	339.50	340.00	0.50					NIL	
			8158	340.00	340.50	0.50					NIL	
			8159	340.50	341.00	0.50					0.02	
			8160	341.00	341.50	0.50					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			8161	341.50	342.00	0.50					NIL	
			8162	342.00	342.50	0.50					0.02	
			8163	342.50	343.00	0.50					NIL	
	343.00 - 343.50	Aphanitic, yellow-green, sericitic mudstone interbed with very weak chloritic fracturing.	8164	343.00	343.50	0.50					0.01	
	343.50 - 344.55	Quartz + chlorite breccia veining. Open, strong, chlorite + calcite fracture @ 0° tca which post-dates previous veining episode. Mineralized veins are blue-grey, wispy, chlorite ± quartz fracture filling and veining predominantly @ 0-30° tca. Very irregular and range from hairline cracks to quartz + chlorite veins to 1 cm. These fine chloritic fractures, carry very finely disseminated pyrite, while host graywackes are non-mineralized.	8165	343.50	344.00	0.50		Tr.	5	10	0.02	
			8166	344.00	344.60	0.60	97	Tr-0.5	3	Tr.	0.01	
			8167	344.60	345.00	0.40					0.01	
			8168	345.00	345.50	0.50		Tr.	Tr.		0.03	
			8169	345.50	346.00	0.50					0.05	
			8170	346.00	346.50	0.50		Tr.	3-4		0.02	
			8171	346.50	347.00	0.50		Tr.	1		0.04	
			8172	347.00	347.50	0.50		Tr.	Tr.		0.03	
	347.50 - 348.20	10% quartz + chlorite breccia and stockwork veining with included graywacke fragments. Very minor trace pyrite on vein boundaries.	8173	347.50	348.20	0.70		Tr.	10	15	0.01	
			8174	348.20	348.70	0.50		Tr.	2		0.05	
			8175	348.70	349.20	0.50					0.02	
			8176	349.20	349.70	0.50					0.01	
			8177	349.70	350.20	0.50					0.05	
			8178	350.20	350.60	0.40					0.02	
	350.60 - 351.70	Quartz + chlorite breccia veining. Irregular quartz + chlorite stockworking with dark chloritic boundaries and trace disseminated pyrite and minor blebby chalcopyrite. 10%, 1 mm-2 cm wide, quartz veins. Predominant vein fracturing is subparallel tca with irregular quartz + chlorite stockworking, splaying out from this main fracture set.	8179	350.60	351.10	0.50		Tr.	2		0.03	
			8180	351.10	351.60	0.50					0.03	
			8181	351.60	352.00	0.40		Tr.		10	0.01	
			8182	352.00	352.50	0.50		Tr.	Tr.		0.04	
			8183	352.50	353.00	0.50		Tr.	2		0.01	
	353.00	Quartz + chlorite stockworking and veining dissipates.	8184	353.00	353.50	0.50					0.02	
			8185	353.50	354.00	0.50			Tr.		0.01	
			8186	354.00	354.50	0.50					0.04	
	354.50 - 361.10	Poor conglomerate, pebbly graywacke with 2-3%, scattered, polymictic pebbles. Quartz, jasper, mudstone and fuchsitic volcanics, in a very clean, well sorted, graywacke matrix.	8187	354.50	355.00	0.50					0.04	
			8188	355.00	356.00	1.00					0.01	
			8189	356.00	357.00	1.00					0.02	
			8190	357.00	358.00	1.00					0.04	
			8191	358.00	359.00	1.00					0.02	
	359.10 - 359.50	Fault @ 45° tca. Sericite + quartz. Rubbly, broken ground with strong calcitic mud breaks, up to 1 cm wide, in strongly deformed, sericitic graywacke. Probable cross-fault.	8192	359.00	359.60	0.60	95			40	0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-32

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		359.50 - 390.80 Unit is massive, monotonous, well sorted, clean graywacke with ≤ 1% scattered mudstone and lithic pebbles. Massive, non-bedded with a weak, pervasive, spotty sericite development. Non-magnetic, undeformed.	8193	359.60	360.20	0.60					0.03	
			8194	360.20	361.00	0.80					0.01	
			8195	361.00	362.00	1.00					0.03	
			8196	362.00	363.00	1.00					NIL	
			8197	363.00	364.00	1.00					0.02	
			8198	364.00	365.00	1.00					0.02	
			8199	365.00	366.00	1.00					0.01	
			8200	366.00	367.00	1.00					0.03	
			8201	367.00	368.00	1.00					0.04	
			8202	368.00	369.00	1.00					0.02	
			8203	369.00	370.00	1.00					0.02	
		370.10 - 370.55 Semi-massive quartz ± albite vein within sericitic mudstone horizon which is very irregular. Trace subhedral pyrite evident in places on vein margin.	8204	370.00	370.60	0.60		Tr.	40		0.02	
			8205	370.60	371.00	0.40					0.01	
			8206	371.00	372.00	1.00					0.01	
			8207	372.00	373.00	1.00					0.02	
	390.80	**END OF HOLE** Casing left in hole.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 22, 1991 - August 29, 1991	**EASTING**	7914.6
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10391.9
CLAIM No.	L 491650, L 491651	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	344.4
STARTED	August 21, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 28, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	454.75
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test "102" structure

COMMENTS "103" gold zone @ 275.50 - 276.10, 0.60 m.
"102" gold zone @ 378.80 - 379.25, 0.45 m.

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	2.13	**OVERBURDEN**
2.13	26.90	**LAPILLI/ASH TUFF**
		25.00 - 25.50 Fault @ 15-40° tca.
26.90	62.80	**SILTSTONE/MUDSTONE**
		54.80 - 55.10 Fault @ 30° tca.
62.80	228.10	**LAPILLI TUFF**
		139.70 - 139.90 Fault @ 55° tca.
		146.90 - 147.30 Fault @ 45° tca.
		189.00 - 189.01 Fault @ 35° tca.
		212.80 - 213.50 Shear zone @ 25° tca.
		226.50 - 226.90 Fault @ 60° tca.
		227.60 - 228.10 Fault @ 65° tca.
228.10	229.60	**GRAYWACKE**
229.60	232.70	**MUDSTONE**
232.70	240.20	**LAPILLI TUFF**
240.20	246.90	**GRAYWACKE**
246.90	248.90	**LAPILLI TUFF**
248.90	255.90	**MUDSTONE/SILTSTONE**
		251.25 - 251.35 Quartz + sericite + pyrite vein @ 70° tca.
255.90	282.90	**GRAYWACKE**
		1-2% quartz + chlorite veinlets @ 15-65° tca, trace pyrite.
282.90	337.70	**ASH TUFF**
		306.90 - 307.20 Fault zone @ 50° tca.
337.70	370.70	**LAPILLI TUFF**
		340.50 - 350.00 Fractured, sericitic, bleached. 1-3% quartz + calcite and chlorite veinlets @ 10-15° tca.
370.70	389.10	**LAPILLI TUFF**
		Sericitic
		389.00 - 389.10 Fault @ 60° tca.
389.10	398.00	**LAPILLI TUFF/SILTSTONE**
398.00	411.00	**LAPILLI TUFF**
411.00	414.90	**SILTSTONE**
414.90	423.80	**LAPILLI TUFF**
423.80	432.30	**SILTSTONE/MUDSTONE**
		427.40 - 429.00 Shear zone @ 45° tca.
432.30	454.75	**GRAYWACKE**
		442.90 Fault @ 30° tca.
	454.75	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
275.50	276.10	0.60	0.13
378.80	379.25	0.45	0.16

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 22, 1991 - August 29, 1991	**EASTING**	7914.6
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10391.9
CLAIM No.	L 491650, L 491651	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	344.4
STARTED	August 21, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	August 28, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	454.75
				UNITS	metres
PURPOSE	To test "102" structure			**CORE SIZE**	NQ

COMMENTS "103" gold zone @ 275.50 - 276.10, 0.60 m.
"102" gold zone @ 378.80 - 379.25, 0.45 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	161	65
3.0			65
30.0			65
48.0	Tropari	166	63
61.0			64
93.0			63
124.0			63
152.0			63
185.0			62
215.0			60
246.0			59

Depth	Method	Azimuth	Dip
277.0			60
305.0			59
335.0			60
368.0			58
396.0	Tropari	169	57
398.0			57
450.0	Tropari	170	59

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
0.00	2.13	**OVERBURDEN**										
2.13	6.80	**ASH TUFF** Massive, fine grained, red-brown to purple. Comprised of 30% fine red trachyte/syenite clasts up to 1 mm in a aphanitic ground mass. Moderately magnetic. Unit is fractured and rubbly in places, due to low angle fracturing and faulting @ 10° tca. (cross faulting). Strong chlorite + ankerite + quartz slips @ 10° tca. 3-5% late barren, fracture filling quartz veinlets up to 1 cm @ 30° tca. Strong hematitic coloration gives way gradually to a more chloritic assemblage @ 6.8 m. 5.20 - 6.00 Fault @ 10° tca. Chlorite + ankerite + quartz ± calcite. Ankerite stained chloritic slip with 10% quartz + calcite breccia veining with included, angular wall rock inclusions.										
6.80	26.90	**LAPILLI/ASH TUFF** Dark grey-green, chloritic, massive lapilli tuff with intercalated ash tuff horizons up to 1 m wide. Lapilli tuffs contain 3-5% angular trachytic clasts up to 3 cm (avg. 0.5-1 cm) in a very fine ash matrix. Clasts vary from buff-brown, to grey, to red, generally fine grained trachyte, occasionally porphyritic. Ash tuff horizons display gradational contacts and in places bedding is well developed @ 20° tca. Moderately to strongly magnetic. Unit contains 2% barren white quartz veins @ 15-30° tca which frequently have buff-brown, weakly sericitic alteration halos up to 2-3 cm wide, proximal to veins. 15.70 - 15.80 Fault @ 15° tca. Chlorite + quartz ± calcite. 3 cm wide chlorite + quartz breccia vein with wall rock and quartz vein inclusions proximal to a sharp, strong, chloritic slip. 25.00 - 25.06 Strong 6 cm wide quartz + sericite fault @ 40° tca. 25.00 - 25.30 Fault zone @ 15-40° tca. Sericite + chlorite + quartz. 25.30 - 25.50 Strong, tight sericite + quartz + ankerite fault @ 15° tca. Barren, late, non-mineralized. 26.80 - 26.90 Fault breccia @ 45° tca. Angular, fractured and brecciated white-pink quartz fragments in a very fine grained black, chlorite ± quartz ground mass. Non-mineralized.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
26.90	62.80	**SILTSTONE/MUDSTONE** Massive to well bedded, very fine grained to aphanitic. Dark grey-green, chloritic and non-magnetic. Undeformed, unaltered siltstone/mudstone displaying irregular fine bedding which varies from 5-40° tca. Bedding displays soft sediment features such as flame structures, irregular bedding and small scale step-faulting (dextral). Minor pebbly horizons up to 20 cm wide occur in places. Unit is also in part intercalated with narrow lapilli tuff horizons, up to 75 cm wide, which are comprised of buff-grey and brown, angular trachyte lapilli clasts, to 2 cm, in a fine grained mixed arenaceous to tuffaceous matrix. Cut by at least two generations of barren quartz ± albite veinlets , 1 mm -1 cm wide, which frequently display buff-brown, bleached, alteration halos up to 5 cm wide. Lower contact is a sharp bedding contact @ 30° tca.											
		38.30 - 40.85 Polymictic pebble conglomerate horizon with sharp irregular contacts. Weakly sericitic, matrix supported.										
		51.00 - 54.20 Well bedded, finely laminated mudstone/siltstone @ 25° tca.	8208	51.00	52.00	1.00						0.01	
			8209	52.00	53.00	1.00						NIL	
			8210	53.00	54.00	1.00						0.01	
			8211	54.00	54.75	0.75						0.01	
		54.80 - 55.10 Fault @ 30° tca. Quartz + chlorite + sericite. 80% massive to fractured and sheared quartz ± albite veining with interstitial chlorite + sericite slips and slip walls. Minor gouge developed. Minor trace chalcopyrite on fine fractures.	8212	54.75	55.20	0.45		80	20	Tr. Cpy		0.01	
			8213	55.20	56.00	0.80						NIL	
			8214	56.00	57.00	1.00						0.01	
62.80	101.00	**LAPILLI TUFF** Massive, undeformed, unaltered, grey-green, chloritic. Comprised of 5-10% angular light grey to buff brown, heterolithic, trachyte clasts (avg. 0.5 cm) in a very fine grained, light grey-green, possibly augite-bearing, chloritized ground mass. Patchy strong magnetics. Lapilli tuff unit is massive, non-bedded but is intercalated with narrow sedimentary horizons @ 5-15° tca. These sedimentary horizons are predominantly mudstones but include a small quantity of graywacke and pebbly graywackes.											
		66.70 - 67.40 Siltstone interbed @ 5° tca.											
		71.50 - 72.80 Mudstone bed, finely laminated @ 5° tca.											
		97.30 - 100.60 Aphanitic mudstone/siltstone bed @ 10-20° tca. Oscillates in and out of core.											

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DIAMOND DRILL LOG

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
101.00	228.10	**LAPILLI TUFF** Chloritic, massive, undeformed, unaltered. Comprised of 5-15% coarse, angular heterolithic trachyte clasts up to 7 cm (avg. 2-3 cm) in a dark green, very fine grained chloritic ash matrix. Lapilli clasts vary from red-brown to grey to brown, generally fine grained to weakly porphyritic. Strong, pervasive magnetics. Unit is cut by 1% barren, white quartz ± calcite veinlets and displays a moderate hydrochloric acid reaction within matrix.										
		101.00 Unit becomes gradually coarser grained and increasingly more magnetic.										
		112.00 - 113.20 Dark green aphanitic mudstone with fine bedding laminations @ 35° tca.	8215	136.00	137.00	1.00					NIL	
			8216	137.00	138.00	1.00					0.01	
			8217	138.00	139.00	1.00					0.01	
		139.30 - 140.50 Weak wall rock alteration evident as narrow buff-brown bleaching halos, up to 1 cm, around 1-5 mm wide quartz veinlets.	8218	139.00	139.50	0.50			2		0.01	
			8219	139.50	140.00	0.50			5	70	0.04	
			8220	140.00	140.50	0.50			2-3		NIL	
		139.70 - 139.90 Fault @ 55° tca. Sericite ± quartz. Rubbly, broken section comprised of strongly foliated to schistose, sericitized tuff with fragmented and fractured clasts with interstitial sericite slips. 5% barren, narrow quartz veinlets.	8221	140.50	141.00	0.50					NIL	
			8222	141.00	142.00	1.00					0.05	
			8223	142.00	143.00	1.00					NIL	
			8224	143.00	144.00	1.00					0.01	
			8225	144.00	144.80	0.80					0.02	
		144.80 - 145.40 1 cm wide chlorite + calcite slip @ 15° tca.	8226	144.80	145.80	1.00					0.03	
			8227	145.80	146.80	1.00					0.01	
		146.90 - 147.30 Fault @ 45° tca. Sericite + quartz/calcite. Strong foliated to schistose, sericitic shear with strong wispy sericite within sheared fractured tuff. 5% late barren white to pink quartz + calcite veining.	8228	146.80	147.30	0.50	90		5	75	0.01	
		147.20 Ground fault gouge.										
			8229	147.30	147.80	0.50					NIL	
			8230	147.80	148.80	1.00					NIL	
		174.00 Narrow section of ash tuff showing well developed bedding @ 15° tca.										
		181.30 - 181.70 Fault @ 45° tca. Foliated lapilli tuff with strong, sharp, sericitic slips and 3% barren, white quartz ± albite veinlets up to 0.5 cm wide.										
		189.30 Fault @ 35° tca. 1 cm strong chloritic fault with gouge development and late quartz + calcite infilling.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

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INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
		205.00 - 208.10 Unit contains numerous, multi-generational, white barren quartz ± albite veins and stringers at all angles tca. Occasionally these veins display a buff-brown alteration halo, up to 2 cm wide, which frequently coalesce to give a patch-work bleaching appearance to the unit.	8231	205.00	206.00	1.00					0.01	
			8232	206.00	207.00	1.00					0.02	
			8233	207.00	208.00	1.00					0.03	
			8234	208.00	209.00	1.00					NIL	
			8235	209.00	210.00	1.00					0.01	
			8236	210.00	211.00	1.00					0.01	
			8237	211.00	212.00	1.00					0.01	
			8238	212.00	212.70	0.70					0.02	
		212.80 - 213.50 Shear zone @ 25° tca. Sericite + chlorite + quartz. Sheared, sericitized tuff with 25% silicification in the form of 5% barren, late, white quartz ± albite veinlets and as a buff-brown pale silicification with strong interstitial sericite slip. Wall rock shows foliated to fractured and brecciated lapilli tuff.	8239	212.70	213.60	0.90			25	50	0.01	
			8240	213.60	214.10	0.50					0.01	
			8241	214.10	215.00	0.90					NIL	
			8242	221.00	222.00	1.00					0.01	
			8243	222.00	223.00	1.00					0.01	
			8244	223.00	224.00	1.00					0.01	
			8245	224.00	225.00	1.00					0.01	
			8246	225.00	225.50	0.50					0.01	
			8247	225.50	226.00	0.50					NIL	
			8248	226.00	226.50	0.50					NIL	
		226.50 - 226.90 Fault-shear zone @ 60° tca. Sericite + chlorite + quartz ± pyrite. Strongly foliated, crenulated tuff with strong sericitic slip and shears developed. Crushed, mylonitic texture. Shear zone contains 3% quartz ± albite veins up to 2 cm wide, with sharp, black chloritic boundaries.	8249	226.50	227.00	0.50		Tr.	3	75	NIL	
		226.90 Narrow, 2 mm wide, pyritic veinlet with sub to euhedral pyrite.										
		227.00 - 227.60 Weakly deformed chloritic lapilli tuff with 2-3% quartz ± albite veining and sharp sericitic slips with buff-brown sericite alteration halos . Zone carries weak, spotty, sericite ± leucoxene and 0.5% fine disseminated pyrite in matrix. Trace fine grained pyrite, is also evident on sericitic hairline slips and fractures.	8250	227.00	227.60	0.60		0.5	2	15	NIL	
		227.60 Strong, tight, sericitic gouge, 3 mm wide, @ 65° tca.										
		227.60 - 228.10 Wall rock is moderately foliated and bleached, sericitic, and contains 1% quartz + chlorite veinlets and chloritic fracturing. No sulphides.	8251	227.60	228.10	0.50			1	50	NIL	
228.10	229.60	**GRAYWACKE**										
		Massive, light, grey-green, fine grained. Weakly deformed and sericitic. Deformation evident as small interstitial wispy sericite wrapped around weakly crushed quartz and lithic clasts. Pervasive, bleached, sericitic ground	8252	228.10	228.80	0.70			1-2	30	NIL	
			8253	228.80	229.60	0.80			1-2	30	NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		mass. Contains 1-2% barren, white quartz ± albite veinlets. Lower contacts, sharp and irregularly interfingered with mudstone.										
229.60	232.70	**MUDSTONE** Massive to finely bedded, dark green, chloritic, very fine grained to aphanitic. Irregular, anastomosing, wispy mudstone ± siltstone beds @ 25° tca. Contains minor intercalated graywacke. Lower contact is very irregular and interfingered.	8254	229.60	230.30	0.70					NIL	
			8255	230.30	231.00	0.70					NIL	
			8256	231.00	231.50	0.50					0.01	
			8257	231.50	232.20	0.70					NIL	
			8258	232.20	232.70	0.50					NIL	
232.70	240.20	**LAPILLI TUFF** Chloritic, massive, grey-green, undeformed. Comprised of 5-7% angular, heterolithic lapilli clasts from 0.5 -7 cm (avg. 1-2 cm) in a very fine grained chloritic matrix. Lapilli clasts are dark green to grey to brown, generally fine grained trachyte. Unit appears quite mafic, possibly augite-bearing. In places, appears to be sedimentary but contains no quartz or exotic lithics. Non-magnetic. Sharp lower bedding contact @ 35° tca.	8259	232.70	233.20	0.50					NIL	
			8260	233.20	233.70	0.50					0.01	
		233.70 - 234.20 Semi-massive, barren, white quartz ± albite veining up to 5 cm wide in light green sericitized tuff.	8261	233.70	234.25	0.55			25	40	0.01	
			8262	234.25	235.00	0.75					0.01	
		234.20 Strong, sharp, quartz + sericite slip.	8263	235.00	236.00	1.00					NIL	
			8264	236.00	237.00	1.00					0.01	
			8265	237.00	238.00	1.00					NIL	
			8266	238.00	239.00	1.00					NIL	
			8267	239.00	239.60	0.60					0.01	
			8268	239.60	240.20	0.60					0.01	
240.20	246.90	**GRAYWACKE** Massive, very fine grained, light grey-green. Undeformed, weak pervasive spotty sericitization. Very clean, well sorted, with minor, angular mudstone chips. Unit is cut by 2-3% multi-generational, barren white quartz ± albite veinlets, 0.5 mm to 1 cm wide, at all angles tca. Very minor, scattered trace pyrite is evident.	8269	240.20	241.00	0.80		Tr.	2	10	NIL	
			8270	241.00	242.00	1.00					0.02	
			8271	242.00	243.00	1.00					0.01	
			8272	243.00	244.00	1.00					NIL	
			8273	244.00	245.00	1.00					NIL	
			8274	245.00	246.00	1.00					0.01	
			8275	246.00	246.90	0.90		Tr.	2-3	10	NIL	
246.90	248.90	**LAPILLI TUFF** Massive, coarse, light grey tuff comprised of 10-15% angular, heterolithic lapilli clasts up to 10 cm (avg. 2-3 cm) in a light grey tuffaceous matrix. Lapilli clasts are dark green and buff-brown trachyte. Intercalated with these tuffaceous units are narrow, irregular, siltstone beds @ 25° tca. Non-magnetic. Sharp lower bedding contact @ 55° tca.	8276	246.90	247.50	0.60					NIL	
			8277	247.50	248.00	0.50					NIL	
			8278	248.00	248.90	0.90					0.01	

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INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
248.90	255.90	**MUDSTONE/SILTSTONE** Very finely laminated, light grey, very fine grained siltstone and aphanitic, dark green mudstone beds @ 50° tca. Bedding ranges from a few millimetres to 50 cm's wide. Very clean, undeformed, unaltered. Very sharp lower contact @ 65° tca.	8279	248.90	249.50	0.60					0.01	
			8280	249.50	250.00	0.50					NIL	
			8281	250.00	250.70	0.70					0.01	
			8282	250.70	251.20	0.50					NIL	
		251.25 - 251.35 Quartz + sericite + pyrite vein @ 70°. Sheared, fractured, white-grey quartz ± albite vein with interstitial wispy mudstone and pyritic sericite sutures up to 3 mm wide, 1-2% pyrite total. Vein material shows evidence of crushing and shearing to give a pseudo-mylonitic appearance.	8283	251.20	251.55	0.35		1	10	25	0.02	
		251.50 A 2 cm wide barren quartz ± albite vein with sharp, chloritic slip contacts.	8284	251.55	252.00	0.45					NIL	
			8285	252.00	253.00	1.00					NIL	
			8286	253.00	254.00	1.00					NIL	
			8287	254.00	255.00	1.00					0.01	
			8288	255.00	255.50	0.50					NIL	
			8289	255.50	256.00	0.50		Tr.	Tr.		0.03	
255.90	282.90	**GRAYWACKE** Massive, fine grained, grey-green, lithic graywacke. Very clean, well sorted, with minor scattered mudstone chips and very minor jasper. Very monotonous. Unit is cut by 1-2% fine quartz + chlorite veinlets which range from dark hairline cracks to 0.5 cm wide quartz + chlorite veinlets @ 15-65° tca. Graywacke carries trace disseminated, fine grained pyrite scattered throughout and trace pyrite on veins. Prominent chloritic vein fracture @ 10° tca with braided, anastomosing quartz + chlorite veinlets extending outward, which in places, brecciates the graywacke wall rock.	8290	256.00	257.00	1.00		Tr.	Tr.		0.02	
			8291	257.00	258.00	1.00		Tr.	Tr.		0.03	
			8292	258.00	259.00	1.00		Tr.	Tr.		NIL	
			8293	259.00	260.00	1.00		Tr.	Tr.		NIL	
			8294	260.00	260.50	0.50		Tr.	Tr.		0.02	
			8295	260.50	261.00	0.50		Tr.	3		0.02	
			8296	261.00	261.80	0.80		Tr.	Tr.		0.02	
			8297	261.80	262.30	0.50		0.5	1		0.03	
			8298	262.30	263.00	0.70		Tr.	1		NIL	
			8299	263.00	264.00	1.00		Tr.	1-2		0.03	
			8300	264.00	264.60	0.60		Tr.	1-2		0.01	
			8301	264.60	265.10	0.50					0.02	
			8302	265.10	266.00	0.90					0.05	
			8303	266.00	267.00	1.00					0.01	
			8304	267.00	268.00	1.00		Tr.	Tr.		0.02	
			8305	268.00	268.50	0.50					0.01	
		268.50 - 268.60 Barren white quartz + chlorite breccia vein @ 60° tca.	8306	268.50	269.10	0.60		Tr.	2		0.01	
		269.40 - 269.80 Irregular quartz/chlorite breccia vein with angular included wall rock clasts and quartz fragments.	8307	269.10	270.00	0.90		Tr.	2		0.02	
			8308	270.00	270.70	0.70		Tr.	Tr.		0.04	
		270.70 - 272.00 Deformed, sheared to foliated, sericitized graywacke @	8309	270.70	271.50	0.80		Tr.	3-5	35	0.01	

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INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
		30° tca, with 5-7% quartz and quartz + chlorite veining and breccia veinlets. Trace disseminated pyrite.	8310	271.50	272.10	0.60		Tr.	5-7	35	0.01	
			8311	272.10	273.00	0.90		Tr.	1		0.03	
			8312	273.00	273.50	0.50		Tr.	3-5		0.02	
			8313	273.50	274.50	1.00					0.04	
			8314	274.50	275.50	1.00					0.02	
		275.50 - 276.10 Shear zone @ 40° tca. Sericite + chlorite + quartz. Strongly foliated to sheared, crushed graywacke with strong sericite slips and irregular hairline chlorite fracture fillings. Strong, sharp, sericitic contacts. Below this shear, quartz + chlorite fracture veining decreases noticeably and gives way to barren quartz ± albite veinlets.	8315	275.50	276.10	0.60			2	50	0.13	
			8316	276.10	277.00	0.90					0.01	
			8317	277.00	277.50	0.50		Tr.	2		NIL	
			8318	277.50	278.00	0.50					NIL	
			8319	278.00	279.00	1.00					NIL	
			8320	279.00	280.00	1.00					NIL	
			8321	280.00	281.00	1.00					NIL	
			8322	281.00	282.00	1.00					0.01	
			8323	282.00	282.50	0.50					NIL	
		282.60 - 282.90 Barren, white-pink brecciated quartz vein with chloritic fracturing and irregular sericitic boundaries, marks lower contact of unit.	8324	282.50	283.00	0.50			25	10	NIL	
282.90	337.70	**ASH TUFF** Light grey-brown to green, chloritic ± hematitic, massive to poorly bedded @ 45° tca as marked by fine, ≤ 1 mm wide, magnetite lamellae. Unit is very nondescript, fine to very fine grained, strongly magnetic and may contain 1% fine grained chloritized amphibole in ground mass. Contains a few scattered lapilli clasts and is also in part intercalated with lapilli tuff horizons up to 1 m wide which are comprised of 5% grey-brown, angular trachyte clasts within a very fine grained ash matrix. Generally gradational contacts from ash to lapilli tuff. Lower contact gradational over 0.5 m.	8325	283.00	284.00	1.00					NIL	
			8326	305.00	306.00	1.00					0.01	
			8327	306.00	306.50	0.50					0.03	
			8328	306.50	306.90	0.40					NIL	
		306.90 - 307.20 Fault-shear zone @ 50° tca. Sericite + chlorite + quartz + calcite. Strongly foliated to sheared tuff with sharp, strong sericite + chlorite slip boundaries and interstitial slip planes. Intruded by 15% white-pink quartz + calcite veining.	8329	306.90	307.20	0.30					0.01	
			8330	307.20	308.00	0.80			15	25	0.02	
			8331	308.00	309.00	1.00					0.02	
		315.00 - 320.00 Unit takes on a notable purple hue due to a moderate, pervasive hematization. Unit also displays a moderately well developed bedding consisting of intercalated fine grained ash and coarser grained ash, to fine grained lapilli, tuff horizons from 2-3 cm to 75 cm wide. Bedding @ 50° tca.	8332	335.00	336.00	1.00					0.01	
			8333	336.00	337.00	1.00					0.03	
			8334	337.00	337.70	0.70					0.02	

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HOLE: AK-91-33

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
337.70	370.70	**LAPILLI TUFF** Chloritic, hematitic. Massive, dark green to purple-brown heterolithic lapilli tuff. Comprised of 15-20% angular to subrounded trachyte clasts up to 5 cm (avg. 1-2 cm) frequently tightly packed in a very fine grained ash matrix. Clasts vary from buff- grey, brown-red and black in colour and aphanitic to trachytoid textured. Strongly magnetic.	8335	337.70	338.50	0.80					0.02	
			8336	338.50	339.50	1.00					0.01	
			8337	339.50	340.50	1.00					0.02	
		340.50 - 350.00 Fractured, sericitized, weakly bleached lapilli tuff due to abundant strong fracturing @ 5° tca. Prominent fracture system at low core angles infilled with quartz + calcite veinlets and also 3% strong, sharp chloritic slips @ 10-15° tca. Due to this fracturing, the unit is weakly sericitic with pervasive spotty and wispy sericite development and a strong chloritic fracturing throughout. No visible mineralization.	8338	340.50	341.00	0.50		1		10	0.01	
			8339	341.00	341.50	0.50		2		10	0.01	
			8340	341.50	342.00	0.50					0.02	
			8341	342.00	343.00	1.00					NIL	
			8342	343.00	344.00	1.00		1		5-10	NIL	
			8343	344.00	344.50	0.50		1		5-10	0.02	
			8344	344.50	345.00	0.50		2		5-10	NIL	
			8345	345.00	345.60	0.60		2-3		5-10	0.01	
			8346	345.60	346.40	0.80		5-7		15	0.01	
			8347	346.40	347.00	0.60					0.01	
			8348	347.00	347.50	0.50					NIL	
			8349	347.50	348.00	0.50					0.05	
			8350	348.00	348.50	0.50		1			0.02	
			8351	348.50	349.00	0.50		1			0.02	
			8352	349.00	349.50	0.50		Tr.			0.02	
			8353	349.50	350.00	0.50					0.02	
		350.00 - 370.70 Massive, undeformed, unaltered, heterolithic, lapilli tuff with 1-5% angular trachyte clasts up to 5 cm. Strongly magnetic, with clasts being predominantly light grey and buff-brown in colour.	8354	350.00	351.00	1.00					0.02	
			8355	369.00	369.50	0.50					0.02	
			8356	369.50	370.00	0.50					0.02	
			8357	370.00	370.50	0.50					0.02	
			8358	370.50	371.00	0.50					0.01	
370.70	389.10	**LAPILLI TUFF** Massive, undeformed but pervasively sericitized ground mass. 3-5% angular pink-brown, trachyte lapilli clasts up to 7 cm (avg. 1-2 cm) in a very fine grained, light grey to buff coloured, sericitic, groundmass, which frequently contains 2-3% very fine magnetite, ≤ 0.5 mm, and 1-2%, mottled grey-green, fine grained augite. In places, a dirty mottled texture is developed where spots of the remnant chloritic groundmass are still evident. These chloritic spots have diffuse, shadowy borders, which fade into the surrounding buff-brown, sericitic groundmass. Otherwise unit is very massive.	8359	371.00	372.00	1.00					0.01	
			8360	372.00	373.00	1.00					0.04	
			8361	373.00	374.00	1.00					0.02	
			8362	374.00	375.00	1.00					NIL	
			8363	375.00	376.00	1.00					NIL	
			8364	376.00	377.00	1.00					0.01	
			8365	377.00	378.00	1.00					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		378.80 - 379.20 Breccia vein @ 20° tca. Angular, unaltered, wall rock breccia fragments up to 4 cm, in a pink-brown siliceous matrix, with sharp, hairline, chloritic boundaries. Barren, non-mineralized and cut by a few later pink quartz + calcite veinlets.	8366	378.00	378.80	0.80			65	Bx.	0.03	
			8367	378.80	379.25	0.45					0.16	
			8368	379.25	380.00	0.75					0.03	
			8369	380.00	381.00	1.00					NIL	
		389.00 - 389.10 Fault @ 60° tca. Chlorite + sericite + quartz + calcite. Sharp, tight, chlorite + sericite slips infilled with late, barren white-pink quartz ± calcite ± albite veining.										
389.10	398.00	**LAPILLI TUFF/SILTSTONE** Massive, deformed, unaltered, grey- green lapilli tuff with 5% angular trachyte clasts, grey to brown, up to 5 cm (avg. 0.5-1 cm) in a fine grained, lithic ash matrix which is intercalated with massive to poorly bedded, very fine grained, dark green siltstone. Bedding is very irregular and interfingered and ranges from a few cm's to 2-3 m and appears to be about 15-20° tca. Tuff horizons display patchy strong magnetics.											
398.00	411.00	**LAPILLI TUFF** Similar to above unit but this section contains no sediments. Massive, grey-green tuff comprised of 5% angular trachyte clasts, buff- brown to green, up to 5 cm in a very fine grained, grey-green, chloritic ash matrix which contains 5% chloritized, subhedral amphibole. Patchy strong magnetics.										
411.00	414.90	**SILTSTONE** Massive, light green, very fine grained to aphanitic siltstone and minor irregular mudstone. Very clean, massive, nondescript. Lower contact very sharp, non-deformed @ 30° tca. Contains a minor amount of hairline sericitic fractures which display dark green, chloritic halos up to 0.5 cm.										
414.90	423.80	**LAPILLI TUFF** Light grey-green, massive lapilli tuff. Undeformed, unaltered, comprised of 5% angular, light grey to green, trachyte clasts up to 4 cm (avg. 1 cm) with aphanitic to trachytoid textures. Matrix is a very fine grained chloritic ash with 2-3% chloritized amphibole evident. Patchy strong magnetics. Sharp irregular lower contact.	8370	421.00	422.00	1.00					0.02	
			8371	422.00	423.00	1.00					0.01	
			8372	423.00	423.80	0.80					0.01	
423.80	432.30	**SILTSTONE/MUDSTONE** Massive to poorly bedded. Light grey-green, very fine grained siltstone and dark green, aphanitic mudstone with very poorly developed, irregular, wispy bedding.	8373	423.80	424.50	0.70					0.02	
			8374	424.50	425.50	1.00					0.02	
			8375	425.50	426.50	1.00					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-33

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			8376	426.50	427.40	0.90					0.02	
		427.40 - 429.00 Shear zone @ 45° tca. Sericite + chlorite + quartz. Light yellow-green, ubiquitously sericitized siltstone with sharp, strong, sericite and chlorite slip planes @ 10-20 cm intervals. Interstitial silts contain irregular wispy sericitic fracturing.	8377	427.40	428.00	0.60			5-7	30	0.03	
			8378	428.00	428.50	0.50			3-5	60	0.01	
			8379	428.50	429.00	0.50			5	70	0.01	
		429.00 Fault gouge 1 cm wide. Section is cut by 3% late, barren, white quartz veinlets.	8380	429.00	430.00	1.00				10	0.01	
			8381	430.00	431.00	1.00					0.01	
			8382	431.00	431.50	0.50					0.02	
			8383	431.50	432.30	0.80					0.02	
432.30	454.75	**GRAYWACKE**										
		Massive, very fine grained, light grey-green, undeformed graywacke, (quartz arenite). Very clean, well sorted and comprised of 75-85% fine grained, rounded quartz clasts (≤ 1 mm) and 15-25% scattered lithics, including jasper and mudstone chips. Matrix is weakly sericitic with spotty to wispy sericite development. Unit is cut by 2% late white quartz veinlets, up to 1-2 cm wide, @ 5-45° tca. These veinlets are generally barren but the odd speck of coarse pyrite is visible. Unit also contains 0.5% of finely disseminated pyrite in matrix, generally scattered throughout the unit, possibly primary.	8384	432.30	433.00	0.70					0.02	
			8385	433.00	434.00	1.00					0.01	
			8386	434.00	435.00	1.00					0.02	
			8387	435.00	436.00	1.00					0.01	
			8388	436.00	437.00	1.00					0.02	
			8389	437.00	438.00	1.00					0.01	
			8390	438.00	439.00	1.00		Tr.	1-2		0.01	
			8391	439.00	440.00	1.00		Tr.	1-2		0.01	
			8392	440.00	441.00	1.00		Tr.	102		0.02	
			8393	441.00	442.00	1.00		Tr.	1-2		0.01	
		442.90 Fault @ 30° tca.	8394	442.00	442.90	0.90		Tr.	1-2		0.01	
		442.90 - 443.50 Barren, white, multiple quartz, flooding proximal to sharp, sericite. Zone contains 65% quartz stockworking within sericitic graywacke.	8395	442.90	443.50	0.60			65	25	0.01	
			8396	443.50	444.00	0.50		Tr.	2		NIL	
			8397	444.00	445.00	1.00		Tr.	Tr.		0.01	
			8398	445.00	446.00	1.00		Tr.	1		0.01	
			8399	446.00	447.00	1.00		Tr.	5		NIL	
			8400	447.00	448.00	1.00		Tr.	Tr.		0.01	
			8401	448.00	449.00	1.00		Tr.	Tr.		0.01	
			8402	449.00	450.00	1.00		Tr.	Tr.		0.01	
			8403	450.00	451.00	1.00		Tr.	Tr.		0.01	
			8404	451.00	452.00	1.00		Tr.			0.01	
			8405	452.00	453.00	1.00		Tr.			0.01	
			8406	453.00	454.00	1.00		Tr.			0.02	
			8407	454.00	454.75	0.75		Tr.			0.02	
	454.75	**END OF HOLE** Casing left in hole										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 30, 1991 - September 6, 1991	**EASTING**	8191.0
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10361.0
CLAIM No.	L 491662	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	331.3
STARTED	August 29, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 5, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	450.00
				UNITS	metres
				CORE SIZE	NQ

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

PURPOSE To test Amalgamated Kirkland Syenite

COMMENTS
"105" gold zone @ 205.5 - 208.9, 3.4 m.
"106" gold zone @ 246.0 - 251.0, 5.0 m.
"A56" gold zone @ 337.1 - 337.8, 0.7 m.
"107" gold zone @ 422.4 - 431.0, 8.6 m.

SIGNED BY (W. Benham)

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	3.00	**OVERBURDEN**
3.00	8.00	**ASH TUFF**
8.00	15.55	**LAPILLI TUFF**
15.55	22.80	**ASH TUFF**
22.80	40.00	**LAPILLI TUFF**
40.00	52.60	**ASH TUFF**
52.60	79.30	**LAPILLI TUFF**
79.30	91.30	**LAPILLI/BLOCK TUFF**
91.30	99.00	**ASH TUFF**
99.00	114.00	**LAPILLI TUFF** Monolithic
114.00	125.10	**LAPILLI TUFF**
125.10	161.60	**LAPILLI TUFF** Monolithic
161.60	177.00	**ASH TUFF**
177.00	179.60	**LAPILLI TUFF SILTSTONE**
179.60	182.30	**LAPILLI TUFF**
182.30	190.65	**TUFF/GRAYWACKE/MUDSTONE** Bleached, sericitic
190.65	231.40	**GRAYWACKE/MUDSTONE/TUFF** Brecciated, sericitic
231.40	247.00	**DIABASE**
247.00	263.00	**TRACHYTE/SYENITE PORPHYRY**
263.00	273.50	**MAFIC SYENITE**
273.50	281.00	**TRACHYTE/SYENITE PORPHYRY**
281.00	313.40	**MAFIC SYENITE**
313.40	318.10	**SYENITE PORPHYRY**
318.10	327.00	**TRACHYTE/SYENITE PORPHYRY**
327.00	345.00	**SYENITE PORPHYRY**
345.00	363.70	**LEUCITE-AUGITE TRACHYTE PORPHYRY**
363.70	368.00	**SYENITE PORPHYRY**
368.00	378.50	**LEUCITE-AUGITE TRACHYTE PORPHYRY**
378.50	450.00	**TRACHYTE/ASH TUFF**
		400.50 - 405.80 Syenite porphyry
		406.30 - 406.60 Syenite porphyry
		419.20 - 419.60 Syenite porphyry
		420.60 - 427.20 Syenite porphyry
		435.00 - 435.20 Syenite porphyry
	450.00	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
193.00	194.00	1.00	0.15
196.00	197.00	1.00	0.11
205.50	208.90	3.40	0.28
246.00	251.00	5.00	0.27
254.50	255.50	0.50	0.15
259.00	261.30	2.30	0.28
337.10	337.80	0.70	1.15
363.00	365.00	2.00	0.17
367.00	368.00	1.00	0.10
394.50	395.00	0.50	0.12
417.00	418.00	1.00	0.12
422.40	431.00	8.60	0.28
	including		
423.00	426.65	3.65	0.52
436.00	438.00	2.00	0.14

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	August 30, 1991 - September 6, 1991	**EASTING**	8191.0
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10361.0
CLAIM No.	L 491662	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	331.3
STARTED	August 29, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 5, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	450.00
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test Amalgamated Kirkland Syenite.

COMMENTS
"105" gold zone @ 205.5 - 208.9, 3.4 m.
"106" gold zone @ 246.0 - 251.0, 5.0 m.
"A56" gold zone @ 337.1 - 337.8, 0.7 m.
"107" gold zone @ 422.4 - 431.0, 8.6 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	341	55
3.7			55
30.0			53
61.0			51
91.0			49
122.0			47
153.0			48
183.0			49
214.0			48
244.0			48
275.0			47

Depth	Method	Azimuth	Dip
305.0			46
335.0			45
365.0			46
400.0			45
430.0			45

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	SAMPLE %Py	SAMPLE %QV	SAMPLE %Ser	ASSAYS Au, g/t	ASSAYS Au,Check
0.00	3.00	**OVERBURDEN**										
3.00	8.00	**ASH TUFF** Massive, fine to very fine grained, chloritic, dark green ash tuff with a weakly developed, fine bedding @ 25° tca. Very massive, nondescript and strongly magnetic. Lower contact gradational over 0.5 metre.										
8.00	15.55	**LAPILLI TUFF** Massive, dark grey-green. Comprised of 5% angular, light grey to brown, trachyte clasts (avg. 0.5-1 cm) in a very fine grained, grey-green, chloritic ash matrix. Strongly magnetic. Contains 1% late, barren quartz ± calcite veinlets throughout. 15.40 - 15.55 Fault @ 70° tca. Sericite + quartz + ankerite. Upper and lower contacts are sharp, tight, sericitic slips with minor quartz veining up to 0.5 cm wide. Interstitial to slips is sericitized, moderately foliated tuff with moderate ankerite staining.										
15.55	22.80	**ASH TUFF** Massive, dark green, fine to very fine grained ash, with < 1% scattered lapilli clasts. Non-bedded, strongly magnetic. Comprised of very fine grained, chloritic, trachyte ash tuff and may contain some small chloritized amphibole (augite) but difficult to distinguished due to grain size.										
22.80	40.00	**LAPILLI TUFF** Massive, undeformed, chloritic grey-green with variable heterolithic clasts. Quite variable with clasts ranging from 1-15% of unit. Clasts range from light grey to brown to red and range from 0.5 cm to 10 cm in size. Matrix is very fine grained, chloritized, lithic ash tuff. Strongly magnetic. 1% barren, quartz veinlets. Lower contact is gradational over 1 metre. 36.40 Fault @ 30° tca. Sericite + ankerite ± quartz. 1 cm wide, strong sericite slip with strong ankeritic staining and very minor quartz ± albite veinlets. 38.40 - 39.10 Strong chloritic + ankeritic fracture @ 5° tca. Broken, rubbly section.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
40.00	52.60	**ASH TUFF** Chlorite ± hematite. Massive, very fine grained, dark green to purple, due to patchy hematization. Strongly magnetic. Lower contact of unit is moderately sericitic and foliated @ 45° tca.											
			8408	41.20	41.80	0.60						0.02	
		41.90 - 42.20 Irregular sericitic fault with 5% pink quartz + calcite veinlets. Strong sericitic fracture @ 15° tca. Unit proximal to fault shows a weak to moderate, buff brown colour due to sericitization for up to 25 cm from fault zone.	8409	41.80	42.20	0.40			1	65		0.04	
		42.20 - 49.50 Unit is somewhat deformed and fractured, containing numerous strong hematitic fracturing slips and a weaker pervasive crackle type fracturing with chlorite + hematite infilling giving unit a pseudo-brecciated "crack and seal" texture. Zone is also cut by 5% white-pink, quartz ± calcite veinlets, up to 1 cm wide, at all core angles.	8410	42.20	43.00	0.80			1			0.01	
			8411	43.00	44.00	1.00			2	5		NIL	
			8412	44.00	44.50	0.50			2	5		NIL	
			8413	44.50	45.00	0.50			Tr.	15		NIL	
			8414	45.00	46.00	1.00			1-2	5		NIL	
			8415	46.00	47.00	1.00			2-3	Tr.		NIL	
			8416	47.00	47.50	0.50			Tr.	Tr.		0.01	
		47.60 - 48.00 Silicified section of hematitic tuff with 1% quartz veinlets and a pervasively silicified and hematized matrix.	8417	47.50	48.00	0.50			1	Tr.	Sil.	NIL	
			8418	48.00	48.50	0.50			Tr.	Tr.		NIL	
			8419	48.50	49.00	0.50			Tr.	Tr.		NIL	
			8420	49.00	49.50	0.50			1-2	15		0.01	
			8421	49.50	50.00	0.50						NIL	
52.60	79.30	**LAPILLI TUFF** Chlorite ± hematite. Massive, dark green, heterolithic lapilli tuff with purple hues due to patchy, irregular hematization. Predominant, 60%, clast type, is red-brown, fine grained to porphyritic trachyte with lesser amounts of dark green, grey, and brown clasts. Clasts are angular to sub-rounded, poorly sorted and range from 0.5 cm to 10 cm. (avg. 2 cm). Matrix is fine grained, heterolithic ash. Strongly magnetic. Lower contact of unit is somewhat gradational and arbitrary.											
		57.30 - 57.45 Quartz + albite vein with internal chloritic fracturing and brecciation. Milk-white, barren, late vein @ 45° tca.											
		67.50 - 70.50 Unit takes on a purple-green patchwork due to irregular, weak to moderate sericite alteration proximal to small quartz veinlets and tight sericitic slips within a predominantly hematitic matrix.											
		69.85 Strongly foliated to schistose zone, 10 cm wide, with sharp chlorite + sericite slips and late quartz veinlets in adjacent wall rock. Shearing @ 52° tca.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		71.25 - 71.30 Fault @ 70° tca. 1 cm wide, sericite + chlorite + quartz + wall rock breccia veinlet, with angular quartz + wall rock fragments, to 3 mm, in a dark chlorite + sericite groundmass. Sharp, strong, mud contacts.										
		71.40 - 71.55 Diabase. Massive, aphanitic, medium green diabase with sharp and somewhat irregular intrusive contacts @ 65° tca.										
		74.70 - 75.20 Broken rubbly ground due to strong, irregular, chloritic, fracture slip @ 5° tca.										
		78.90 - 79.30 Fault @ 10° tca. Chlorite + sericite + quartz. Sharp, strong, chloritic slips infilled by a 1 cm wide, white-pink quartz vein, which is internally fractured with wispy sericite. Non-mineralized.										
79.30	91.30	**MONOLITHIC LAPILLI/BLOCK TUFF** Chlorite + hematite. Previous heterolithic tuff, grades to more tightly packed, predominantly monolithic tuff. Matrix is dark green to black-red and is comprised of 60% fine, red, sub-rounded, syenite/trachyte clasts, up to 3 mm, in an aphanitic groundmass. Clasts are scattered to tightly packed, 25% of unit is dark red, syenite and trachyte, very fine grained to trachytoid fragments, up to 7 cm (avg. 2-3 cm), and are angular to sub-rounded. These red trachyte clasts constitute ≈85-90% of the clasts. Very strongly magnetic, massive, hard. 1-2% late barren, white quartz veinlets throughout.	8422	80.00	81.00	1.00				0.01	
			8423	81.00	82.00	1.00					NIL	
		82.20 Fault @ 25° tca. Sericite + calcite ± quartz. 3 mm wide, strong sericite slip with barren pink calcite ± quartz veining.	8424	82.00	82.55	0.55					NIL	
		82.60 - 82.90 Fault @ 15° tca. Strong, tight, 2-5 mm, chloritic mud slip with fracturing and shearing evident up to 3 cm into wall rock, which is weakly silicified.	8425	82.55	83.00	0.45		Tr.		Sil.	NIL	
			8426	83.00	83.50	0.50					NIL	
			8427	83.50	84.00	0.50					NIL	
			8428	84.00	84.50	0.50					NIL	
			8429	84.50	85.00	0.50		1-2	10		NIL	
		85.10 - 87.00 Irregular, strong, anastomosing chlorite ± quartz fractured, 1-4 mm wide, sub-parallel tca. Veinlet shows evidence of internal fracturing, weak brecciation and is cut by later, small scale, fault fractures. Unit proximal to vein is fractured, chlorite filled and weakly deformed with patchy sericite alteration.	8430	85.00	85.70	0.70		1	15		NIL	
			8431	85.70	86.20	0.50		1-2	15		0.01	
			8432	86.20	87.00	0.80		1-2	10		NIL	
			8433	87.00	88.00	1.00					NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		89.80 - 91.30 Diabase dyke. Massive, dark green, very fine grained to aphanitic. Sharp, chilled intrusive contacts @ 45° tca. Weak, patchy magnetics. Strong internal chloritic joint/fracture set.										
91.30	99.00	**ASH TUFF** Chlorite ± hematite. Lower contact gradational over 1 metre. 91.30 - 92.20 Unit is dark red-purple, strongly hematized, very fine grained to aphanitic ash tuff which is fractured and partly intruded by narrow fingers of diabase and late white to pink quartz veinlets. 92.20 Fault @ 25° tca. Chlorite ± quartz. 3 mm wide, strong chloritic slip with small fractured podiform quartz veining. 92.20 - 99.00 Unit grades to a less hematitic, dark green, massive, fine grained ash tuff. Very homogeneous monotonous and strongly magnetic. 2% barren white quartz veins.										
99.00	114.00	**MONOLITHIC LAPILLI TUFF** Chlorite + hematite. Massive, dark green to black, very fine grained ash matrix comprised of 40-50% red syenite + trachyte fragments, to 2-3 mm, in a dark aphanitic groundmass. Lapilli clasts are dark red, fine grained syenite + trachyte, from 0.5 cm to 4 cm, angular to sub-rounded, frequently fractured. Clasts range from 5-20% of unit. Very strongly magnetic, hard, competent. Often intercalated with narrow ash tuff horizons (≤ 1-2 m) of same composition. Lower contact gradational over 1 metre. 112.95 - 113.15 Quartz ± albite breccia vein with angular, included wall rock fragments up to 2 cm. Barren, non-mineralized.										
114.00	125.10	**LAPILLI TUFF** Massive, grey-green heterolithic, chloritic lapilli tuff comprised of 5-10% angular heterolithic lapilli clasts from 0.5 -3 cm (avg. 1 cm) in a very fine chloritic ash matrix. Clasts vary from light grey to brown to dark green. Strongly magnetic. Unit shows evidence of patchy, brittle deformation in the form of irregular wispy sericite and abundant irregular multiple quartz veinlets associated with the strong break @ 125.0 m.	8434	117.00	118.00	1.00		Tr.			NIL	
			8435	118.00	119.00	1.00		Tr.			NIL	
			8436	119.00	120.00	1.00		Tr.			NIL	
			8437	120.00	121.00	1.00		Tr.			NIL	
			8438	121.00	122.00	1.00		Tr.			NIL	
			8439	122.00	123.00	1.00		Tr.			NIL	
			8440	123.00	123.50	0.50		2-3			NIL	
			8441	123.50	124.00	0.50		Tr.			0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			8442	124.00	124.50	0.50			2-3	5		NIL	
			8443	124.50	125.00	0.50						NIL	
		125.00 - 125.10 Fault @ 35° tca. Chlorite + quartz + calcite. Strong chloritic mud gouge walls with internal fractured and boudinaged, white to pink, quartz + calcite veinlets within a dark, chloritic groundmass. Non-mineralized.	8444	125.00	125.50	0.50			10	10		0.01	
125.10	161.60	**MONOLITHIC LAPILLI TUFF** Chlorite + hematite. Massive, undeformed. Comprised of 5-7% dark red, trachyte + syenite clasts, up to 5 cm, (avg. 2 cm) in a very fine grained, dark green-black, trachytic ash matrix. Clasts are angular to sub-rounded, very fine grained to porphyritic, with irregular distribution. Strongly magnetic, hard, competent and cut by 1% late, barren quartz ± albite veinlets up to 2 cm wide. Unit is in part intercalated with minor, narrow ash tuff horizons (≤ 1 m) of same composition and displaying gradational contacts. Lower contact marked by a fault @ 57° tca.	8445	125.50	126.00	0.50			2-3			NIL	
			8446	126.00	127.00	1.00			2			NIL	
			8447	127.00	128.00	1.00						NIL	
			8448	161.00	161.40	0.40			Tr.			NIL	
		161.45 - 161.60 Fault is marked by sharp, tight, chloritic slips with interstitial, open vuggy, pink quartz + calcite veining. Drusy quartz + calcite in cavities.	8449	161.40	161.70	0.30			15		Cal.	NIL	
161.60	177.00	**ASH TUFF** Chloritic, fine to very fine grained, dark grey-green, massive to poorly bedded @ 55° tca. Bedding defined by faint, somewhat irregular (1-3 mm) magnetite beds. Unit is comprised of very fine grained lithic ash, where visible, and contains 2% black, chloritized spots (amphibole?), up to 1 mm in size, in a quite soft, aphanitic groundmass. Patchy, strong magnetics.	8450	161.70	162.50	0.80						NIL	
			8451	162.50	163.00	0.50			2			NIL	
			8452	163.00	163.50	0.50			1			NIL	
			8453	163.50	164.00	0.50						0.01	
			8454	164.00	165.00	1.00						0.01	
			8455	165.00	166.00	1.00						0.01	
			8456	166.00	166.70	0.70						0.01	
		166.70 - 167.20 Fault zone @ 45° tca. Sericite + quartz + calcite ± specularite. Upper contact marked by a 2 cm wide, quartz + chlorite breccia vein, with angular quartz fragments, to 0.5 cm, in a very fine grained chloritic matrix. Lower contact is a sharp, chlorite + specularite slip with 0.5 cm wide quartz veinlet and irregular, red-brown chlorite + specularite veinlets. Interstitial to these slips, unit is buff-brown, sericitized, massive to weakly foliated, with 2% barren, ≤ 1 mm wide, quartz ± chlorite veinlets.	8457	166.70	167.25	0.55			2-3	60		0.02	
			8458	167.25	168.00	0.75			1			NIL	
			8459	168.00	169.00	1.00			Tr.			0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		169.00 - 172.00 Unit is cut by 1-5% barren, white, irregular quartz and quartz breccia veining with angular included wall rock clasts and weak patchy sericite alteration halos.	8460	169.00	170.00	1.00			4		0.01	
			8461	170.00	171.00	1.00			2		0.01	
			8462	171.00	171.50	0.50			1		NIL	
		171.75 - 171.90 Fault @ 60° tca. Sericite + chlorite + quartz. Strongly deformed, crushed tuff with sharp, tight, chloritic slip walls and interstitial fractured and brecciated quartz veinlets.	8463	171.50	172.00	0.50			1-2	65	NIL	
		172.00 - 177.00 Occasional, dispersed lapilli clasts and minor lapilli horizons, up to 30 cm wide, scattered through predominantly ash tuff.	8464	172.00	173.00	1.00			Tr.		NIL	
			8465	173.00	174.00	1.00			Tr.		NIL	
			8466	174.00	174.50	0.50			1		NIL	
			8467	174.50	175.00	0.50			1		NIL	
			8468	175.00	176.00	1.00					NIL	
			8469	176.00	176.90	0.90					NIL	
177.00	179.60	**LAPILLI TUFF/SILTSTONE** Dark grey-green, massive lapilli tuff with 3% angular buff to grey lapilli clasts in a very fine grained, chloritic ash matrix. These tuff horizons are intimately intercalated and interfingered with massive to finely bedded, very fine grained siltstone horizons up to 75 cm wide. Bedding ranges from 15-45° tca. Contacts are sharp, irregular and interfingered. Tuffs are moderately magnetic, while siltstones are non-magnetic. Upper contact is sheared and filled by a 3 cm barren quartz ± albite vein. Lower contact sharp and somewhat irregular @ 40° tca.	8470	176.90	177.50	0.60			2	10-15 Hem.	NIL	
			8471	177.50	178.00	0.50			Tr.	Tr.	NIL	
			8472	178.00	179.00	1.00					0.01	
			8473	179.00	179.60	0.60					0.02	
179.60	182.30	**LAPILLI TUFF** Massive, coarse tuff comprised of 15-20%, subangular to subrounded, heterolithic clasts, up to 5 cm, in a dark green, chloritic ash matrix. Clasts are poorly sorted and vary from light brown to buff to dark green, generally very fine grained to weakly porphyritic. Unit appears conglomeratic but contains no visible quartz, jasper, etc. Patchy strong magnetics. Lower contact is sheared.	8474	179.60	180.30	0.70					0.01	
			8475	180.30	181.30	1.00					0.01	
			8476	181.30	182.30	1.00			Tr.	Tr.	0.01	
182.30	190.65	**TUFF/GRAYWACKE/MUDSTONE** Massive, dirty green-brown mottled unit comprised of 3% fine black chloritic laths and masses or spots, up to 3 mm, (avg. ≤ 1 mm) which appear to be chloritized amphibole. These crystals are floating in a "blitzed", aphanitic, sericitized groundmass of unknown origin. In places, spots coalesce so as to give the appearance of corroded lapilli clasts. Non-magnetic. Lower contact marked by irregular mudstone bed.											

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		182.30 - 182.50 Shear zone @ 60° tca. Sericite + quartz + chlorite ± hematite. Strongly deformed, crushed, crenulated, mylonitized fault zone with 75-80%, wispy sericite. 10% white, fractured and brecciated quartz + chlorite veinlets and irregular chlorite + hematite fracturing.	8477	182.30	182.80	0.50		Tr.	2	50		0.01	
			8478	182.80	183.50	0.70			1	30-40		0.01	
			8479	183.50	184.00	0.50			1-2	40		0.03	
			8480	184.00	185.00	1.00						0.04	
			8481	185.00	186.00	1.00						0.01	
			8482	186.00	186.85	0.85						0.01	
		186.80 - 188.80 Definitely sedimentary, with intercalated graywacke + mudstone and notable quartz + jasper clasts evident.	8483	186.85	187.80	0.95			1	35		NIL	
		188.80 - 190.65 Spotted unit with 5% fine, black laths and spots in an aphanitic, dirty green-brown, sericitic groundmass.	8484	187.80	188.80	1.00			1-2	35		0.01	
			8485	188.80	189.80	1.00			Tr.	50		0.03	
			8486	189.80	190.65	0.85			Tr.	50		NIL	
190.65	231.40	**GRAYWACKE/MUDSTONE** Deformed interbedded massive, fine grained, lithic graywacke and aphanitic mudstone. Units are pervasively, weakly to moderately, sericitic with 5-15%, wispy and spotty sericite development. Units are ubiquitously deformed, brittle and display the following:	8487	190.65	191.50	0.85			1	15		0.01	
			8488	191.50	192.00	0.50			Tr.			0.07	
			8489	192.00	193.00	1.00			2			0.05	
			8490	193.00	194.00	1.00			Tr.			0.15	
		1. "Crack and seal" texture, chloritic, hairline cracks and tight quartz + chlorite veinlets cutting weakly sericitic graywacke.	8491	194.00	195.00	1.00			1			0.03	
			8492	195.00	196.00	1.00			1			0.03	
			8493	196.00	197.00	1.00			1			0.11	
		2. Increasing to pseudo-breccia with in situ, non-rotational fracturing of graywacke infilled with quartz, chlorite or both.	8494	197.00	198.00	1.00			1			0.08	
			8495	198.00	199.00	1.00			1			0.02	
			8496	199.00	200.00	1.00			1			0.02	
		3. Fragmented and brecciated graywacke with disrupted angular wall rock clasts, up to 3 cm, within a dark chlorite ± quartz matrix up to 35 cm wide.	8497	200.00	201.00	1.00			1			0.01	
			8498	201.00	201.50	0.50			Tr.			0.01	
			8499	201.50	202.00	0.50		Tr.	1			0.08	
		4. Irregular, angular, fragmented and brecciated mudstone horizons and beds. Very minor, scattered, disseminated pyrite evident. Quartz ± chlorite breccia vein material typically non-mineralized. Occasional dark green-purple hematite ± chlorite ± quartz veinlets are evident.	8500	202.00	203.00	1.00			Tr.			0.06	
			8501	203.00	203.50	0.50			2			0.08	
			8502	203.50	204.00	0.50			Tr.			0.09	
			8503	204.00	205.00	1.00			Tr.			0.04	
			8504	205.00	205.50	0.50			Tr.			0.03	
			8505	205.50	206.05	0.55			3		Sil.	0.30	
		206.00 A fairly strong, tight, chloritic mud slip with 15 cm chloritic breccia with angular mudstone inclusions. Weakly silicified.	8506	206.05	207.00	0.95			2			0.02	
			8507	207.00	208.00	1.00			1			0.37	
			8508	208.00	208.90	0.90					Chl.	0.45	
		208.90 - 212.40 Ash tuff. Massive, very fine to fine grained, dark green, chloritic ash with < 1% scattered lapilli clasts. Virtually undeformed with very minor late quartz veining. Ubiquitous hydrochloric acid reaction. Lower contact gradational over 10 cm.	8509	208.90	209.50	0.60						0.02	
			8510	209.50	210.00	0.50						0.01	
			8511	210.00	211.00	1.00						0.01	
			8512	211.00	212.00	1.00						0.01	
			8513	212.00	212.50	0.50						0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		212.40 - 225.00 Unit is predominantly aphanitic mudstone with very fine, irregular bedding from 1 mm to 3 cm wide. Beds are frequently disrupted, fractured and brecciated by irregular chlorite infilling and show small scale folding, crenulation and faulting. Mudstones occasionally are buff-brown with a cherty appearance but are very soft and sericitic.	8514	212.50	213.00	0.50					0.02	
			8515	213.00	214.00	1.00					0.01	
			8516	214.00	215.00	1.00					0.03	
			8517	215.00	216.00	1.00					0.02	
			8518	216.00	217.00	1.00					NIL	
			8519	217.00	218.00	1.00					0.01	
			8520	218.00	219.00	1.00					0.02	
			8521	219.00	220.00	1.00					0.02	
			8522	220.00	221.00	1.00					0.01	
			8523	221.00	222.00	1.00		Tr.			0.01	
			8524	222.00	223.00	1.00					0.02	
			8525	223.00	224.00	1.00					0.02	
			8526	224.00	225.00	1.00				Sil.	0.01	
		225.00 - 225.60 Irregularly bedded, brown, aphanitic mudstone and dark green, intercalated siltstone. Mudstones are finely laminated and cherty in appearance. Section is pervasively silicified and very hard.	8527	225.00	225.60	0.60				Sil.	0.02	
		225.60 - 230.20 Deformed, silicified graywacke and conglomerate. Section is dark blue-green with 2-3%, polymictic pebbles, up to 6 cm wide, in a very fine grained altered matrix. Both pebbles and matrix show strong internal fracturing and "crack and seal" texture. Unit varies from quite soft and chloritic to very hard due to patchy silicification and contact alteration. Section carries traces of fine grained pyrite frequently on hairline sutures.	8528	225.60	226.10	0.50		Tr.	Tr.	Sil.	NIL	
			8529	226.10	227.00	0.90		Tr.	Tr.	Sil.	0.01	
			8530	227.00	227.50	0.50		Tr.	Tr.	Sil.	NIL	
			8531	227.50	228.00	0.50		Tr.	Tr.	Sil.	NIL	
			8532	228.00	228.50	0.50		Tr.	Tr.	Sil.	NIL	
			8533	228.50	229.00	0.50		Tr.	Tr.	Sil.	NIL	
			8534	229.00	229.50	0.50		Tr.	Tr.	Sil.	NIL	
			8535	229.50	230.20	0.70		Tr.	Tr.	Sil.	NIL	
		230.20 - 231.40 Contact zone. Silicified and hematitic. Dirty, red-brown and blue-green, finely laminated @ 50° tca. Section, which has been pervasively silicified and hematized, appears to be very fine grained siltstone and mudstone which appear to be partially syenitized and silicified. Strong internal, hairline fracturing infilled by quartz, chlorite and specularite. Very minor pyrite on fracture planes. Sections show evidence of strong internal brecciation with angular, red-brown, silicified mudstone clasts, up to 3 cm, in a very fine grained, dark, silicified matrix. Within matrix are patchy, irregular, chloritic wisps and veinlets which are partially silicified.	8536	230.20	230.80	0.60		Tr.	Tr.	Sil.	0.02	
			8537	230.80	231.40	0.60		Tr.	Tr.	Sil.	0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
231.40	247.00	**DIABASE/GABBRO** Mafic intrusive comprised of an 80-90%, dark green, fine grained, chloritic matrix, which frequently display subhedral augite phenocrysts to 2 mm. Interstitial to this mafic groundmass are small, irregular, red-brown and yellow-green spots comprised of altered K-spar and sericite ± epidote. Unit also contains, 1-2% subhedral magnetite crystals, up to 1 mm. Strongly magnetic. Unit is very massive and cut by numerous, 1-2%, hairline fractures and tight slips which display such assemblages as chlorite + specularite + calcite and chlorite + specularite + sericite ± epidote ± calcite. Occasionally, small light blue veinlets are evident on fractures and appear to be calcite ± quartz and possibly sodic amphibole. Lower contact is gradational over ≈ 1 metre. Locally, this mafic intrusive resembles a mafic syenite but it is probably an altered gabbroic diabase.										
		231.40 - 232.00 Very fine grained, dark green, with 1-2 mm, very fine subhedral augite phenocrysts (2%) in an aphanitic, mafic groundmass which is quite soft. Grades to massive, fine to medium grained, mafic intrusive, typically dark green with patchy red-green matrix.	8538	231.40	232.00	0.60					NIL	
			8539	232.00	233.00	1.00					NIL	
			8540	233.00	234.00	1.00					NIL	
			8541	234.00	235.00	1.00					NIL	
			8542	235.00	236.00	1.00					0.01	
			8543	236.00	237.00	1.00					NIL	
			8544	244.00	245.00	1.00					NIL	
			8545	245.00	246.00	1.00					NIL	
			8546	246.00	247.00	1.00					0.36	
247.00	263.00	**SYENITE/SYENITE PORPHYRY (TRACHYTE FLOW?)** Massive, red-brown to brick red, very fine grained to porphyritic with up to 10%, sub to euhedral, white plagioclase phenocrysts, up to 2-3 mm, in a very fine to aphanitic syenitic groundmass. May be a trachyte flow. Unit typically contains numerous, irregular, hairline chloritic cracks and sharp chloritic fractures which frequently causes unit to be quite rubbly in core and gives it a "crack and seal" texture in places. Very minor, late barren, white quartz veinlets.	8547	247.00	247.50	0.50					0.17	
			8548	247.50	248.00	0.50					0.04	
			8549	248.00	248.50	0.50					0.06	
		248.50 - 257.90 Very fine grained, weakly porphyritic, dark red-brown, hematitic. Contains strong "crack and seal" to pseudo-brecciated texture with interstitial chlorite + specularite ± quartz infilling. A few massive, specularite + hematite veinlets evident up to 1 cm wide. Very minor, trace pyrite on chloritic fractures.	8550	248.50	249.00	0.50					0.18	
			8551	249.00	249.50	0.50					0.10	
			8552	249.50	250.00	0.50					0.08	
			8553	250.00	251.00	1.00					0.66	
			8554	251.00	252.00	1.00					0.03	
			8555	252.00	252.50	0.50		Tr.			0.05	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		252.50 A 1-2 cm wide, blocky fault of chlorite + calcite and brecciated wall rock fragments.	8556	252.50	253.00	0.50					0.02	
		253.50 - 257.90 Rubbly broken section due to strong chloritic fracturing with 80-85% recovery.	8557	253.00	253.50	0.50					0.02	
			8558	253.50	254.50	1.00	85				0.01	
			8559	254.50	255.00	0.50	85				0.15	
			8560	255.00	256.00	1.00	80				NIL	
			8561	256.00	257.00	1.00	80				0.03	
			8562	257.00	257.90	0.90	85				0.03	
			8563	257.90	258.50	0.60					0.02	
			8564	258.50	259.00	0.50					NIL	
			8565	259.00	259.50	0.50					0.21	
			8566	259.50	260.50	1.00					0.33	
			8567	260.50	261.30	0.80					0.26	
		261.30 - 261.50 Syenite is brecciated with 20%, red syenite fragments, to 0.75 cm, in a fine, black, chloritic groundmass.	8568	261.30	262.00	0.70		Tr.	Tr.		0.03	
		261.50 - 261.55 Fault @ 75° tca. Chlorite + quartz + calcite. Sharp, strong chlorite + mud gouge fault infilled with quartz + calcite veinlets.										
		261.55 - 262.00 Syenite is buff-brown, sericitic with pseudo-brecciated texture and carries 0.5% disseminated pyrite.										
		262.00 - 263.00 Massive, undeformed, very fine grained, grey-green with sharp intrusive contacts. Possibly tuffaceous. Strongly magnetic. Contains 0.5% finely disseminated pyrite.	8569	262.00	263.00	1.00		0.5			NIL	
263.00	273.50	**MAFIC SYENITE** Massive, dark green-red to red-brown and quite variable from dark augite porphyry to red feldspar porphyry to fine grained equivalents of both. Strongly magnetic.										
		263.00 - 264.00 Strongly fractured, bleached, light brown and silicified. Contains 10% chloritic ± specularite filled fracturing "crack and seal" texture. Augite phenocrysts in groundmass are pale green, altered and subhedral, up to 3 mm.	8570	263.00	263.50	0.50		Tr.		Spec / Sil	NIL	
			8571	263.50	264.00	0.50		Tr.		Spec / Sil	NIL	
		263.25 Strong, tight, chloritic fault @ 50° tca.										
		264.00 Syenite is a dirty red-brown to green with irregular mottled appearance due to patchy hematization and variability of intrusive from more felsic to mafic. Complex, composite syenitic stock.	8572	264.00	264.50	0.50		Tr.		Spec / Sil	NIL	
			8573	264.50	265.00	0.50		Tr.			NIL	
			8574	265.00	266.00	1.00		Tr.			NIL	
			8575	266.00	267.00	1.00		Tr.			0.01	
			8576	267.00	268.00	1.00		Tr.			NIL	
			8577	268.00	269.00	1.00		Tr.			0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			8578	269.00	270.00	1.00		Tr.				0.01	
			8579	270.00	271.00	1.00		Tr.				NIL	
			8580	271.00	272.00	1.00		Tr.				0.01	
			8581	272.00	273.00	1.00		Tr.	1-2		Bl. / Sil	NIL	
			8582	273.00	273.50	0.50						NIL	
273.50	281.00	**TRACHYTE/SYENITE PORPHYRY** Hematitic trachyte flow. Dark red-brown, massive with 5-10%, sub to euhedral plagioclase phenocrysts, up to 6 mm, in a dark red, aphanitic, syenitic groundmass. Within groundmass are 3-5%, irregular, corroded augite and chlorite masses. Unit is strongly magnetic. Contains abundant chlorite ± specularite fracture fillings. Lower contact gradational over 1 metre marked by gradual decline in red, felsic syenite and plagioclase phenocrysts and increase in augite and mafic groundmass.	8583	273.50	274.00	0.50						0.01	
281.00	313.40	**MAFIC SYENITE** Massive, dark red-black to green. Contains 3-5%, pale green, augite phenocrysts, up to 3 mm, and 1-2% plagioclase phenocrysts, 1-3 mm, in a very fine grained, dark red-black, syenitic groundmass. Trace spotty pyrite on chlorite fractures. Strongly magnetic with 1% chlorite + specularite fracture fillings. Dirty heterogeneous syenite + trachyte. Difficult to describe the variability within these intrusives or flows as changes can occur very abruptly or gradationally over 1-2 m. Mafic to felsic and porphyritic to aphanitic syenite + trachyte. These mafic syenites are quite different in appearance than those in Kirkland Lake Stock (i.e. Macassa) and may in fact represent trachyte volcanism. These rocks tend to be more coarsely porphyritic with rapid textural changes and lack the characteristic felsic "ribs" usually associated with the augite syenites. More felsic varieties of syenite porphyry are very similar to the magnetic, porphyritic trachyte on the Rand property.	8584	284.00	285.00	1.00		Tr.				NIL	
			8585	285.00	286.00	1.00		Tr.				NIL	
			8586	286.00	287.00	1.00		Tr.				NIL	
			8587	287.00	287.80	0.80		Tr.			Spec.	0.04	
			8588	287.80	288.50	0.70						0.01	
			8589	288.50	289.00	0.50						0.01	
			8590	289.00	290.00	1.00						0.02	
			8591	290.00	291.00	1.00						NIL	
			8592	291.00	292.00	1.00						NIL	
			8593	292.00	293.00	1.00						NIL	
			8594	293.00	294.00	1.00						0.02	
		287.25 - 287.30 Fault @25° tca. Chlorite + sericite + quartz + calcite. Tight, chloritic slips with interstitial, fractured, brecciated quartz + calcite veinlets. Adjacent wall rock is buff-brown, fractured and siliceous with 1-2% specularite veinlets, up to 1 cm, down to 287.80.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		294.10 - 294.25 Fault @ 50° tca. Quartz + chlorite ± calcite. Strong, sharp, chloritic fault boundaries infilled by white-pink, quartz ± albite ± calcite veining. Barren with bleached, sericitic, wall rock alteration.	8595	294.00	294.50	0.50			2	10	0.06	
			8596	294.50	295.00	0.50					NIL	
		295.30 Fault @ 25° tca. 1 cm wide, quartz + calcite on chloritic slips.	8597	295.00	295.50	0.50			1		0.03	
			8598	295.50	296.00	0.50					NIL	
			8599	306.00	307.00	1.00					0.02	
			8600	307.00	308.00	1.00					NIL	
			8601	308.00	309.00	1.00			Tr.		NIL	
			8602	309.00	310.00	1.00					NIL	
		310.00 - 310.50 Fractured "crack and seal" textured syenite cut by 1-2%, sharp, strong chloritic slips and quartz + chlorite breccia veinlets.	8603	310.00	310.50	0.50			1		NIL	
			8604	310.50	311.00	0.50					0.02	
											NIL	
			8605	311.00	311.50	0.50					0.03	
		311.80 - 312.05 Fault @ 50° tca. Chlorite ± sericite ± quartz. Strong tight mud gouge, 5 mm wide, @ 311.80. Lower contact is a hairline chloritic slip. Interstitial material is foliated to pseudo-brecciated with chloritic, "crack and seal" texture.	8606	311.50	312.05	0.55		Tr.	Tr.		NIL	
		312.05 - 312.85 Unit becomes increasingly bleached, yellow-brown and contains 3% chlorite ± quartz ± specularite fracture fillings. Weak, pseudo-brecciation. Zone carries trace pyrite on fracture planes.	8607	312.05	312.50	0.45		Tr.	Tr.		NIL	
		312.85 - 313.40 Fault breccia contact. Pseudo-brecciated to brecciated zone with strong chlorite slip contacts @ 70° tca. Interstitial to slips, unit contains strong internal fracturing to brecciation with angular syenite fragments in a fine chloritic groundmass.	8608	312.50	313.00	0.50		0.5	Tr.		NIL	
			8609	313.00	313.50	0.50		Tr.	Tr.			
313.40	318.10	**SYENITE PORPHYRY** Hematitic, massive, brick-red syenite with 7-10% fine, subhedral plagioclase phenocrysts, up to 2-3 mm, in a dark red, aphanitic syenite matrix. Typical angular mafic xenolithics, up to 3-4 cm, scattered throughout the unit. 1% fine, chloritic fracturing. Moderately magnetic. Lower contact is sharp but irregular.	8610	313.50	314.00	0.50					NIL	
			8611	314.00	315.00	1.00					NIL	
			8612	315.00	316.00	1.00					NIL	
			8613	316.00	317.00	1.00					NIL	
			8614	317.00	318.00	1.00					0.01	
318.10	327.00	**TRACHYTE PORPHYRY** Massive, dark red-brown. Contains 5-15% phenocrysts in an aphanitic trachyte + syenite groundmass. Phenocrysts are of three varieties:										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL		DESCRIPTION	SAMPLE								ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
		1) Plagioclase; subhedral buff-white to pink feldspar, up to 5 mm, and constitute 50% of phenocrysts. 2) Augite; generally subhedral, dark to pale green crystals and crystal masses, up to 3 mm, 25% of phenocrysts. 3) Leucite; subrounded to pseudo-hexagonal, pale grey to light green leucites, altered, up to 3-4 mm, 25% of phenocrysts. This crystal mush gives the unit a strongly porphyritic texture but may represent a trachyte flow. Strongly magnetic.	8615	318.00	319.00	1.00					NIL	
			8616	319.00	320.00	1.00					NIL	
			8617	320.00	321.00	1.00					0.01	
			8618	321.00	322.00	1.00					0.02	
			8619	322.00	323.00	1.00					NIL	
			8620	323.00	324.00	1.00					NIL	
			8621	324.00	325.00	1.00					NIL	
		325.00 - 327.00 Blocky, rubbly section due to chloritic fracturing. 80-85% recovery.	8622	325.00	326.00	1.00	85				NIL	
			8623	326.00	327.00	1.00	80				NIL	
327.00	345.00	**SYENITE PORPHYRY** Massive, red-pink, very fine grained syenitic groundmass, with 5-7%, fine, sub to euhedral, plagioclase phenocrysts, up to 2-3 mm. Unit contains characteristic mafic xenoliths, up to 3-4 cm, scattered throughout. These xenoliths have sharp, distinct boundaries and display weak, internal sericitization. Moderately magnetic with scattered specularite veinlets. Contains trace of fine grained pyrite on chloritic fractures. Lower contact obscured in rubbly ground.	8624	327.00	328.00	1.00	80	Tr.			NIL	
			8625	328.00	329.00	1.00	85	Tr.			NIL	
			8626	329.00	330.00	1.00		Tr.			0.02	
			8627	330.00	331.00	1.00					NIL	
			8628	331.00	332.00	1.00					NIL	
			8629	332.00	333.00	1.00					NIL	
		333.10 - 333.80 Unit is fractured and cut by white-pink quartz + calcite veining which is fractured and pseudo-brecciated by yellow-green sericite. Remnant augite phenocrysts still evident. Zone also contains strong chlorite ± specularite fracturing and trace clotty pyrite. Contacts seem to be sharp, strong, chloritic slips.	8630	333.00	334.00	1.00	95	Tr.			NIL	
			8631	334.00	335.00	1.00		Tr.		Spec.	NIL	
			8632	335.00	336.00	1.00		Tr.			NIL	
			8633	336.00	336.60	0.60		Tr.			NIL	
		336.60 - 338.35 Bleached, sericitized augite syenite. Semi-massive to fractured and brecciated unit which is purple-brown to yellow-green. 3-5% subhedral to euhedral, light green corroded augite phenocrysts, to 3 mm, in an aphanitic hematite + sericite groundmass.	8634	336.60	337.10	0.50		Tr.	Tr.	10	0.05	
			8635	337.10	337.80	0.70		Tr.	Tr.	15-20	1.18	1.11
			8636	337.80	338.35	0.55		Tr.	Tr.	5-10	0.09	
		338.35 - 341.00 Syenite porphyry contains patchy, yellow-green areas of moderate sericitization, proximal to sharp chloritic slips and strong specularite fracture fillings.	8637	338.35	339.00	0.65		Tr.		3	0.01	
			8638	339.00	339.50	0.50		Tr.		5	NIL	
			8639	339.50	340.00	0.50		Tr.			NIL	
			8640	340.00	341.00	1.00		Tr.			0.01	
		341.00 - 352.40 Broken, rubbly ground due to strong chloritic fracturing. 70% recovery. At ≈ 341.70 m appears to be sericitic fault where porphyry is yellow-green, sericitic with strong	8641	341.00	342.00	1.00		Tr.			NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		specularite fracturing proximal to a 1-2 cm wide zone of sericite schist.										
345.00	363.70	**LEUCITE/AUGITE TRACHYTE PORPHYRY** Trachyte/phonolite. Massive, dark red-brown to mauve coloured unit comprised of 5-10%, pale green-white, prismatic to pseudo-hexagonal, leucite crystals (feldspathoids) (H=4), up to 0.5 cm wide, in a dark aphanitic groundmass. Occasionally sub-euhedral, dark green augite phenocrysts, 2-3%, up to 3 mm wide, are evident in groundmass. Very strongly magnetic. Pervasive, weak to moderate, hydrochloric acid reaction. Scattered throughout unit are the occasional open vesicles and small gashes which are infilled with drusy quartz + calcite + pyrite and are frequently limonite stained. Lower contact is a strong, 2 cm wide, chloritic mud break with small open vugs with small quartz + pyrite crystals. Fault @ 25° tca.	8642	358.00	359.00	1.00				0.02	
			8643	359.00	359.50	0.50					0.05	
		359.55 - 359.65 Fault @ 45° tca. Open vuggy zone with irregular chlorite + pyrite seams interstitial to leucite crystals and pink, altered groundmass. 1% fine grained euhedral pyrite on chlorite and open vugs.	8644	359.50	360.00	0.50		0.5			0.04	
			8645	360.00	360.50	0.50		Tr.			0.07	
			8646	360.50	361.00	0.50		Tr.			0.04	
			8647	361.00	362.00	1.00					0.07	
			8648	362.00	363.00	1.00					0.06	
			8649	363.00	363.70	0.70					0.29	
363.70	368.00	**SYENITE PORPHYRY** Massive, red-purple with 5-10%, subhedral, white plagioclase phenocrysts, up to 3 mm, in an aphanitic, syenitic groundmass. Contains characteristic angular mafic xenoliths, up to 4 cm, which display sharp boundaries and weak internal spotty alteration, sericite ± leucoxene. Moderately magnetic. Lower contact is sharp, irregular, intrusive contact.	8650	363.70	364.20	0.50		Tr.			0.05	
			8651	364.20	365.00	0.80					0.14	
			8652	365.00	366.00	1.00					0.06	
			8653	366.00	367.00	1.00					0.06	
			8654	367.00	368.00	1.00					0.10	
368.00	378.50	**LEUCITE/AUGITE TRACHYTE PORPHYRY** Massive, coarsely porphyritic with open vesicular texture. Comprised of 5-10%, lath-shaped to pseudo-hexagonal leucite crystals. Pale green to white, up to 6 mm wide, in a dark aphanitic groundmass which carries 1-2% corroded, subhedral augite phenocrysts up to 3 mm. Scattered throughout unit are irregular open vesicles, up to 1 cm wide, which are infilled with drusy quartz + calcite + pyrite and frequently display bright green sericite ± epidote (zeolite?) boundaries and dusting inside cavities. Frequently vesicles have euhedral pyrite grains. Strongly magnetic. Intercalated with coarsely porphyritic unit are narrow irregular aphanitic zones, ≤ 25 cm wide, which are hematitic and appear to be fine grained trachyte. Lower contact sharp @ 45° tca.	8655	377.00	378.00	1.00		Tr.			0.05	
			8656	378.00	378.50	0.50		Tr.			0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
378.50	450.00	**TRACHYTE/ASH TUFF** Massive, dark green-brown, fine to very fine grained. Very dark mafic unit with a very fine grained to aphanitic matrix with 2-3% black chloritic specks, up to 1 mm, and what appears to be very fine grained augite. Occasionally unit contains yellow-green spots, up to 0.5 cm, with pink cores which appears to be a sericite ± epidote alteration around K-spar grains. In places open vesicles and cracks are evident which contain drusy quartz + calcite and sometimes pyrite crystals. Cracks reach up to 5 cm long. These open porous spaces are ubiquitous throughout unit. Moderately magnetic. In places, unit appears to be faintly bedded @ 45° tca and may be some sort of ash tuff, (See 388.00 - 390.00 m for example).											
		379.55 3 cm wide, quartz + calcite + pyrite vein @ 60° tca. Open, vuggy calcite + quartz vein with 2% fine grained pyrite on fractures within quartz and disseminated in wall rock.	8657	378.50	379.40	0.90				0.03	
			8658	379.40	379.80	0.40	0.5	Tr.			0.04	
			8659	379.80	380.50	0.70					0.04	
			8660	380.50	381.50	1.00					0.03	
			8661	388.00	389.00	1.00					0.06	
			8662	389.00	390.00	1.00					0.03	
			8663	390.00	391.00	1.00					0.04	
		391.00 - 391.70 Open vuggy crack @ 15° tca.	8664	391.00	392.00	1.00					0.02	
			8665	392.00	393.00	1.00					NIL	
			8666	393.00	394.00	1.00					0.01	
			8667	394.00	394.50	0.50					0.02	
		394.60 - 394.80 Finely laminated ash tuff beds, 1-2 mm wide, fractured and disrupted by open, vuggy chloritic stringers with coarse euhedral pyrite in cavities.	8668	394.50	395.00	0.50					0.12	
			8669	395.00	396.00	1.00		Tr.		Chl.	0.02	
		396.00 Unit is very well bedded @ 60° tca, very fine grained, magnetic ash tuff.	8670	396.00	397.00	1.00					0.03	
			8671	397.00	398.00	1.00					0.02	
			8672	398.00	399.00	1.00					0.01	
			8673	399.00	400.00	1.00					NIL	
			8674	400.00	400.50	0.50					0.02	
		400.50 - 405.80 Syenite porphyry, massive, red-brown syenite with 10-15% subhedral, white, plagioclase phenocrysts, up to 3 mm wide, in a very fine grained syenite matrix. Matrix contains 1-2% sub to euhedral amphibole laths, up to 1 mm, in a very fine grained, syenitic groundmass. Moderately magnetic with scattered, angular mafic xenoliths, up to 2 cm. Sharp, irregular, intrusive contacts. Trace, patchy, fine grained pyrite throughout.	8675	400.50	401.00	0.50		Tr.			NIL	
			8676	401.00	402.00	1.00		Tr.			NIL	
			8677	402.00	403.00	1.00		Tr.			0.01	
			8678	403.00	404.00	1.00		Tr.			NIL	
			8679	404.00	405.00	1.00		Tr.			NIL	
			8680	405.00	405.80	0.80		Tr.			NIL	
			8681	405.80	406.30	0.50					0.05	
		406.30 - 406.60 Narrow syenite porphyry dyke as above with strong chloritic fracturing and brecciated lower contact.	8682	406.30	406.65	0.35		Tr.			0.04	
			8683	406.65	407.50	0.85					0.04	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			8684	407.50	408.00	0.50					NIL	
			8685	408.00	409.00	1.00					NIL	
		413.90 Fault @ 45° tca. Chlorite + quartz + calcite. Strong, 1 cm wide, chloritic mud slip with pink-white quartz + calcite veinlets.	8686	416.00	417.00	1.00					0.01	
			8687	417.00	418.00	1.00					0.12	
			8688	418.00	419.00	1.00					0.03	
		419.20 - 419.60 Syenite porphyry with very irregular, intrusive contacts and included wall rock fragments in syenite.	8689	419.00	419.70	0.70		Tr.			0.02	
			8690	419.70	420.60	0.90					0.08	
		420.60 - 427.20 Syenite porphyry. Massive, brick red with 10-15% subhedral plagioclase laths, up to 3-4 mm, in a very fine grained to aphanitic, syenitic groundmass. 2-3% fine, subhedral amphibole evident in matrix. Weakly magnetic. Unit is quite pitted with open cracks and holes infilled with chlorite, quartz, calcite and occasionally euhedral pyrite. Upper contact, sharp, chloritic slip @ 25° tca. Lower contact sheared @ 60° tca.	8691	420.60	421.10	0.50		Tr.			0.05	
			8692	421.10	421.90	0.80		Tr.			0.09	
			8693	421.90	422.40	0.50		Tr.			0.03	
			8694	422.40	423.00	0.60		Tr.			0.11	
			8695	423.00	423.50	0.50		Tr.			0.21	
		423.60 Fault @ 40° tca. Open, vuggy, chloritic shear, 2 cm wide, with drusy calcite + pyrite.	8696	423.50	424.00	0.50		Tr.			0.37	
			8697	424.00	425.00	1.00		Tr.			0.86	
			8698	425.00	426.00	1.00		Tr.			0.49	
			8699	426.00	426.65	0.65		Tr.			0.41	
		426.65 - 427.20 Two strong chlorite ± sericite shears at contact.	8700	426.65	427.20	0.55		Tr.		10	0.07	
		427.20 - 450.00 Ash tuffs are dark green to purple with moderate pervasive hematization. Fine "crack and seal" texture developed throughout with fine hairline cracks filled with chlorite ± specularite. This "crack and seal" texture occasionally opens into small cracks and pits infilled with drusy quartz, calcite and sometimes pyrite.	8701	427.20	428.00	0.80					0.09	
			8702	428.00	429.00	1.00					0.10	
			8703	429.00	430.00	1.00					0.14	
			8867	430.00	431.00	1.00					0.10	
			8868	431.00	432.00	1.00					0.06	
			8869	432.00	433.00	1.00					0.03	
			8870	433.00	434.00	1.00					0.07	
			8871	434.00	435.00	1.00					0.09	
		435.00 - 435.20 Syenite porphyry dykelet with sharp, irregular, intrusive contacts.	8872	435.00	436.00	1.00					0.04	
			8873	436.00	437.00	1.00					0.16	
			8874	437.00	438.00	1.00					0.11	
			8875	438.00	439.00	1.00					0.02	
			8876	439.00	440.00	1.00					0.05	
			8877	440.00	441.00	1.00					0.02	
			8878	441.00	442.00	1.00					0.03	
			8879	442.00	443.00	1.00					NIL	
			8880	443.00	444.00	1.00					NIL	
			8881	444.00	445.00	1.00					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-34

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
			8882	445.00	446.00	1.00					0.02	
			8883	446.00	447.00	1.00					0.03	
			8884	447.00	448.00	1.00					0.03	
			8885	448.00	449.00	1.00					0.03	
			8886	449.00	450.00	1.00					0.02	
	450.00	**END OF HOLE** Casing left in hole.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 7, 1991 - September 12, 1991	**EASTING**	7599.6
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10097.4
CLAIM No.	L 491182, L 491183	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	337.3
STARTED	September 6, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 12, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	365.50
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test "102" and "103" structures.

COMMENTS "102" gold zone @ 223.00 - 226.00, 3.00 m.
"103" gold zone @ 344.05 - 347.50, 3.45 m.

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	4.00	**OVERBURDEN**
4.00	15.60	**LAPILLI TUFF**
15.60	49.60	**MUDSTONE/SILTSTONE**
		30.60 - 42.00 Sericitic, foliated @ 40-55° tca.
49.60	65.70	**GRAYWACKE**
		Sericitic, trace pyrite, 1-2% quartz.
		51.40 - 52.40 Fault breccia @ 15-30° tca.
65.70	86.60	**MUDSTONE/SILTSTONE**
86.60	132.50	**ASH TUFF**
		97.20 - 102.50 Sericitic
		121.00 - 121.15 Fault @ 40° tca.
132.50	159.60	**ASH/LAPILLI TUFF**
159.60	180.00	**LAPILLI TUFF**
180.00	220.90	**ASH/LAPILLI TUFF**
		206.00 - 209.50 Sericitic, trace pyrite, 2-3% chlorite breccia veinlets.
		220.80 - 220.90 Fault gouge @ 65° tca.
220.90	239.80	**CONGLOMERATE**
		Chloritic, foliated @ 50° tca.
239.80	254.20	**GRAYWACKE**
254.20	275.60	**ASH TUFF**
275.60	313.50	**LAPILLI TUFF**
313.50	340.10	**GRAYWACKE**
		Weakly sericitic.
		321.10 - 321.20 Sheared, sericitic, 5-7% quartz, trace pyrite.
		325.90 - 326.20 Sheared @ 70° tca. 3% quartz veins, 1% pyrite.
		336.95 - 337.10 Quartz + sericite + chlorite + pyrite vein @ 75° tca.
		339.20 - 339.30 Quartz + sericite + pyrite vein @ 75° tca.
		340.10 Fault @ 40° tca.
340.10	343.25	**CONGLOMERATE/GRAYWACKE**
343.25	344.10	**SYENITE**
344.10	354.85	**CONGLOMERATE**
		344.10 - 344.40 Blue grey, silicified zone. 8-10% pyrite < 0.5% chalcopyrite and molybdenite.
		344.40 - 345.40 1-2% pyrite clasts/clots.
		347.50 - 348.50 Sericitic, 5% quartz veins, trace pyrite.
354.85	360.40	**GRAYWACKE**
360.40	365.50	**CONGLOMERATE**
	365.50	**E. O. H.**

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
223.00	226.00	3.00	0.13
340.50	341.50	1.00	0.10
344.05	347.50	3.45	3.11
including			
344.05	344.60	0.55	18.88

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 7, 1991 - September 12, 1991	**EASTING**	7599.6
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10097.4
CLAIM No.	L 491182, L 491183	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	337.3
STARTED	September 6, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 12, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	365.50
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test "102" and "103" structures.

COMMENTS "102" gold zone @ 223.00 - 226.00, 3.00 m.
"103" gold zone @ 344.05 - 347.50, 3.45 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	**See table below for all downhole surveys**		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	341	50
6.0			50
60.0			49
91.0			47
122.0			47
152.0			46
183.0			45
214.0			45
244.0			44
274.0			44
305.0			43

Depth	Method	Azimuth	Dip
336.0			43

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	4.00	**OVERBURDEN**										
4.00	15.60	**LAPILLI TUFF** Massive to moderately well foliated, chloritic, light grey-green, heterolithic lapilli tuff. Comprised of 5-7% angular trachytic clasts, which are light grey, buff and dark green, in a very fine grained, light green ash matrix. Clasts range from 0.5-6 cm (avg. 1 cm) and are very fine grained to spotted trachyte. Unit carries 0.5 - 1% spotty to wispy sericite development. Non-magnetic. Cut by numerous, strong, ankeritic stained shears and 1% irregular, barren, white quartz ± albite veining. Lower contact is sheared, sericitic, with moderate rusty ankerite stain. 5.90 - 6.30 Fault @ 35° tca. Chlorite + sericite + ankerite. Strong, open, chloritic mud slips with pitted ankerite infilling. Interstitial to strong slips, unit is foliated to sheared and somewhat hematitic with strong, wispy, sericite + ankerite ± limonitic staining. Barren cross fault. 9.30 - 10.00 Strong ankerite staining on moderately foliated tuff with minor open vuggy slips, with strong ankerite ± limonite. 14.25 - 14.30 Fault @ 60° tca. Sericite + ankerite. Strong, tight, sericitic shear with moderately rusty ankerite stain.										
15.60	49.00	**MUDSTONE/SILTSTONE** Light green to brown, aphanitic mudstone and dark green siltstone finely interbedded. Mudstones are finely laminated with slumping flame structures, microfolding and faulting evident. Bedding ranges from, 1 mm - 10 cm wide, bedding swings very rapidly from 5° tca to 80° tca due to internal folding. Frequently limbs and noses are stepped due to small scale (≤ 1-2 mm) micro-faults. Lower contact of unit is sheared, sericitic and has 5% late, barren, quartz ± albite veinlets. 15.60 - 16.60 Yellow-green to red-brown due to pervasive sericitization of muds and rusty, ankerite staining of silty horizons. Bedding @ 10° tca. 23.00 - 28.50 Bedding predominantly @ 55° tca then at 28.50 shows abrupt, tight internal folding with irregular, wispy bedding. 30.60 - 42.00 Mudstones become increasingly deformed with irregular, wispy, sericite foliation, developed @ 40-55° tca, while interbedded siltstones are weakly deformed with spotty	8704 8705 8706 8707 8708	29.00 30.00 30.60 31.30 32.00	30.00 30.60 31.30 32.00 32.50	1.00 0.60 0.70 0.70 0.50		Tr. Tr. 1-2 Tr. Tr.	10-15 10-15 5-7	20	0.04 NIL NIL NIL 0.02	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		sericite. Gradual increase in white quartz ± albite veins which are irregular, podiform to ptygmatically folded. Generally barren with minor spotty pyrite. A crosscutting, post-foliation, vein fracture set cuts foliation @ 5° tca. Varies from a hairline crack to 5 mm wide, quartz + sericite vein with minor scattered pyrite.	8709	32.50	33.00	0.50			3	20-30		NIL	
			8710	33.00	34.00	1.00			Tr.	5-10		NIL	
			8711	34.00	35.00	1.00			Tr.	5-10		NIL	
			8712	35.00	36.00	1.00			1	5-10		NIL	
			8713	36.00	37.00	1.00			1	5-10		NIL	
			8714	37.00	38.00	1.00			Tr.	5-10		NIL	
			8715	38.00	39.00	1.00			1	10		NIL	
			8716	39.00	40.00	1.00			3-5	20		NIL	
			8717	40.00	40.50	0.50			1-2	10-15		NIL	
			8718	40.50	41.00	0.50		Tr.	5-7	25-30		NIL	
			8719	41.00	41.50	0.50		Tr.	3-5	25		NIL	
			8720	41.50	42.00	0.50		Tr.	1-2	20		NIL	
		42.00 - 45.40 Strong, irregular, open vein/fracture @ 5° tca with sericite + quartz development. On one side of fracture is deformed sericitized mudstones and on the other side is a quartz breccia vein. Milk-white quartz ± albite flooding, up to 55%, with angular wall rock inclusions, up to 3 cm. Veining is typically barren, multi-generational, with prominent late vein @ 5% tca. Trace scattered pyrite in wall rock.	8721	42.00	43.00	1.00		Tr.	10	25-30		NIL	
			8722	43.00	44.00	1.00		Tr.	40	30		NIL	
			8723	44.00	44.50	0.50		Tr.	25	30		NIL	
			8724	44.50	45.40	0.90		Tr.	30	30		NIL	
			8725	45.40	46.00	0.60			2	30		NIL	
			8726	46.00	47.00	1.00			2-3	25		NIL	
			8727	47.00	48.00	1.00			3-5	30		NIL	
			8728	48.00	49.00	1.00			2-3	30		NIL	
49.00	65.70	**GRAYWACKE** Massive, fine grained, grey-green, lithic graywacke with 2-3% wispy-spotty sericite alteration throughout. Comprised of 60-70% quartz and/or feldspar grains and fine lithic clasts including jasper. Lower contact marked by an irregular quartz ± albite vein, 1 cm wide.	8729	49.00	49.50	0.50			1	3-5		NIL	
			8730	49.50	50.40	0.90			1	3-5		NIL	
			8731	50.40	51.40	1.00			1-2	3-5		NIL	
		51.40 - 52.50 Fault breccia @ 15-30° tca. Strong, open fault breccia with cemented gouge and rock fragment fault walls. Interstitial material is brecciated wall rock and quartz ± albite fragments, up to 2 cm, in a light to blue-grey quartz + calcite matrix. Very strong, reworked fault zone with nil to trace pyrite.	8732	51.40	52.00	0.60		Tr.	10-15	15	Bx.	NIL	
			8733	52.00	52.50	0.50		Tr.	25	15	Bx.	NIL	
			8734	52.50	53.00	0.50			Tr.	10		0.02	
			8735	53.00	54.00	1.00			1-2	10		NIL	
			8736	54.00	55.00	1.00		Tr.	1-2	5		NIL	
		55.00 - 55.20 Irregular, folded quartz ± albite vein with 0.5% fine pyrite in adjacent wall rock, up to 2 cm, from vein.	8737	55.00	55.50	0.50		0.5	5	5		0.01	
			8738	55.50	56.00	0.50		Tr.	Tr.	2		NIL	
			8739	56.00	57.00	1.00			1	1		NIL	
			8740	57.00	57.50	0.50			1	1		NIL	
		57.70 - 57.85 Irregular quartz breccia vein with angular wall rock inclusions and 1% fine grained pyrite on fractures within vein material and in adjacent wall rock.	8741	57.50	58.00	0.50		0.5	2-3	3-5		0.02	
			8742	58.00	59.00	1.00		Tr.	1	1-2		0.01	
			8743	59.00	59.50	0.50		Tr.	1-2	1-2		NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
			8744	59.50	60.00	0.50					NIL	
65.70	86.60	**MUDSTONE/SILTSTONE** Yellow-green to brown, aphanitic, laminated mudstone intercalated with very fine, dark grey-green siltstone. Bedding is very irregular, ranges from ≤ 1 mm to 10 cm wide, and varies from 50°to 5° tca, with sharp, internal folding evident. Bedding contacts are sharp to irregular to interfingered to fluted. Very soft, sericitic. Also intercalated with the sediments are narrow horizons consisting of 10% sub-euhedral, black, chloritized crystals and crystal masses, up to 3 mm, in an aphanitic, sericitic groundmass. These crystal tuff horizons show sharp, intimate contacts and reach up to 25 cm wide. Lower contact gradational over 1 metre. 75.00 Small scale folding evident with small scale faulting and bedding steps sub-parallel to fold axis.										
86.60	132.50	**ASH TUFF** Chlorite ± hematite. Massive to well bedded @ 25-35° tca. Somewhat variable, light grey to green to mauve and very fine to fine grained. Comprised of 30%, fine grained, heterolithic, trachyte clasts, up to 1-2 mm, in a fine grained groundmass. In places, light green, subhedral, augite crystals, ≤ 1-2 mm, are evident within the groundmass. Bedding defined by alternating fine and coarse grained beds and occasionally by hematized magnetite lamellae. Less than 1% scattered lapilli clasts. Patchy strong magnetics. 96.50 - 96.60 Fault @ 35° tca. Quartz + sericite + chlorite. Tight, sharp, chlorite + sericite slip walls infilled by quartz ± albite vein with internal sericitic fracturing. 97.20 - 102.50 Dirty green-brown, mottled, sericitized zone with 5% black, hazy spotting, up to 1-2 cm. Ground mass is pervasively sericitic and altered to an aphanitic buff-brown to green. Spots appear to primary remnant, non-altered, chloritic matrix which show hazy irregular boundaries grading to more highly altered material surrounding these clots. Section also contains 1-2% primary lapilli clasts of trachyte porphyry which generally retain sharply defined outlines. Faint primary bedding evident @ 25° tca. Massive, non-deformed with gradational upper and lower contacts. No associated structures.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
		116.20 Fault @ 30° tca. Chlorite + quartz. Sharp, 1 mm wide, chloritic slip with 0.5 cm wide quartz + chlorite veinlet. 121.00 - 121.15 Fault @ 40° tca. Chlorite + sericite + quartz. Foliated to brecciated ash tuff with angular wall rock fragments, to 1 cm, in a pink-white quartz vein matrix, non-mineralized. Sharp chloritic slip @ 121.15 metre. 125.80 - 132.50 Dark red-brown to mauve ash tuff comprised predominantly of fine red trachyte clasts, ≤ 1 mm, in a dark mafic groundmass. Massive to finely bedded @ 40° tca. Strongly magnetic. Equivalent to monolithic blocky tuffs. Sharp, regular bedding contact.										
132.50	159.60	**ASH/LAPILLI TUFF** Chloritic, hematitic, massive, undeformed, grey-green to dark green to mauve. Intercalated ash and lapilli tuff horizons from 10 cm to 2-3 m wide, generally with gradational contacts. Lapilli tuff horizons are heterolithic with up to 10% angular trachyte clasts up to 5 cm (avg 1-2 cm) in a fine grained ash matrix. Clasts range from grey to dark green to red and from aphanitic to porphyritic. Ash tuff horizons are generally massive to poorly bedded and are of equivalent composition as lapilli tuffs. Lower contact sharp but faint and somewhat irregular. 148.10 - 148.20 Fault @ 40° tca. Chlorite + sericite + quartz + calcite. Sharp, strong chloritic slip with irregular wispy sericite in wall rock infilled by barren, white-pink quartz + calcite veining.										
159.60	180.00	**LAPILLI TUFF** Chloritic ± hematitic, massive, undeformed, dark green, heterolithic lapilli tuff. Comprised of 5-10% angular trachyte clasts, up to 2-3 cm, (avg. 0.5-1 cm) in a fine grained ash matrix. Clasts are grey-green, black, brown and red-pink and range from aphanitic to porphyritic. Patchy, strong magnetics. Cut by 1% barren quartz ± albite veinlets. Lower contact is gradational over 1-2 m. 173.35 Fault @ 60° tca. Chlorite + quartz + calcite. Sharp chloritic slip, with 1 cm wide, quartz + calcite veinlet on slip wall.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
180.00	220.90	**ASH/LAPILLI TUFF** Chloritic ± hematitic, massive to very well bedded and undeformed. Light grey-green to dark green to maroon, very fine to fine grained ash tuff with well developed bedding @ 45° tca. Comprised of fine, heterolithic + trachyte clasts, up to 1 mm, in a dark green mafic matrix, generally poorly sorted. Unit is strongly magnetic and thin, discreet, magnetite lamellae are evident in places. In part intercalated with lapilli tuff horizons, up to 1 m wide (≤ 10%) with 3-5% heterolithic clasts. Weak to moderate, patchy hematization.											
		201.70 Fault @ 70° tca. 1 cm wide, quartz + albite vein with internal wispy sericite and sharp chloritic slip walls.	8745	204.00	205.00	1.00						NIL	
			8746	205.00	205.50	0.50						0.07	
		205.50 - 206.00 Very irregular, anastomosing quartz ± calcite veining with fine hairline chlorite boundaries and internal chloritic fractures. Wall rock is bleached yellow-brown and carries 15-20%, fine, wispy, sericite interstitial to fine ash clasts.	8747	205.50	206.00	0.50			10	20		0.01	
		206.00 - 209.50 Dirty yellow-brown with 15-20%, fine, wispy sericite as above. Section is cut by 2-3% sharp chlorite slips and narrow chlorite breccia veinlets, ≤ 1 cm, with angular wall rock fragments in a black, chloritic ground mass. Trace spotty pyrite. No prominent structure evident and contacts are gradational over 0.5 -1 metre.	8748	206.00	206.50	0.50				20		0.04	
			8749	206.50	207.10	0.60		Tr.		20	Chl.	NIL	
			8750	207.10	208.00	0.90				20		NIL	
			8751	208.00	209.00	1.00						NIL	
			8752	209.00	209.50	0.50						0.01	
			8753	209.50	210.50	1.00						0.02	
			8754	219.00	219.45	0.45						NIL	
			8755	219.45	220.00	0.55				10-15		0.02	
		220.00 - 220.80 Unit becomes increasingly deformed with irregular, wispy sericite and patchy buff bleaching (sericitization) of matrix.	8756	220.00	220.50	0.50				10		0.06	
		220.80 - 220.90 Fault @ 65° tca. Chlorite + sericite + quartz. Strong, tight, 2 mm wide, chlorite mud gouge at 220.85 with surrounding, sericitized sheared zone with late, barren quartz ± calcite infilling. Marks lower contact of unit.	8757	220.50	221.00	0.50			2	15-25	Fault	0.04	
220.90	239.80	**CONGLOMERATE** Massive to weakly foliated @ 50° tca, dark green, chloritic, polymictic pebble conglomerate. Poorly sorted, matrix supported with 10-25%, well rounded to sub-angular, polymictic pebbles from 0.5 cm to >10 cm, in a fine grained, chloritic, graywacke matrix. Foliation outlined by pebble	8758	221.00	221.50	0.50			Tr.	5		NIL	
			8759	221.50	222.00	0.50						0.01	
			8760	222.00	223.00	1.00						0.02	
			8761	223.00	223.50	0.50		Tr.	Tr.	5-10		0.11	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		elongation and weakly developed foliation in matrix. Non-magnetic, cut by 1%, ≤ 2 cm wide, quartz ± albite veinlets.	8762	223.50	224.00	0.50					0.36	
			11901	224.00	225.00	1.00				3	0.02	
			11902	225.00	226.00	1.00					0.13	
			11903	226.00	227.00	1.00					0.01	
			11904	227.00	228.00	1.00					NIL	
239.80	254.20	**GRAYWACKE** Massive, undeformed, dark green, fine grained graywacke. Comprised of 10-15% fine quartz grains, 50% lithics and 35-40% very fine grained, chloritic groundmass. Weak, spotty sericite throughout. Very clean pristine. Lower contact of unit is a sharp, sericite + quartz slip @ 65° tca.	8763	241.00	242.00	1.00		Tr.	Tr.		NIL	
			8764	242.00	243.00	1.00		Tr.	Tr.		0.01	
			8765	243.00	244.00	1.00		Tr.	Tr.		NIL	
		244.30 - 244.40 Semi-massive pyrite lamellae @ 40° tca. Series of very fine grained, semi-massive pyrite bands, up to 2 mm wide, possibly primary bedding.	8766	244.00	244.50	0.50		2	Tr.		NIL	
		244.50 - 246.50 Unit contains scattered irregular quartz ± albite ± calcite veinlets with, weak to moderate, sericite alteration, chloritic fracturing and trace sporadic pyrite.	8767	244.50	245.00	0.50		Tr.	Tr.		0.01	
			8768	245.00	245.50	0.50		Tr.	1		0.03	
			8769	245.50	246.00	0.50		Tr.	Tr.		NIL	
			8770	246.00	246.50	0.50		Tr.	2		0.04	
			8771	246.50	247.00	0.50					NIL	
			8772	247.00	248.00	1.00					NIL	
		248.00 - 254.20 Graywacke contains up to 2-3%, polymictic pebbles conglomerate beds with gradational contacts.	8773	248.00	249.00	1.00					0.07	
			8774	249.00	250.00	1.00					NIL	
254.20	275.60	**ASH TUFF** Massive, dark green, fine to very fine grained, strongly magnetic ash tuff. Non-bedded, undeformed, chloritic, nondescript. Unit has 0.5% scattered, subrounded pebbles, up to 3-4 cm, floating in ash matrix. Pebbles are quite variable but appear to be predominantly trachyte. Lower contact gradational over 0.5 metres.											
		258.50 - 262.60 Unit carries 5% rounded pebbles, up to 5 cm, in a dark green, chloritic ash matrix which is strongly magnetic. Pebbles are dark green, aphanitic mafic volcanics, pink-brown trachyte and minor mudstone. Gradational contacts.										
275.60	313.50	**LAPILLI TUFF - TUFFACEOUS CONGLOMERATE** Massive, undeformed, grey-green, chloritic poorly sorted. Comprised of 10-15%, sub-angular to well rounded, heterolithic clasts and pebbles, up to 5-6										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		cm, in a very fine ash matrix. Clasts are dark green, grey-green, red-brown trachyte which are generally very fine grained to weakly porphyritic or spotted. Matrix is very fine grained, chloritic ash which is moderately to strongly magnetic. No quartz, jasper, granitoid, etc., evident in matrix or framework. Unit has a matrix supported conglomeratic appearance but lacks the exotic pebbles, i.e. jasper, quartz, porphyry, etc. in the matrix. Lower contact of unit is sharp but somewhat irregular and faint.											
		288.50 - 289.00 Unit is intercalated with massive, very fine grained ash tuffs. Sharp, irregular contacts @ 5-10° tca.											
		291.00 - 294.70 Ash tuff. Massive, dark green, fine grained ash, comprised of 5%, fine, broken, grey-white, subhedral plagioclase crystals, up to 1 mm, in a dark mafic ash groundmass. Very minor, scattered pebble clasts, < 0.5%. Moderately magnetic. Weak bedding @ 10° tca. Contacts with pebbly horizons are sharp to gradational.	8775	308.00	309.00	1.00						NIL	
			8776	309.00	310.00	1.00						0.03	
			8777	310.00	310.50	0.50			Tr.			0.03	
		310.70 - 310.95 Quartz + calcite + chlorite breccia vein with angular wall rock and quartz + calcite fragments floating in a dark green chlorite groundmass. Very minor, spotty pyrite.	8778	310.50	311.00	0.50		Tr.	5		Chl.	0.01	
			8779	311.00	312.00	1.00						0.03	
			8780	312.00	313.00	1.00						0.01	
			8781	313.00	313.50	0.50						0.01	
313.50	340.10	**GRAYWACKE**											
		Massive to poorly bedded, fine grained, grey-green graywacke, comprised of 10-15%, fine quartz grains, ≤ 1 mm, and 35%, fine lithics, including jasper, in an aphanitic, chloritic groundmass. Weak, spotty sericite is pervasive throughout as well as trace disseminated pyrite.	8782	313.50	314.00	0.50						NIL	
			8783	314.00	315.00	1.00						NIL	
			8784	315.00	315.80	0.80						NIL	
		316.00 - 320.00 Unit takes on a patchwork appearance, due to a set of irregular hairline cracks, which have dark green, chloritic, alteration halos, up to 1-2 mm, from cracks. Fractures are generally tight with quartz ± calcite ± sericite infilling. Very minor pyrite associated with these fractures. Prominent fracture set @ 30-45° tca. Where fractures cross-cut each other, dark alteration halos coalesce into small masses.	8785	315.80	316.50	0.70		Tr.	Tr.	1-2		0.01	
			8786	316.50	317.00	0.50		Tr.	Tr.			NIL	
			8787	317.00	317.50	0.50		Tr.	Tr.			NIL	
			8788	317.50	318.00	0.50		Tr.	Tr.			NIL	
			8789	318.00	318.50	0.50		Tr.	Tr.			NIL	
			8790	318.50	319.00	0.50		Tr.	Tr.			NIL	
			8791	319.00	319.50	0.50		Tr.	Tr.			NIL	
			8792	319.50	320.00	0.50		Tr.	Tr.			0.01	
			8793	320.00	320.50	0.50		Tr.	Tr.			0.01	
			8794	320.50	321.00	0.50		Tr.	Tr.			0.01	
		321.10 - 321.20 Sheared sericitic schist with fractured, boudinaged quartz ± albite veinlets, up to 0.5 cm wide. Minor trace pyrite.	8795	321.00	321.50	0.50		Tr.	5-7	10-15		0.02	
		321.30 Vein is on downhole side of 1 cm wide sericitic shear.	8796	321.50	322.00	0.50		Tr.	1	2-3		0.02	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		321.30 - 321.50 White to pink, fractured quartz vein with internal sericite suturing and fracture fillings which carry minor euhedral pyrite.										
		322.00 - 325.90 Polymictic pebble conglomerate horizon. Upper contact gradational. Lower contact sheared @ 70° tca.	8797	322.00	323.00	1.00		Tr.	1-2	2-3	0.01	
			8798	323.00	324.00	1.00		Tr.	Tr.	2-3	0.01	
			8799	324.00	325.00	1.00		Tr.		2-3	NIL	
			8800	325.00	325.90	0.90		Tr.	1	2-3	NIL	
		325.90 - 326.20 Sheared zone with 15-20%, wispy, sericitic foliation @ 70° tca and 3% fractured to boudinaged, quartz ± albite veinlets, up to 0.5 cm wide.	8801	325.90	326.40	0.50		1	3	25	0.01	
		326.15 A 2 cm wide section with 5% very fine grained pyrite on sericitic foliation.	8802	326.40	327.00	0.60		Tr.	1	2-3	0.01	
			8803	327.00	327.50	0.50		Tr.	0.5		0.01	
			8804	327.50	328.00	0.50		Tr.			0.02	
			8805	328.00	328.50	0.50		Tr.	Tr.		NIL	
		328.50 - 328.90 Yellow-green, aphanitic, laminated mudstone @ 55° tca. Minor chloritic fracturing and late, barren quartz veinlets.	8806	328.50	329.00	0.50		Tr.	Tr.		NIL	
		328.90 Graywacke is massive, fine grained, with weak, pervasive, spotty sericite. Unit carries, trace to 0.5%, disseminated fine grained pyrite throughout and 1-2% fine, hairline chloritic fracturing and ≤ 2 cm wide, minor chlorite breccia veinlets.	8807	329.00	330.00	1.00		Tr.	1-2		0.02	
			8808	330.00	331.00	1.00		Tr.	Tr.		0.02	
			8809	331.00	332.00	1.00		Tr.	Tr.		0.01	
			8810	332.00	333.00	1.00		Tr.	Tr.		NIL	
			8811	333.00	334.00	1.00		Tr.	Tr.		0.01	
			8812	334.00	335.00	1.00		Tr.	Tr.		0.01	
			8813	335.00	335.70	0.70		Tr.	Tr.		0.01	
		335.70 - 336.30 Massive, aphanitic, mudstone bed @ 45° tca.	8814	335.70	336.30	0.60					0.01	
			8815	336.30	336.95	0.65		Tr.	Tr.		NIL	
		336.95 - 337.10 Quartz + sericite + chlorite + pyrite vein @ 75° tca. Irregular, white-grey, quartz ± albite ± calcite veinlet with internal wispy sericite and pyrite suturing up to 0.5 cm wide. Pyrite on sutures is very fine grained and semi-massive. Sharp, strong, chlorite slip boundaries.	8816	336.95	337.40	0.45		1-2	5	5-7	0.03	
			8817	337.40	338.00	0.60		Tr.	Tr.		NIL	
			8818	338.00	339.00	1.00		Tr.			NIL	
		339.20 - 339.30 Quartz + sericite + pyrite vein @ 75° tca. Irregular quartz ± albite vein with strong, internal sericite suturing and weak vein brecciation. 1-2% very fine grained pyrite on sericite slips and fractures.	8819	339.00	339.50	0.50		1	5	10	NIL	
			8820	339.50	340.00	0.50		Tr.	Tr.		NIL	
		340.10 Fault @ 40° tca. 1.5 cm wide, chlorite breccia with sharp, strong, chloritic slip walls and internal sericitic foliation and minor brecciated quartz ± albite fragments. Marks lower contact of unit.	8821	340.00	340.50	0.50					0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
340.10	343.25	**CONGLOMERATE** Massive to weakly foliated, chloritic, polymictic, pebble conglomerate with 0.5%, 0.2 cm wide, quartz + albite veins.											
		341.85 - 342.35 Graywacke, medium grained, green-grey, massive.	8822	340.50	341.50	1.00			0.5			0.10	
			8823	341.50	342.50	1.00			0.5			0.02	
			8824	342.50	343.20	0.70			0.5			0.05	
343.25	344.10	**SYENITE** Red-brown, medium grained, fractured, weakly porphyritic syenite with < 1%, 1-2 mm, white feldspar phenocrysts and < 0.5% specularite and chlorite filled fractures. Trace disseminated pyrite. Sharp upper contact marked by specularite veinlet @ 45° tca. Sharp lower contact marked by a chlorite slip @ 60° tca.	8825	343.20	344.05	0.85		Tr.			Hem. Chl.	0.08	
344.10	354.85	**CONGLOMERATE** Poorly sorted, loosely packed, polymictic pebble conglomerate. Angular to well rounded, jasper, quartz, trachyte, syenite and mafic volcanic clasts, 0.5-6 cm wide, in a weakly chloritic, graywacke matrix.											
		344.10 - 344.40 Silicified, sericitic, pyrite zone. Blue-grey to yellow-green. 8-10%, fine to medium grained, disseminated pyrite. < 0.5% molybdenite finely disseminated and on chloritic fracture planes. < 0.5% fine grained chalcopyrite in clusters. Sharp, undulating lower contact marked by chloritic slip @ 70° tca.	8826	344.05	344.60	0.55		8-10	1	15	Sil. Mo.Cp.	18.65	19.10
		344.40 - 344.60 Trace to 0.5%, finely disseminated pyrite in graywacke matrix of conglomerate. 3%, 0.5-1.5 cm wide, pyrite clasts or clots.										0.25	
		344.40 - 345.40 1-2% scattered clusters of subrounded to rounded, 0.5-4 cm wide, pyrite clasts or clots which are fine grained and massive or medium to fine grained and fractured. Fractures are filled with dark green chlorite and quartz.	8827	344.60	345.50	0.90		1-2				0.02	
			8828	345.50	346.50	1.00						0.11	
			8829	346.50	347.50	1.00						0.02	
		347.50 - 348.50 Sericitic and chloritic. Weakly to moderately foliated @ 30° tca. 5% irregular, 0.5-2 cm wide, white to pink, quartz + calcite veinlets. Trace finely disseminated pyrite in veins and along vein contacts.	8830	347.50	348.50	1.00		Tr.	5	10	Chl.	0.04	
			8831	348.50	349.50	1.00							
		348.30 Chloritic mud gouge, 0.2 cm wide, @ 30° tca.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-35

INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py %QV %Ser		Au, g/t	Au,Check
354.85	360.40	**GRAYWACKE** Green to brown-green, fine grained, chloritic graywacke. 356.40 - 357.20 Brown, weakly sericitic, brecciated zone. 1-2% chlorite-filled fractures.									
360.40	365.50	**CONGLOMERATE** Chloritic, pebble-poor, polymictic conglomerate with 0.2-5 cm rounded clasts and 1%, 0.1-2 cm, irregular, wispy to rectangular, dark green, chloritic mafic volcanic clasts in chloritic, weakly sericitic graywacke matrix. Weakly foliated @ 70° tca. < 0.5% irregular calcite veinlets.									
	365.50	**END OF HOLE** Casing left in hole.									

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-36

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 14, 1991 - September 15, 1991	**EASTING**	7599.9
TOWNSHIP	Teck	**LOGGED BY**	Wayne Benham	**NORTHING**	10008.6
CLAIM No.	L 491183	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	337.1
STARTED	September 12, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 14, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	132.80
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test low magnetic anomaly and shear zone.

COMMENTS No anomalous assays.

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Collar	Compass	341	50
6.1			48
30.5			47
61.0			47
91.0			46
121.90			46

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION
0.00	3.35	**OVERBURDEN**			
3.35	11.35	**BLOCK TUFF**			
11.35	23.00	**ASH/LAPILLI TUFF**			
23.00	40.45	**CONGLOMERATE**			
		37.70 - 40.45 Chloritic, fractured.			
		40.45 Fault @ 55-65° tca.			
40.45	45.20	**SYENITE**			
45.20	54.70	**GRAYWACKE**			
		Sericitic, trace pyrite.			
54.70	63.00	**BLOCK/LAPILLI TUFF**			
63.00	69.35	**ASH LAPILLI TUFF**			
69.35	77.70	**BLOCK/LAPILLI TUFF**			
		72.70 - 73.50 Fault zone.			
77.70	95.45	**ASH/LAPILLI TUFF**			
95.45	100.00	**LAPILLI TUFF**			
100.00	106.92	**BLOCK TUFF**			
		103.00 - 106.90 Bleached			
106.92	118.00	**LAPILLI/ASH TUFF**			
		Sericitic, chloritic, weakly foliated @ 55° tca.			
118.00	126.75	**ASH/LAPILLI TUFF**			
		Weakly sericitic and chloritic.			
126.75	132.80	**GRAYWACKE**			
	132.80	**E. O. H.**			

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-36

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	3.35	**OVERBURDEN**										
3.35	11.35	**BLOCK TUFF** Dark green to red, hematitic, limonite stained, fractured, "monolithic" block tuff with 90%, 1-10 cm, subrounded, irregular, elongate, red trachyte clasts and 10%, < 2 cm, green to light green heterolithic clasts in a dark green, coarse grained, ash tuff matrix. Clasts and matrix are strongly magnetic. Lower contact is ground.										
11.35	23.00	**ASH/LAPILLI TUFF** 11.35 - 14.20 Tightly packed, 0.5-4 cm, rounded to subrounded, grey, green and maroon, heterolithic, trachyte clasts in 10% green ash matrix. Moderately magnetic. 14.20 - 21.45 Dark green, massive, fine grained ash tuff. Occasional, 0.5-1 cm, grey lapilli clasts. Strongly magnetic. 21.45 - 23.00 Tightly packed, 0.5-4 cm, rounded to subrounded, grey, green and maroon, heterolithic, trachyte clasts in a green ash matric. 22.65 - 22.85 Foliated @ 55° tca. 5% barren, white quartz + calcite veins, 0.01-0.3 cm wide, in a chloritic tuff.										
23.00	40.45	**CONGLOMERATE** 23.00 - 37.70 Poorly sorted, moderately tightly packed, pebble conglomerate. Well rounded to angular, 0.2-10 cm wide, clasts of feldspar porphyry, mafic volcanics, trachyte and jasper, in a dark green, medium to fine grained, quartz-poor matrix which locally appears to be tuffaceous. Weak to moderately magnetic.										
		37.70 - 40.45 Chloritic, fractured conglomerates. Weakly foliated @ 55° tca. Lower contact marked by 1 cm fault gouge @ 55-65° tca.	8832 8833	37.45 38.45	38.45 39.00	1.00 0.55		1	Chl.		NIL 0.02	
		39.30 - 39.90 Brown-red, bleached, altered, sericitic, fractured, syenite dyke with 10-15% irregular network of white, 1-3 mm wide, quartz + ankerite veinlets. Contacts are at 65° tca.	8834 8835	39.00 39.90	39.90 40.50	0.90 0.60		10	Chl. Hem. Chl.		NIL 0.01	
40.45	45.20	**SYENITE** Red to purple, hematitic, silicified syenite dyke with 2-5%, 1-4 mm wide, plagioclase phenocrysts, in a fine grained, syenite matrix. Moderately										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-36

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		magnetic. Intruded by 5-10%, irregular network of 0.5-3 mm wide, quartz + ankerite veinlets. Trace pyrite and chalcopyrite along contacts of the quartz veinlets.	8836	40.50	41.20	0.70		Tr.	5	Hem.		NIL	
			8837	41.20	42.20	1.00		Tr.	10	Hem.		NIL	
			8838	42.20	43.50	1.30		Tr.	10	Hem.	Cp.	NIL	
			8839	43.50	44.30	0.80		Tr.	2	Hem.	Cp.	0.01	
		43.50 - 44.25 Very fine grained, silicified, vaguely porphyritic, strongly magnetic.	8840	44.30	45.20	0.90		Tr.	2	Hem.		0.01	
		45.05 - 45.20 Sericitic, bleached, very irregular lower contact.											
45.20	54.70	**GRAYWACKE**											
		Light grey-green, green, grey to dark grey, sericitic altered, massive graywacke. Locally contains 5% sub angular, 0.2-1 cm wide, altered mafic volcanic clasts. Trace jasper. Pervasive sericitic alteration of matrix wrapped around quartz grains. Weak chlorite alteration developed in irregular, wispy fractures. Trace disseminated pyrite.	8841	45.20	46.00	0.80		Tr.		10		NIL	
			8842	46.00	47.00	1.00		Tr.		10		NIL	
			8843	47.00	48.00	1.00		Tr.		10		0.02	
			8844	48.00	49.00	1.00		Tr.		5	Chl.	0.02	
			8845	49.00	50.00	1.00		Tr.		10		NIL	
			8846	50.00	51.00	1.00		Tr.		10		NIL	
			8847	51.00	52.00	1.00		Tr.		10		NIL	
		52.40 - 52.90 White, opaque quartz vein @ 15-20° tca.	8848	52.00	53.00	1.00		Tr.	15	15		NIL	
			8849	53.00	54.00	1.00		Tr.		15		NIL	
			8850	54.00	54.70	0.70		Tr.		15		NIL	
54.70	63.00	**BLOCK/LAPILLI TUFF**											
		Red, dark red,green, chloritic, heterolithic, block to lapilli tuff. Moderately tightly packed, 0.5-8 cm, irregular, subrounded, red to green trachyte clasts, in 15%, medium grained, green, chloritic, weakly sericitic, ash tuff matrix. Strongly magnetic. 1-2% irregular quartz + ankerite veinlets.	8851	54.70	55.70	1.00						NIL	
63.00	69.35	**ASH/LAPILLI TUFF**											
		Dark green, massive, medium grained, ash tuff. Lapilli tuff sections, up to 0.5 m wide, with 0.2-1 cm, heterolithic, trachyte lapilli clasts. Moderately magnetic.											
		64.60 - 64.95 Bedding @ 70-80° tca defined by, 1-3 mm thick, magnetite beds.											
69.35	77.70	**BLOCK/LAPILLI TUFF**											
		Dark green to red, 0.5-10 cm, trachyte and feldspar porphyritic clasts in chloritic ash matrix.											
		72.70 - 73.50 Fault zone. Broken, rubbly, rusty core, 50% recovery.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-36

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		75.60 - 77.40 Bleached, fractured. 5%, 1-2 m wide, quartz veinlet. 76.70 - 77.10 Breccia zone with 5%, black, chloritic breccia veinlets.										
77.70	95.45	**ASH/LAPILLI TUFF** Grey-green, fine to medium grained, massive ash tuff, intercalated with, 0.5-1.5 m wide beds of heterolithic, grey-green, lapilli tuff. Strongly magnetic.										
95.45	100.00	**LAPILLI TUFF** Dark grey-green, heterolithic lapilli tuff, with 0.5-1.5 cm wide, subangular to subrounded, grey, green and pink, trachyte clasts in a medium grained, dark green, ash matrix. Strongly to moderately magnetic. Contacts are gradational.										
100.00	106.92	**BLOCK TUFF** Strongly magnetic, heterolithic block tuff, with the same clast composition as the lapilli tuff unit at 95.45-100.00. 1-15 cm wide, grey, green, pink and red trachyte clasts, loosely packed in a medium grained, grey-green, lapilli to ash tuff matrix.										
		103.00 - 106.90 Bleached, weak sericite alteration, 1-2%, 0.2-1 cm wide, irregular, white quartz + albite veinlets. 104.90 0.5 cm wide, irregular, vuggy, drusy quartz veinlet @ 5-40° tca, with 1%, pyrite cubes and trace chalcopyrite.	8852	104.70	105.50	0.80		1		Ch.	0.01	
			8853	105.50	106.20	0.70		0.5			NIL	
			8854	106.20	106.90	0.70		1			0.01	
106.92	118.00	**LAPILLI/ASH TUFF** Green, grey to yellow-grey, weakly to moderately sericitic and chloritic, altered lapilli to ash tuff. The contact of the intercalated lapilli and ash horizons are poorly defined due to the chlorite and sericite alteration. Lapilli tuff sections consists of 0.5-4 cm, subrounded to subangular, grey to green, trachyte clasts in a medium grained, weakly sericitic and chloritic, ash matrix. Occasional leucite porphyritic, dark green, trachyte clasts with traces of pyrite. Weakly foliated @ 55° tca. 1-2%, 0.2-2 cm wide, white, very irregular quartz + albite veinlets and discontinuous veins.	8855	106.90	108.00	1.10		<1	5		0.08	
			8856	108.00	109.00	1.00		<1	5		NIL	
			8857	109.00	110.00	1.00		<1	5		0.01	
			8858	110.00	111.00	1.00		<1	5		0.01	
			8859	111.00	112.00	1.00		<1	5		NIL	
			8860	112.00	113.00	1.00		<1	5		0.01	
			8861	113.00	114.00	1.00		2	10		0.01	
			8862	114.00	115.00	1.00		3-5	10		NIL	
			8863	115.00	116.00	1.00		1	10		NIL	
			8864	116.00	117.00	1.00		1	10		NIL	
			8865	117.00	118.00	1.00		<1	10		NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-36

INTERVAL		DESCRIPTION	SAMPLE							ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
118.00	126.75	**ASH/LAPILLI TUFF** Fine to medium grained, green-grey ash tuff, with 0.5-1 m wide, interbeds of heterolithic lapilli tuff. Weakly sericitic and chloritic. Sharp lower contact @ 60° tca. 120.40 - 120.70 Finely bedded @ 45° tca.	8866	118.00	119.00	1.00			Tr.	5	NIL	
126.75	132.80	**GRAYWACKE** Massive, yellow-grey, very weakly sericitic, fine to medium grained graywacke. Scattered, 0.5-1 cm, rounded, light brown, siltstone pebbles and 0.5-1 mm jasper clasts. < 0.5%, 1-3 mm wide, barren quartz veinlets. 126.75 - 127.20 Bleached, sericitic and silicified. 15-20% quartz ± chlorite breccia veining at upper contact of graywacke unit.										
	132.80	**END OF HOLE** Casing pulled.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 16, 1991 - September 22, 1991	**EASTING**	7500.2
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10423.3
CLAIM No.	L 491182	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	328.4
STARTED	September 15, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 21, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT		**LENGTH**	301.35
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test Amalgamated Kirkland Syenite

COMMENTS "106" gold zone @ 182.00 - 192.20, 10.20 m.
"A56" gold zone @ 239.00 - 264.00, 25.00 m.

SIGNED BY (W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	6.70	**OVERBURDEN**
6.70	7.80	**LAPILLI TUFF**
7.80	31.80	**DIABASE**
		Mafic intrusive.
31.80	32.80	**TRACHYTE/SYENITE**
32.80	35.00	**FAULT ZONE**
35.00	127.50	**LEUCITE-AUGITE TRACHYTE PORPHYRY**
127.50	128.50	**SYENITE PORPHYRY**
128.50	130.20	**HORNBLENDE-FELDSPAR PORPHYRY**
130.20	131.35	**SYENITE PORPHYRY**
131.35	134.00	**HORNBLENDE-FELDSPAR PORPHYRY**
134.00	142.00	**SYENITE PORPHYRY**
		134.40 - 134.70 2% pyrite on 1 cm quartz vein.
142.00	148.60	**HORNBLENDE-FELDSPAR PORPHYRY**
148.60	157.00	**SYENITE PORPHYRY**
157.00	188.70	**HORNBLENDE-FELDSPAR PORPHYRY**
		180.00 - 187.70 Weakly bleached.
		182.40 - 182.90 Sericitic, 1% quartz + calcite veins, < 0.5% pyrite, trace chalcopyrite.
188.70	191.80	**SYENITE PORPHYRY**
		Hematitic, trace pyrite.
191.80	192.70	**HORNBLENDE-FELDSPAR PORPHYRY**
		Silicified with quartz + pyrite breccia veins.
192.70	201.00	**SYENITE PORPHYRY**
		Hematitic, trace pyrite.
201.00	225.15	**POLYMICTIC PEBBLE CONGLOMERATE**
225.15	301.35	**SYENITE PORPHYRY**
		Hematitic, trace pyrite.
	301.35	E. O. H.

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
125.50	126.00	0.50	0.20
134.40	137.70	0.30	0.15
156.50	157.10	0.60	0.15
182.00	192.20	10.20	0.44
including			
182.00	183.00	1.00	2.39
193.15	193.50	0.35	0.25
203.00	204.00	1.00	0.19
239.00	264.00	25.00	0.18
including			
239.00	240.00	1.00	0.79
including			
239.50	240.00	0.50	1.46
and			
243.00	244.00	1.00	0.12
245.00	257.00	12.00	0.21
259.60	260.70	1.10	0.33
263.00	264.00	1.00	0.29

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 16, 1991 - September 22, 1991	**EASTING**	7500.2
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10423.3
CLAIM No.	L 491182	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	328.4
STARTED	September 15, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	September 21, 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.	**LENGTH**	301.35
		SURVEY INSTRUMENT		**UNITS**	metres
				CORE SIZE	NQ

PURPOSE To test Amalgamated Kirkland Syenite

COMMENTS "106" gold zone @ 182.00 - 192.20, 10.20 m.
"A56" gold zone @ 239.00 - 264.00, 25.00 m.

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	341	61
6.0			61
30.0			60
60.0			60
90.0			59
120.0			61
150.0			60
180.0			61
210.0			61
240.0			60
270.0			60

Depth	Method	Azimuth	Dip

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
0.00	6.70	**OVERBURDEN**										
6.70	7.80	**LAPILLI TUFF** Massive to well foliated @ 35° tca with very irregular, anastomosing, wispy sericite which occurs in small patches, 10-20 cm wide, in an otherwise fairly massive tuff. Unit is dark green-brown with 2-3% angular, dark green, lapilli clasts, up to 1 cm, scattered in a very fine grained to aphanitic matrix. Clasts are chloritic, display pale green, altered boundaries and frequently contain secondary pyrite crystals. Foliated sections typically carry 1-5% quartz + calcite flooding interstitial to wispy sericite. Aphanitic groundmass, 1% fine spotty sericite. Non-magnetic.	8887 8888	6.70 7.20	7.20 7.80	0.50 0.60		Tr. Tr.	Tr. Tr.	10 3-5	0.05 0.06	
7.80	31.80	**MAFIC INTRUSIVE/GABBRO/DIABASE** Unit is massive, crystalline, fine to medium grained, dark green, with patchy pink hues (potassium feldspar) in groundmass and an overall gabbroic texture. Comprised of 10-15%, sub to euhedral, lath-shaped, dark grey crystals, up to 5 mm long, in a pale green, chloritized matrix. Frequently these feldspar crystals display a poikilitic texture within the pale green, altered, amphibole matrix. Unit also contains 1-2% small acicular, dark brown crystals and crystal masses, up to 2 mm, possibly actinolite or ilmenite. Groundmass is fine grained to aphanitic, quite hard. This rock was previously noted as a diabase sill in early 1940's mapping and may represent gabbroic diabase versus Matachewan-type diabase. Unit is strongly magnetic and has sharp, chilled intrusive contacts. Contacts are non-magnetic up to 25 cm. Pervasive moderate hydrochloric acid reaction. Minor specularite veinlets.	8889 8890	30.00 31.00	31.00 31.80	1.00 0.80					0.01 NIL	
31.80	32.80	**TRACHYTE/SYENITE(?)** Unit is very hard and baked with a moderate internal chloritic micro-fracturing which carries 0.5% fine pyrite and trace chalcopyrite. Non-magnetic.										
		31.80 - 32.50 Unit is comprised of 50-60%, dark red, aphanitic (syenitic) potassium feldspar(?) in a very fine grained, dark groundmass. 32.00 Red matrix appears as small, rounded fragments less than 1 cm in size and comprising 25% of unit. 32.50 Unit contains 2-3%, anhedral, buff-white plagioclase phenocrysts, up to 3-4 mm.	8891 8892	31.80 32.30	32.30 32.80	0.50 0.50		0.5 0.5			0.01 0.03	

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DIAMOND DRILL LOG

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
32.80	35.00	**FAULT ZONE @ 50° TCA** Strong fault breccia to fault mud gouge. Entire zone is non-mineralized.										
		32.80 - 33.00 Chloritic mud gouge with 10% calcite infilling.	8893	32.80	33.30	0.50				Chl.Bx	0.04	
		33.00 - 34.15 Fault breccia comprised of 3-5%, rounded, pinkish clasts, to 1 cm, in a semi-coherent, strong, chloritic mud fault. Augen-type texture. Sharp mud slips display well developed slickenslides which suggest dextral displacement.	8894	33.30	34.00	0.70				Chl.Bx	0.07	
		34.15 - 35.00 Sheared to brecciated section with sharp, strong, chloritic slips and brecciation with angular wall rock fragments, from 1 mm to 2 cm, in a dark chloritic groundmass.	8895	34.00	34.50	0.50			5	10	0.02	
			8896	34.50	35.00	0.50					0.02	
35.00	127.50	**LEUCITE-AUGITE PORPHYRY (TRACHYTE)** Unit contains 1-2%, barren, white-pink, quartz + calcite veinlets, ≤ 2-3 cm wide, and scattered ≤ 0.5 cm wide hematite ± specularite veinlets. Also has a strong chlorite ± specularite joint/fracture set which makes unit quite blocky in places. This section also displays gradual increase in fracturing with a moderate "crack and seal" texture developed towards contact. Fractures are lined with specular hematite and minor spotty pyrite. Pyrite is subhedral, irregular clots and small masses, up to 1 cm. Magnetism drops sharply as magnetite --->hematite. Lower contact is a sharp, strong, 1 cm wide, chlorite + sericite shear @ 70° tca.											
		35.00 - 37.40 Unit is hematitic altered and fractured, bright red, aphanitic groundmass with 5% pale green, sericitized, subhedral augite phenocrysts, up to 4 mm and 2-3%, light yellow-green, altered leucites, up to 4-5 mm. "Crack and seal" type fracturing infilled with chlorite + hematite and trace fine pyrite.	8897	35.00	35.50	0.50		Tr.			0.02	
			8898	35.50	36.00	0.50		Tr.			0.01	
			8899	36.00	36.50	0.50		Tr.			0.01	
			8900	36.50	37.40	0.90		Tr.			0.05	
		37.40 - 39.80 Unit is bright yellow-green, pervasively sericitized with buff-pink, euhedral leucite phenocrysts and green augite in a foliated, wispy, sericitic groundmass. Prominent foliation @ 50° tca marked by sericite and irregular hematitic veinlets to 0.5 cm.	8901	37.40	38.00	0.60	90			35 Hem.	0.01	
		38.40 - 39.80 Later crosscutting fracture slip cuts core @ 5° tca and contains smeared sericite + calcite + hematite.	8902	38.00	38.60	0.60				35 Hem.	0.01	
			8903	38.60	39.20	0.60				35	0.01	
			8904	39.20	39.80	0.60				35	0.03	
		39.80 Unit is massive, strongly porphyritic, dark red-brown to maroon, hematitic, with 5-7%, light green to buff,	8905	39.80	40.80	1.00					0.02	
			8906	40.80	41.80	1.00		Tr.			0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		euhedral leucite laths with pseudo-hexagonal cross sections, up to 7 mm, avg 3-4 mm, and 2-3% dark green, subhedral augite phenocrysts, to 4 mm, in an aphanitic groundmass. Phenocrysts are randomly oriented, (i.e. no flow textures). Strongly magnetic with moderate, pervasive hydrochloric acid reaction. Very homogeneous.											
41.80	41.90	5-10% fine grained pyrite on irregular chloritic fractures cut by late barren quartz + calcite veinlets.	8907	41.80	42.30	0.50		0.5			Qtz+Cal	0.04	
			8908	42.30	43.00	0.70						0.02	
			8909	61.00	62.00	1.00						0.02	
			8910	62.00	63.00	1.00						NIL	
63.00	63.80	Unit is sericitized, yellow-green, proximal to sharp, strong chlorite shear @ 63.3 m. Phenocrysts are sericitic and are bright green to buff in a moderately foliated matrix. Fault @ 50° tca.	8911	63.00	63.80	0.80				40		0.04	
			8912	63.80	64.40	0.60				10		0.02	
			8913	64.40	65.00	0.60				5		NIL	
65.20	65.50	Bright green, sericite alteration of unit with a sharp, tight, chlorite + sericite + calcite slip @ 65.4 m.	8914	65.00	65.50	0.50				25		0.01	
			8915	65.50	66.00	0.50					Spec.	0.01	
			8916	66.00	66.80	0.80						0.01	
			8917	66.80	67.40	0.60			2	10		0.02	
			8918	67.40	68.00	0.60						0.01	
			8919	72.00	72.80	0.80						0.02	
			8920	72.80	73.30	0.50		Tr.	2	10		0.03	
73.35		Fault @ 45° tca. Chlorite + specularite + calcite. 1 cm wide, sharp chloritic slip with smeared specularite + calcite. Moderate sericitization of wall rock, up to 2 cm.	8921	73.30	73.80	0.50		Tr.	1-2	20		0.03	
			8922	73.80	74.80	1.00						0.01	
74.90	75.10	Sheared porphyry @ 30° tca with sharp chlorite + sericite + calcite slips and 1-2% fine pyrite on slip walls.	8923	74.80	75.30	0.50		1-2	Tr.	10		0.03	
			8924	75.30	75.60	0.30						0.02	
75.65	75.75	Tight chloritic slip @ 45° tca @ 75.7 m. Surrounding slip is irregular quartz + calcite veining with 1% subhedral pyrite on vein boundaries and on chloritic fractures.	8925	75.60	76.00	0.40		Tr.	5	10		0.01	
			8926	76.00	77.00	1.00						0.01	
77.35	77.45	Fault @ 80° tca. Chlorite + sericite + quartz + calcite. Sharp, strong chloritic slips with sheared interstitial wall rock and fractured quartz + calcite veinlets.	8927	77.00	77.50	0.50				10		0.01	
			8928	77.50	78.00	0.50						0.03	
90.00	121.50	Unit is very blocky and rubbly due to strong, close-spaced chlorite ± specularite joint sets @ 15°, 30°, 55° and 70° tca. Most boxes are coarse gravel-size fragments.											

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DIAMOND DRILL LOG

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		123.00 - 127.50 Unit becomes increasingly bleached and altered towards contact with syenite porphyry. Groundmass grades from dark red-brown to light pink-brown to light green-brown at contact due to gradual increase in sericite.	8929	122.00	123.00	1.00		Tr.		Spec.	0.04	
			8930	123.00	124.00	1.00		Tr.		Spec.	0.01	
			8931	124.00	125.00	1.00		0.5	Tr.	Spec.	0.07	
			8932	125.00	125.50	0.50		Tr.	Tr.	Spec.	0.20	
			8933	125.50	126.00	0.50		Tr.	1	Spec.	0.03	
			8934	126.00	126.50	0.50		Tr.	1	Spec.	0.01	
			8935	126.50	127.00	0.50		Tr.	1	Spec.	NIL	
			8936	127.00	127.50	0.50					0.03	
127.50	128.50	**SYENITE PORPHYRY** Massive, brick red syenite porphyry comprised of 3-5% subhedral, buff-white to vitreous plagioclase phenocrysts in an aphanitic matrix. Phenocrysts are typically stubby laths to subrounded in appearance and range from 1-5 mm in length. Scattered, angular mafic xenoliths. Unit has a relatively strong internal fracturing which consists of quite irregular hairline fractures infilled with chlorite and occasionally small pyrite grains. Non-magnetic. Lower contact extremely sharp hairline crack @ 75° tca.										
		128.45 A 10 cm wide, pink quartz + calcite vein.	8937	127.50	128.00	0.50					NIL	
			8938	128.00	128.50	0.50			2		NIL	
128.50	130.20	**HORNBLENDE-FELDSPAR PORPHYRY** Massive, medium grained, dirty red-brown-green, non-magnetic, very unique and identifiable unit. Lower contact is a chloritic, sharp hairline crack @ 45° tca. Comprised of four distinct crystalline phenocryst forms: 1.) 5% dark green, acicular to lath-shaped needle crystals and small crystal masses of chloritized hornblendes, from 1-4 mm in size. In places these needles show sub-parallel alignment but also display random orientations. 2.) 5% subhedral, rectangular, light grey-brown, feldspar crystals from 0.5-3 mm. 3.) 2-3% light grey to white, subhedral, round to rectangular plagioclase phenocrysts from 2-5 mm. 4.) 1-2% pink-white, stubby, rectangular to pseudo-hexagonal to lath-shaped feldspar eyes from 3 mm - 1 cm in size. These phenocrysts are pink-red and white spotted, poikilitic and have sharp crystal outlines. Crystals are pink-red potassium feldspar with small milk-white spots internally which gives these phenocrysts a poikilitic	8939	128.50	129.00	0.50					NIL	
			8940	129.00	129.80	0.80					0.02	
			8941	129.80	130.20	0.40					0.02	

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HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		texture. Appears to be albite interstitial to potassium feldspar background and in places a moderate crystal cleavage is developed. Frequently has red hematitic dusting. Groundmass is a dirty green-brown, aphanitic mush which appears to be moderately sericitized and is quite soft.											
130.20	131.35	**SYENITE PORPHYRY** Massive, brick red syenite with 3-5%, subhedral plagioclase phenocrysts from 1-4 mm, in an aphanitic, dark red, syenitic, hematitic groundmass. Frequently phenocrysts have red hematitic dusting. 1% scattered, angular, mafic xenoliths, up to 3-4 cm. Weak, internal, chloritic fracturing. Non-mineralized and undeformed. Lower contact is 2 cm wide, chlorite + sericite + quartz + calcite shear @ 60° tca.	8942 8943	130.20 130.80	130.80 131.35	0.60 0.55		 Tr.	 Tr.			0.02 0.01	
131.35	134.00	**HORNBLENDE-FELDSPAR PORPHYRY** Lower contact is a sharp, wavy, 1 mm wide, chloritic slip, @ 20° tca.											
		131.35 - 132.10 Unit is bleached, altered, with strong internal fracturing and hairline sutures, infilled with chlorite ± quartz and trace fine grained pyrite. Unit is pervasively sericitized light green with buff-brown phenocrysts, 1-4 mm, readily apparent in altered groundmass. Very hard though as if baked by surrounding syenite porphyry: i.e. syenite porphyry post-dates this unit.	8944	131.35	132.10	0.75		Tr.	Tr.		Sil.	0.02	
		132.10 - 134.00 Massive, medium grained, hornblende-feldspar porphyry as at 128.50-130.20 m.	8945 8946	132.10 133.00	133.00 134.00	0.90 1.00						0.04 0.03	
134.00	142.00	**SYENITE PORPHYRY** Massive, brick red syenite with 3-4%, subhedral, white plagioclase phenocrysts, 1-5 mm, in an aphanitic, hematitic groundmass. 1% scattered, angular mafic xenoliths. Phenocrysts frequently and coated with red hematitic stain. Massive, homogeneous. Moderate patchy magnetics.											
		134.40 - 134.70 Green spotted dyke or possible large xenolith. Dirty green-brown, aphanitic, sericitized groundmass with 5-7% dark green-black, acicular to lath-shaped, chloritized amphibole (hornblende) crystals from 1-5 mm and 1-2% buff-brown, altered, euhedral feldspar laths to 3 mm. Pervasively sericitized. Sharp contacts @ 80° tca. Upper	8947 8948	134.00 134.40	134.40 134.70	0.40 0.30		 1	 3	 50		NIL 0.15	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		contact intruded by 1 cm wide, white-brown, quartz ± albite, carbonate vein with 2% small, euhedral pyrite within vein and proximal to vein wall.											
		135.10 - 135.20 Sharp chloritic slip @ 35° tca. Porphyry is bleached, yellow-green and sericitic up to 7 cm from vein and is cut by small quartz + sericite slips with very fine grained pyrite on slips. Pyrite, 1-2%, also occurs as small euhedral grains dispersed around slips and up to sericite alteration front.	8949	134.70	135.20	0.50		0.5	1	1		0.07	
			8950	135.20	136.00	0.80		Tr.				0.02	
			8951	136.00	137.00	1.00						NIL	
			8952	137.00	138.00	1.00						NIL	
			8953	138.00	139.00	1.00						0.03	
			8954	139.00	140.00	1.00						0.01	
			8955	140.00	141.00	1.00						NIL	
			8956	141.00	141.50	0.50						0.02	
			8957	141.50	142.00	0.50		Tr.	1		Spec.	0.12	
142.00	148.60	**HORNBLENDE-FELDSPAR PORPHYRY** Massive, medium grained with 5% acicular, chloritized hornblende, 0.5-3 mm, 5-7%, grey-white, subhedral to subrounded plagioclase, 1-4 mm and 1-2%, pink-white, rectangular to prismatic feldspar crystals. Potassium feldspar, 4 mm -1 cm, in a very fine grained to aphanitic, dirty green-brown groundmass. Non-mineralized and non-magnetic. Lower contact sharp, wavy, chloritic slip @ 45° tca.	8958	142.00	142.50	0.50						NIL	
			8959	142.50	143.00	0.50						0.06	
			8960	148.00	148.60	0.60						0.09	
148.60	157.00	**SYENITE PORPHYRY** Massive, brick red, hematitic, fine grained syenite. Weakly porphyritic with 3-4% anhedral, white feldspar phenocrysts, up to 4 mm, avg 1-2 mm, in an aphanitic, red groundmass. Within groundmass are 2-3% pale green, very fine grained, altered, chloritized mafic mineral crystals and small masses up to 2 mm, possibly altered augite. Plagioclase phenocrysts are typically dusted with hematite. Strong hematite on fractures and as small veinlets. Unit is strongly magnetic. 1% scattered, angular mafic xenoliths, up to 7 cm. Unit contains trace fine grained disseminated pyrite throughout, generally on fine micro-fractures. Lower contact is a somewhat irregular chlorite + quartz + calcite shear, 2 cm wide, @ 15° tca.	8961	148.60	149.25	0.65						0.03	
			8962	149.25	150.00	0.75						0.01	
			8963	150.00	151.00	1.00						0.02	
			8964	151.00	152.00	1.00						0.02	
			8965	152.00	153.00	1.00						0.02	
			8966	153.00	154.00	1.00						NIL	
			8967	154.00	155.00	1.00						0.05	
			8968	155.00	156.00	1.00						0.01	
			8969	156.00	156.50	0.50						0.05	
			8970	156.50	157.10	0.60		Tr.	2		Chl.	0.15	
157.00	188.70	**HORNBLENDE-FELDSPAR PORPHYRY** Massive, medium grained, dark grey-brown, mafic porphyry. Comprised of: 1) 2-5% fine, black, chloritized, acicular hornblende, 0.5-3 mm long, 2) 5% milk white, subhedral plagioclase phenocrysts, 2-5 mm, 3) 1-2% coarse, sub to euhedral, pink-white, poikilitic potassium feldspar phenocrysts, (laths, rectangular to hexagonal), from 3 mm to 1 cm long. These coarse phenocrysts have white albite spots internally and in places appear to be												

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		porphyritic but may represent exsolution, 4) Groundmass is very fine grained to aphanitic, dark green-brown and quite mafic in appearance. In places appears to be fine biotite development in matrix. Massive, homogeneous with patchy, strong magnetics. Contains 1-2%, fine calcite-filled fracturing. 1% scattered, angular, black mafic xenoliths, up to 2 cm. Lower contact sharp, @ 40° tca, looks intrusive, very abrupt but no chilling, etc.	8971	157.10	157.90	0.80		Tr.	Tr.			0.07	
			8972	157.90	158.50	0.60						0.01	
			8973	158.50	159.00	0.50						0.05	
			8974	174.00	174.50	0.50						0.01	
		174.50 Fault @ 55° tca. Chlorite + hematite + calcite. 1 cm wide, open, vuggy, chlorite + hematite shear infilled with white-pink calcite.	8975	174.50	175.20	0.70						0.02	
		175.40 - 175.50 Fault @ 25° tca. Chlorite + quartz + calcite ± hematite. Open, vuggy, quartz + calcite veining on sharp chloritic slips. Interstitial material is sheared host rock with chlorite ± hematite foliation developed. Spotted, biotite + hematite alteration on down hole side, 5-6 cm wide.	8976	175.20	175.70	0.50			2-3		Bio.	0.05	
			8977	175.70	176.50	0.80						0.02	
			8978	176.50	177.50	1.00						0.02	
			8979	177.50	178.00	0.50			Tr.			0.04	
			8980	178.00	178.50	0.50						NIL	
		178.60 Two, 1 cm wide, open, vuggy, chlorite + calcite ± hematite slips @ 50-60°	8981	178.50	179.00	0.50			1			NIL	
		178.70 Two, 1 cm wide, open, vuggy, chlorite + calcite ± hematite slips @ 50-60° tca.	8982	179.00	180.00	1.00						NIL	
		180.00 - 188.70 Unit is weakly bleached, light grey-green and seems to contain a few more mafic xenoliths.	8983	180.00	181.00	1.00						NIL	
			8984	181.00	182.00	1.00						0.06	
		182.40 - 182.90 Yellow-green , sericitic, chloritic fractured zone. Upper and lower contacts are marked by 0.25 cm wide, white-pink quartz + calcite veinlets @ 80° tca. Trace chalcopyrite in 1%, 0.2-4 cm wide, quartz + calcite veins. < 0.5% finely disseminated pyrite in altered syenite.	8985	182.00	183.00	1.00		<0.5	1	20	Tr. Cp.Chl.	2.48	2.30
		182.65 - 182.70 Quartz + calcite vein @ 80° tca with 10% wall rock inclusions and 10% late irregular white albite veining. 1% very fine grained disseminated pyrite in wall rock inclusions and in wall rock up to 2 cm from the vein contacts. Trace chalcopyrite.	8986	183.00	184.00	1.00						0.03	
			8987	184.00	185.00	1.00						0.01	
			8988	185.00	186.00	1.00						0.30	
			8989	186.00	187.00	1.00						0.02	
			8990	187.00	187.60	0.60						0.37	
			8991	187.60	188.10	0.50			1			0.07	
			8992	188.10	188.70	0.60						0.01	
188.70	191.80	**SYENITE PORPHYRY** Hematitic, massive, brick red, coarse syenite porphyry comprised of 5-10%, sub to euhedral, white plagioclase phenocrysts from 2 mm to 1 cm long. These phenocrysts are lath- shaped to rectangular and hexagonal, have	8993	188.70	189.50	0.80		Tr.				0.23	
			8994	189.50	190.00	0.50		Tr.				0.30	
			8995	190.00	190.50	0.50		0.5	1			0.81	

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DIAMOND DRILL LOG

HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		sharp grain boundaries and are frequently dusted with hematite. In places red-brown cores are evident, which may represent some primary zonation. Groundmass is dark red, very fine grained and contains 2-3%, dark green, irregular, mafic, chloritized anhedral augite minerals and small clusters, to 2-3 mm. Trace pervasive, fine, grained scattered pyrite clots with black chlorite rims, clots ≤ 1 cm.	8996	190.50	191.00	0.50		Tr.	Tr.			0.73	
			8997	191.00	191.45	0.45		Tr.	Tr.			0.23	
			8998	191.45	191.80	0.35		0.5	1-2			0.11	
191.80	192.70	**HORNBLENDE-FELDSPAR PORPHYRY** Deformed, silicified hornblende-feldspar porphyry with quartz + pyrite breccia veins. Fractured, silicified fault-bounded unit. Primary, coarse, euhedral feldspar phenocrysts, to 1 cm and finer hornblende and plagioclase phenocrysts which are still evident in a bleached, brown to buff, aphanitic groundmass. Entire section is pervasively silicified and sericitized.												
		191.80 - 191.92 Brecciated wall rock fragments in a micro-fractured, silicified matrix, with 3-5%, fine, sub-euhedral pyrite on sericitic sutures and disseminated throughout wall rock. Contacts are sharp, tight, chloritic slips @ 60° tca.	8999	191.80	192.20	0.40		2-3			Sil.	0.69	
		191.92 - 192.70 Silicified, fractured porphyry with wispy sericitic suturing and patchy zones of sub-euhederal pyrite, ≤ 1%. Lower contact is a strong, 3 cm wide, chlorite + calcite fault breccia.	9000	192.20	192.70	0.50		0.5			Sil.	0.03	
192.70	201.00	**SYENITE/SYENITE PORPHYRY** Massive, hematitic brick red porphyry as at 188.7-191.8, but is fine grained to weakly porphyritic as opposed to the coarse phenocrysts above. Contains 2-3%, subhedral, white plagioclase phenocrysts, from 1-3 mm, in a dark red, fine grained syenitic groundmass. Lower contact is sharp, irregular intrusive type @ 25° tca.												
			9001	192.70	193.15	0.45		Tr.	1	Tr.		0.02	
		193.15 - 193.30 Fault zone @ 55° tca. 1 cm wide, chloritic fault gouge. Below gouge is 4 cm wide, chlorite + quartz/calcite shear with trace pyrite on slips. Above vein is sericitized and silicified fractured hornblende-feldspar porphyry with nil to trace pyrite.	9002	193.15	193.50	0.35		Tr.	10	10		0.25	
		193.30 - 196.00 Syenite contains numerous, strong, chlorite ± hematite fractures and slips and 1-3%, irregular, wispy to spotty, sericite alteration. Trace scattered pyrite and 1-2%, barren quartz veinlets.	9003	193.50	194.00	0.50		Tr.	2	10		0.05	
			9004	194.00	195.00	1.00		Tr.	1	5		0.07	
			9005	195.00	195.50	0.50		Tr.	2-3	3-5		0.01	
			9006	195.50	196.00	0.50		Tr.	1-2	3-5		0.02	
			9007	196.00	197.00	1.00		Tr.				0.03	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			9008	197.00	198.00	1.00		Tr.			0.02	
			9009	198.00	199.00	1.00		Tr.			0.03	
			9010	199.00	200.00	1.00		Tr.			0.03	
			9011	200.00	201.00	1.00		Tr.			0.03	
201.00	225.15	**POLYMICTIC PEBBLE CONGLOMERATE** Massive, hematitic, dark green-brown with purple hues. Poorly sorted, framework supported with well rounded, syenite porphyry, leucite trachyte porphyry, mafic volcanics and jasper framework, 1-10+ cm. Very minor quartz. Lower contact is sharp, irregular intrusive type.										
		201.00 - 203.00 Unit is moderately altered and baked at contact with syenite.	9012	201.00	201.50	0.50					0.01	
			9013	201.50	202.00	0.50					0.06	
			9014	202.00	203.00	1.00					0.08	
		203.50 - 204.00 Small, very irregular syenite porphyry intruding sediment and has angular fragments and rounded pebbles included in it.	9015	203.00	204.00	1.00					0.19	
		208.40 Open, vuggy slip with euhedral specularite.										
			9016	223.00	224.00	1.00					0.04	
			9017	224.00	224.50	0.50					0.03	
			9018	224.50	225.15	0.65					0.03	
225.15	301.35	**SYENITE PORPHYRY** Massive, homogeneous, dark red-brown syenite with 5-10% subhedral, white, plagioclase phenocrysts, 1-5 mm, in a very fine grained, syenitic groundmass which has 1-2% spotty and wispy sericite development. Non-deformed, pervasively hematitic. Non-magnetic and has characteristic 1% angular, mafic xenoliths, ≤ 7 cm, which are frequently moderately sericitized. Unit carries trace ubiquitous pyrite, as fine grained sub to euhedral grains. Typically has 0.5% barren, white, quartz veinlets and 1% hairline, chloritic ± hematitic fracturing.	9019	225.15	226.00	0.85		Tr.			0.02	
			9020	226.00	227.00	1.00		Tr.			0.03	
			9021	227.00	228.00	1.00		Tr.			0.02	
			9022	228.00	229.00	1.00		Tr.			0.07	
			9023	229.00	230.00	1.00		Tr.			0.05	
			9024	230.00	231.00	1.00		Tr.			NIL	
			9025	231.00	232.00	1.00		Tr.			0.05	
			9026	232.00	233.00	1.00		Tr.			0.06	
			9027	233.00	234.00	1.00		Tr.			0.05	
			9028	234.00	235.00	1.00		Tr.			0.04	
			9029	235.00	236.00	1.00		Tr.			0.01	
			9030	236.00	237.00	1.00		Tr.			0.02	
			9031	237.00	238.00	1.00		Tr.			0.06	
			9032	238.00	239.00	1.00		Tr.			0.08	
			9033	239.00	239.50	0.50		Tr.			0.12	
		239.70 Minor, blebbly chalcopyrite in quartz + chlorite veinlet and hairline fracture, 1-5 mm wide.	9034	239.50	240.00	0.50		Tr.	Tr.	Cpy.	1.41	1.51

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			9035	240.00	241.00	1.00		Tr.				0.03	
			9036	241.00	242.00	1.00		Tr.				0.05	
			9037	242.00	243.00	1.00		Tr.				0.06	
			9038	243.00	244.00	1.00		Tr.				0.12	
			9039	244.00	245.00	1.00		Tr.				0.03	
			9040	245.00	246.00	1.00		Tr.				0.12	
			9041	246.00	246.80	0.80		Tr.				0.39	
			9042	246.80	247.30	0.50		0.5	1	10		0.32	
			9043	247.30	248.00	0.70		Tr.	1	5-7		0.38	
			9044	248.00	248.50	0.50		Tr.	Tr.			0.13	
			9045	248.50	249.00	0.50		Tr.	Tr.		Spec.	0.31	
			9046	249.00	249.80	0.80		Tr.	Tr.			0.31	
		249.90 - 250.30 Two, 0.5-1 cm wide, quartz + albite veins @ 20° tca with 1% sub to euhedral pyrite grains on vein boundaries. Clotty to spotty pyrite often with dark rims of specularite ± chlorite. Also 0.5%, semi-massive chalcopyrite clots on thin chlorite fractures.	9047	249.80	250.30	0.50		1	2	Tr.		0.41	
			9048	250.30	251.00	0.70		Tr.				0.35	
			9049	251.00	252.00	1.00		Tr.				0.18	
			9050	252.00	253.00	1.00		Tr.				0.03	
			9051	253.00	254.00	1.00		Tr.				0.07	
			9052	254.00	255.00	1.00		Tr.				0.21	
			9053	255.00	256.00	1.00		Tr.				0.02	
			9054	256.00	256.50	0.50		Tr.				0.08	
		256.50 - 256.90 Quartz stockwork. 5% white-buff, quartz + albite veinlets, 0.5-1 cm wide, @ 20° and 45° tca, crosscutting each other. Veins have light grey-buff, quartz-walls and milk-white albite cores. Within vein are ≤ 0.5% small, "spidery", blue-grey galena fracture-fillings, up to 2 mm wide. 1-2% subhedral spotty pyrite disseminated through wall rock and within vein system, and proximal within fine, hairline sericitic sutures in wall rock.	9055	256.50	257.00	0.50		2	5	10		0.37	
			9056	257.00	257.50	0.50		Tr.	Tr.			0.03	
			9057	257.50	258.00	0.50		Tr.				0.01	
			9058	258.00	259.00	1.00		Tr.				NIL	
			9059	259.00	259.60	0.60		Tr.				NIL	
		259.70 - 259.85 Quartz stockwork. 5-10%, grey to cream, quartz + albite breccia veinlets with angular, sericitized porphyry fragments, ≤ 0.5 cm, included in vein material. Veinlets are very irregular stockworking mass, up to 5 cm wide, where veins coalesce. Trace 0.5% fine euhedral pyrite and minor spotty specularite grains. Host rock is moderately well fractured to pseudo-brecciated. Infilled with chlorite ± quartz.	9060	259.60	260.10	0.50		Tr.-0.5	10	15		0.32	
			9061	260.10	260.70	0.60		Tr.-0.5	2	5-7		0.34	
			9062	260.70	261.50	0.80		Tr.				0.04	
			9063	261.50	262.00	0.50		Tr.				0.06	
			9064	262.00	263.00	1.00						0.05	
			9065	263.00	264.00	1.00						0.29	
		275.00 - 301.35 Syenite is massive, medium grained with 10-15% subhedral, white plagioclase phenocrysts, 1-3 mm, randomly oriented in a fine grained, dark red, syenitic matrix.											

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-37

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		295.95 Fault @ 65° tca. Chlorite + quartz + calcite. 1.5 cm wide, laminated quartz + calcite + chlorite vein with sharp, strong chlorite slip walls. Trace spotty pyrite in vein material.	9066	297.00	298.00	1.00					NIL	
			9067	298.00	299.00	1.00					0.06	
			9068	299.00	300.00	1.00					0.07	
		300.10 - 300.13 Quartz + sericite + specularite veining @ 80° tca. 0.5 cm wide and 1 cm wide, quartz ± albite veins situated in moderately sericitized, micro-fractured syenite with sharp, hairline, chloritic slips. Quartz veinlets are internally fractured and contain sericite + specularite. Trace pyrite grains on fractures external to vein.	9069	300.00	300.50	0.50		Tr.	3	5-7	NIL	
			9070	300.50	301.35	0.85					0.05	
	301.35	**END OF HOLE** Casing left in hole.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 23, 1991 - October 4, 1991	**EASTING**	8189.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10384.3
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	333.0
STARTED	September 22, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	October 3 , 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	619.10
				UNITS	metres
PURPOSE	To test "102" and "103" structures.			**CORE SIZE**	NQ
COMMENTS	"103" gold zone @ 387.35 - 390.10, 2.75 m "102" gold zone @ 546.90 - 578.16, 31.26 m	**SIGNED BY**	(W. Benham)		

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION
0.00	1.50	**OVERBURDEN**
1.50	33.50	**ASH/LAPILLI TUFF**
33.50	55.40	**LAPILLI TUFF**
55.40	84.40	**LAPILLI TUFF** Monolithic
84.40	112.70	**LAPILLI TUFF/SILTSTONE**
112.70	135.55	**LAPILLI TUFF**
135.55	144.00	**LAPILLI TUFF/CONGLOMERATE**
144.00	241.50	**GRAYWACKE**
241.50	261.90	**CONGLOMERATE** Foliated @ 30° tca.
261.90	299.40	**LAPILLI TUFF**
299.40	320.90	**GRAYWACKE**
320.90	357.70	**CONGLOMERATE**
357.70	369.05	**LAPILLI TUFF**
369.05	398.90	**CONGLOMERATE** 381.50 - 390.00 Foliated @ 30° tca, sericite. 389.70 - 390.00 Fault @ 55-60° tca, 25% quartz, 1% pyrite.
398.90	420.30	**SILTSTONE/MUDSTONE**
420.30	427.90	**CONGLOMERATE**
427.90	433.40	**GRAYWACKE** 431.30 1 cm quartz + pyrite vein.
432.80	432.90	Chlorite + quartz + pyrite breccia vein.
433.40	441.60	**CONGLOMERATE/GRAYWACKE/MUDSTONE**
441.60	451.80	**LAPILLI TUFF** Sericitic
451.80	459.30	**ASH TUFF** Hematitic
459.30	469.50	**LAPILLI TUFF** Sericitic
469.50	545.00	**LAPILLI TUFF** Zones of hematite, sericite and chlorite alteration.
545.00	560.10	**LAPILLI TUFF** Sericitic, foliated @ 35-40° tca. 546.95 - 547.30 Sericite + pyrite + quartz vein @ 30-40° tca. 547.80 - 548.37 Sericite + pyrite + quartz vein @ 30° tca. 559.20 - 559.55 sericite + pyrite + quartz vein @ 35° tca.
560.10	564.10	**CONGLOMERATE/GRAYWACKE** Sericitic
564.10	583.10	**LAPILLI TUFF** Sericitic, foliated @ 30° tca.

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
387.35	390.10	2.75	0.41
including			
389.50	390.10	0.60	1.14
546.90	552.00	5.10	1.97
including			
546.90	547.35	0.45	8.18
559.60	560.60	1.00	0.33
566.50	567.00	0.50	0.29
568.80	573.50	4.70	0.20
577.60	578.60	1.00	2.66
including			
578.10	578.60	0.50	4.55

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 23, 1991 - October 4, 1991	**EASTING**	8189.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10384.3
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	333.0
STARTED	September 22, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	October 3 , 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	619.10
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test "102" and "103" structures.

COMMENTS "103" gold zone @ 387.35 - 390.10, 2.75 m
"102" gold zone @ 546.90 - 578.16, 31.26 m

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table at end of summary log for downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION
		564.10 - 564.40 0.5% pyrite 566.70 - 566.80 Foliated tuff with 1% pyrite and 2 cm quartz + albite vein @ 30° tca with 2% pyrite and trace galena. 571.15 - 571.25 Sericite + pyrite + quartz vein @ 30° tca. 573.15 - 573.40 Fault zone @ 35-50° tca 1-2% pyrite, 1-2% quartz veins. 574.75 1 cm quartz + pyrite vein @ 45° tca. 577.70 - 578.55 Sericite + quartz + pyrite zone @ 35° tca.			
583.10	619.10	**LAPILLI TUFF** Hematitic			
	619.10	**E. O. H.**			

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t
579.10	579.60	0.50	0.13
581.00	581.50	0.50	0.23

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

PROPERTY	Amalgamated Kirkland	**DATE LOGGED**	September 23, 1991 - October 4, 1991	**EASTING**	8189.1
TOWNSHIP	Teck	**LOGGED BY**	Mark Masson	**NORTHING**	10384.3
CLAIM No.	L 491662, L 491663	**DRILLED BY**	Heath & Sherwood	**ELEVATION**	333.0
STARTED	September 22, 1991	**CORE LOCATION**	Kirkland Lake Warehouse	**COLLAR SURVEY**	Northland Technical
COMPLETED	October 3 , 1991	**DOWNHOLE SURVEYOR**	B.M.C.I.		
		SURVEY INSTRUMENT	Tropari	**LENGTH**	619.10
				UNITS	metres
				CORE SIZE	NQ

PURPOSE To test "102" and "103" structures.

COMMENTS "103" gold zone @ 387.35 - 390.10, 2.75 m
"102" gold zone @ 546.90 - 578.16, 31.26 m

SIGNED BY _____
(W. Benham)

Depth	Method	Azimuth	Dip
Note:	See table below for all downhole surveys		

SUMMARY LOG

INTERVAL From	To	DESCRIPTION	INTERVAL From	To	DESCRIPTION

Depth	Method	Azimuth	Dip
Collar	Compass	161	74
5.0			74
30.0			74
60.0			74
90.0			73
100.0	Tropari	160	72
122.0			73
150.0			72
183.0			72
213.0			71
243.0			69

Depth	Method	Azimuth	Dip
275.0	Tropari	160	69
275.0	Acid		69
305.0			69
335.0			69
365.0			68
400.0			67
425.0			66
455.0			66
488.0			64
518.0			63
548.0			61

ASSAY SUMMARY

INTERVAL From	To	LENGTH in metres	AVERAGE Au g/t

Depth	Method	Azimuth	Dip
580.0			60
610.0	Tropari		60

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

INTERVAL		DESCRIPTION	SAMPLE								ASSAYS	
FROM	TO		No.	From	To	Length	%Rec	%Py	%QV	%Ser	Au, g/t	Au,Check
0.00	1.50	**OVERBURDEN**										
1.50	33.50	**ASH/LAPILLI TUFF** Chloritic, massive to poorly bedded, fine grained dark grey-green ash tuff with very dark mafic appearance. Comprised of very fine grained, well sorted heterolithic clasts consisting of approximately 10-15% red-pink trachyte/syenite fragments in a dark aphanitic groundmass. Finely interdigitated with lapilli tuff horizons up to 1 metre wide which generally display gradational contacts and are comprised of 5-7% angular to sub-rounded red-pink to grey lapilli clasts, 0.5-5 cm, in the fine grained ash matrix. Moderately to strongly magnetic. Cut by 1-2% low angle, 0-30°tca, barren, white-pink quartz ± albite ± calcite veinlets, up to 1 cm wide, associated with late cross-faulting. Lower contact of unit gradational over 0.5 metre.										
		11.50 Sharp, tight chlorite + sericite slip with 3 cm of ankerite stained wall rock. Slip @ 25° tca.										
		14.40 - 14.60 10 cm wide white quartz ± albite + calcite breccia vein with angular included wall rock fragments, ≤ 1.5 cm, centred on two sharp strong chloritic slips @ 25° tca. Barren, non-mineralized, moderate ankeritic staining, open vuggy cross fault.										
		23.50 - 30.00 Massive, dark grey-green, heterolithic lapilli tuff horizon with gradational contacts over 1 metre. Comprised of 5-7% angular lapilli clasts, 0.5-1.5 cm, floating in very fine grained massive ash. Clasts are light grey to green to pink-brown.	9071	26.00	27.00	1.00			1			0.02
			9072	27.00	27.60	0.60						0.02
			9073	27.60	28.30	0.70				Hem Ser		0.01
		28.30 - 28.90 Fault zone @ 40° tca. Chlorite + sericite + quartz + ankerite.	9074	28.30	29.00	0.70			2-3	35 Ank.		0.01
		28.60 - 28.75 Strong, 1 mm-0.5 cm wide, chlorite ± mud gouge slips with 0.5-1 cm wide, buff-pink quartz + calcite veinlets interstitial to slip planes.										
		28.30 - 28.90 Unit is strongly ankerite stained with numerous tight sericitic slips and micro-fractures. Cross fault type.										
			9075	29.00	29.50	0.50						0.02
			9076	29.50	30.50	1.00						0.01
		32.00 Well developed bedding @ 60° tca ranging 2-3 mm to 2-3 cm wide.										

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
33.50	55.40	**LAPILLI TUFF** Chlorite + hematite. Massive, dark grey-green to purple-maroon, where pervasively hematitic. Poorly sorted, heterolithic lapilli tuff comprised of 5-15% angular to subrounded lapilli clasts from 2 mm -7 cm, in a fine grained, lithic ash matrix. Clasts are 65% red-brown, fine grained to porphyritic, trachyte + syenite. Remaining 35% of lapilli clasts are dark green to black and light grey to buff trachytes in roughly equal proportions. Matrix is of equivalent composition as framework. Unit is somewhat variable in matrix:clast ratio and is intimately interdigitated with narrow ash tuff horizons up to 1 metre wide. Moderately to strongly magnetic, undeformed and cut by 1-2% irregular white-pink calcite ± quartz veinlets generally at low angles to core axis. Frequently small spots of hematite + specularite are visible in late veinlets. 48.70 1.5 cm calcite + quartz veinlet with sharp strong chloritic slip boundaries @ 65° tca. 52.75 - 52.80 Fault @ 60° tca. Sericite + chlorite + calcite. Strong chloritic mud slip, open and vuggy, 3 mm wide, with foliated sericitic wall rock. Moderate pervasive calcite. 55.40 Appears to be a sharp, intact contact @ 75° tca.									
55.40	84.40	**LAPILLI TUFF** Massive, undeformed dark green lapilli tuff very similar to above unit but is predominantly monolithic with 90-95% of clasts being red-brown, fine grained to porphyritic trachyte + sericite in a fine grained chloritic lithic ash matrix. Fragments are angular to subrounded, 2 mm -5 cm, avg 1 cm, and comprise 3-20% of unit. Unit displays a crude grading from 55.40-56.50 metres, fine---->coarse, where unit consists of 2-4%, ≤ 0.5 cm, red trachyte clasts gradually increasing in size and abundance to 5-20% and up to 3-5 cm in size. Equivalent to monolithic blocky tuffs. Strongly magnetic. Lower contact of tuff is sharp, somewhat irregular @ 25° tca. 78.30 - 79.60 Massive, very fine grained grey-green crystal tuff horizon comprised of 10-15% fine euhedral crystals and crystal fragments, ≤ 1 mm, which are light grey-white to green feldspar and/or augite. Groundmass is dark green aphanitic. Very strongly magnetic, quite hard. Upper contact very sharp and somewhat irregular and interfingered. Contains minor scattered angular lapilli clasts. Lower contact is sheared and silicified.	9077 9078 9079 9080 9081	76.00 77.00 77.50 78.30 79.00	77.00 77.50 78.30 79.00 79.60	1.00 0.50 0.80 0.70 0.60				0.01 0.01 0.01 NIL 0.01	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		79.60 - 80.00 Sheared, silicified contact zone. Chlorite + sericite + quartz + hematite.	9082	79.60	80.10	0.50			10	Sil.	0.01	
		79.60 - 79.85 Fractured silicified tuff with a prominent fracture cleavage @ 60° tca which are infilled with quartz ± calcite + hematite. This 60° fabric is cut by a later quartz ± calcite + hematite fracture slip set @ 25° tca.										
		79.85 - 79.90 Strongly sheared chloritic fault with 1 cm wide quartz + calcite vein. Pervasively silicified, non-mineralized.	9083	80.10	81.00	0.90					NIL	
			9084	81.00	82.00	1.00					0.01	
84.40	112.70	**LAPILLI TUFF/SILTSTONE** Chloritic, massive, medium green, heterolithic lapilli tuff with intercalated and interfingered, aphanitic siltstone horizons, up to 2 m wide and as thin as a few centimetres wide. Lapilli tuffs are deformed, poorly sorted matrix supported with 5% angular, heterolithic clasts, 2 mm-5 cm, in a very fine grained chloritic matrix. Very minor quartz and jasper are evident within matrix representing gradational sedimentary and volcanic mixing. Gritty texture to matrix, grading to graywacke. Lapilli clasts are predominantly of two types: 1) Pink-brown spotted trachyte, 2) Light grey to buff, fine grained to porphyritic trachyte. Minor dark green mafic clasts. Contains 2% irregular, barren white quartz veinlets.											
		91.40 - 93.40 Dark green, finely banded aphanitic siltstone with sharp, undeformed sedimentary bedding contact @ 25° tca. Minor lapilli tuff beds up to 2 cm wide. In places bedding is somewhat wispy, convoluted and very irregular.	9085	104.00	105.00	1.00		1-2	Tr.		0.01	
			9086	105.00	106.00	1.00		1	5		0.01	
		106.00 - 109.00 Numerous, strong chloritic mud slips and shears @ 35-50° tca which have strongly foliated sericitized wall rock and frequently carry barren, white-buff quartz ± calcite veining.	9087	106.00	107.00	1.00		3-5	15		0.01	
		107.40 Strong 1 cm wide, chloritic mud gouge slips with strongly foliated sericitized wall rock alteration and deformation up to 25 cm from slips. Appears to be a late cross fault zone.	9088	107.00	108.00	1.00		1-2	10		0.01	
		108.10 Strong 1 cm wide, chloritic mud gouge slips with strongly foliated sericitized wall rock alteration and deformation up to 25 cm from slips. Appears to be a late cross fault zone.	9089	108.00	108.50	0.50		Tr.	20		0.01	
			9090	108.50	109.10	0.60		Tr.	15-20		0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		109.00 - 112.70 Strongly foliated to schistose with 10-20% wispy irregular sericitic and numerous sharp, strong chlorite + sericite slips @ 35° tca.	9091	109.10	110.00	0.90			Tr.	10	0.01	
			9092	110.00	111.00	1.00			Tr.	10-15	0.02	
			9093	111.00	112.00	1.00			Tr.	15-20	0.03	
			9094	112.00	112.70	0.70					0.01	
112.70	135.55	**LAPILLI TUFF** Chloritic ± sericitic, massive grey-green to mottled brown. Comprised of 5% angular, heterolithic lapilli clasts, 2 mm -2 cm, in a very fine grained white-green groundmass. Clasts are pink-brown, porphyritic, light grey and dark green fine grained trachyte, generally quite angular. In places unit has a snowflake texture due to milk white feldspar masses which are irregular and show no crystal form, floating in a very fine mottled groundmass. Unit displays a patchy, mottled sericite alteration of matrix where unit will have dirty yellow-brown alteration patches which are very irregular and have diffuse shadowy boundaries grading to unaltered dark green matrix. These patchy sericite alteration zones give unit distinctive mottled appearance. This alteration is evident proximal to small, ≤ 0.5 cm wide, quartz veinlets but also as discreet patches with no apparent veining. Displays moderate patchy magnetics. Non-mineralized and cut by 2% barren, white quartz ± albite.	9095	130.00	130.50	0.50			2-3	10	NIL	
			9096	130.50	131.00	0.50			1	25	NIL	
			9097	131.00	131.50	0.50			Tr.	15	NIL	
			9098	131.50	132.00	0.50			Tr.	3-5	0.01	
			9099	132.00	133.00	1.00			Tr.	1-2	NIL	
			9100	133.00	134.00	1.00			1	2-3	NIL	
			9101	134.00	135.00	1.00			1	2-3	0.01	
		135.00 - 135.55 Fault zone @ 40-60° tca. Sericite + chlorite + quartz. 0.5-1 cm wide strong chlorite + quartz breccia veinlets with sharp, chlorite slip boundaries @ 135.0, 135.35 and 135.55 m. Interstitial to these slips tuff is fractured to sheared with strong sericitization at faults grading to lesser deformed spotty sericitization in cores. Non-mineralized.	9102	135.00	135.60	0.60			5-7	25	NIL	
135.55	144.00	**LAPILLI TUFF** Chloritic, massive, poorly sorted, grey-green heterolithic tuff. Comprised of 3-5% matrix supported lapilli clasts which are angular to sub-rounded and range from, 2 mm to 15 cm, avg 2 cm. Clasts consist of salmon-pink, buff-brown and dark green trachytes and minor sedimentary siltstone and jasper clasts. Matrix is very fine grained, grey-green chloritic ash with traces of scattered jasper evident. Patchy moderate magnetics. Lower contact is a 3 mm wide chlorite + quartz slip @ 35° tca.	9103	135.60	136.50	0.90			Tr.		0.01	
			9104	141.00	142.00	1.00			1-2		0.01	
			9105	142.00	143.00	1.00			1		0.01	
		143.20 - 143.50 Fault zone @ 50° tca. Sericite + chlorite + quartz. Strongly foliated to sheared, sericitized tuff with sharp strong chlorite + quartz breccia slip contacts. Section	9106	143.00	143.50	0.50			10	25	NIL	
			9107	143.50	144.00	0.50				10-15	0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		carries 10-15% milk-white quartz ± albite veining and irregular internal sericitic suturing. Non-mineralized.											
		143.00 - 144.00 Surrounding tuff is bleached and sericitized.											
144.00	241.50	**GRAYWACKE** Massive, non-bedded, undeformed, light to dark green fine grained graywacke with a pervasive, weak spotty sericite. Comprised of very fine quartz and lithics in roughly equal proportions. Very clean, well sorted and contains minor scattered angular mudstone chips (yellow-green, aphanitic) and disrupted, fragmented mudstone beds up to 25 cm's. In places unit carries 3-4% rounded polymictic pebbles of mudstone, spotted trachyte and fuchsitic mafics (pebbly graywacke). Lower contact of unit is marked by abrupt increase in pebble content, not a sharp definite contact.											
		144.75 - 146.75 Unit is cut (pseudo-brecciated) by quartz ± albite + chlorite veining. Veins display zonation with chloritic walls and milk white to buff quartz ± albite cores. In places small angular wall rock (graywacke) fragments are evident within veins. Gives unit distinctive "crack and seal" texture. No visible mineralization.	9108	144.00	144.75	0.75						NIL	
			9109	144.75	145.40	0.65			5		Chl.	NIL	
			9110	145.40	146.00	0.60			1-2		Chl.	NIL	
			9111	146.00	146.75	0.75			2-3		Chl.	NIL	
		146.75 - 147.00 Fault @ 70° tca. Sericite + chlorite + quartz. 10-15% irregular white-buff quartz ± albite veinlets intruding sericitized graywacke. Strong 1 cm wide chlorite + sericite + quartz slip @ 147.0 m. Contains trace very fine grained pyrite.	9112	146.75	147.20	0.45		Tr.	10	20		0.01	
			9113	147.20	148.00	0.80			Tr.	Tr.		NIL	
			9114	148.00	149.00	1.00			1-2	5		0.01	
			9115	155.00	156.00	1.00				Tr.	Chl+Qtz 2%	NIL	
			9116	156.00	157.00	1.00			Tr.	Tr.-1		0.01	
			9117	157.00	157.80	0.80						NIL	
		158.00 Fault @ 20° tca. Chlorite + sericite + quartz. 3 cm wide chlorite + sericite shear with 10-15% fragmented, fractured and boudinaged quartz veining. Strong wispy internal sericitic fracturing.	9118	157.80	158.30	0.50		1	3	5		0.06	
			9119	158.30	159.00	0.70		Tr.	1	3-5		0.02	
		158.20 Small semi-massive (primary?) pyrite beds up to 0.5 cm wide @ 60° tca. Quite fine grained euhedral pyrite. Beds offset ≈ 0.5 cm sinistrally by a hairline fracture subparallel tca.											
			9120	159.00	160.00	1.00			1	3-5		NIL	
			9121	160.00	161.00	1.00			1	2-3		0.01	
		161.35 - 161.45 Fault @ 50° tca. Chlorite + sericite + quartz ± pyrite. Milk white fractured quartz veining with strong internal sericite + chlorite suturing with 1% fine pyrite on slip walls. Also some blebby pyritic clots in quartz chlorite veining adjacent to fault zone.	9122	161.00	161.50	0.50		Tr.	5	10		NIL	
			9123	161.50	162.00	0.50			Tr.	1-2		0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		178.45 Fault @ 65° tca. Sericite + quartz. Strong sericitic mud gouge walls with 1 cm wide, crushed, fractured sericite + quartz interstitial to slips.										
		184.55 - 184.70 Fault @ 60° tca. Sericite + chlorite + quartz. Strongly foliated to sheared, sericitized graywacke with a 3 cm wide brecciated quartz + chlorite + sericite vein in sharp chloritic slips.										
			9124	199.00	200.00	1.00					0.01	
			9125	200.00	200.80	0.80					NIL	
			9126	200.80	201.30	0.50			Tr.		0.01	
		201.50 Fault @ 30° tca. Sericite + chlorite + quartz. 3 mm wide, strong, grey, muddy slip with strong slickenside development. Up hole side has a 5 cm wide, fractured to brecciated quartz vein with strong internal sericitic suturing. Fault slip has trace smeared pyrite.	9127	201.30	201.80	0.50		Tr.	2-3	5-7	NIL	
			9128	201.80	202.80	1.00		Tr.			NIL	
		202.00 - 203.50 Few sporadic narrow, ≤ 5 mm wide pyritic beds (primary) @ 60-70° tca.	9129	202.80	203.50	0.70		Tr.			NIL	
		215.10 Sharp tight, 1-2 mm, chlorite + sericite slip @ 60° tca.										
		215.10 - 227.00 A 1-3 mm wide, open late fault @ 0-5° tca. Very irregular, wavy and oscillates in and out of core. Lined with quartz + calcite + chlorite. This fracture fault set displaces late barren quartz veinlets and appears to be quite late but it is also apparently truncated in places by faults at steeper core angles. Proximal to these fractures the graywackes are moderately sericitic with ubiquitous sericite spotting, wispy sericitic suturing, fracturing and sericitization of clasts or pebbles (ie mudstones and trachyte).											
		224.75 - 224.90 Broken rubbly fault zone with strong sharp sericitic slips with weak gouge developed and minor barren quartz veining.										
		229.25 - 229.40 Fault @ 55° tca. Sericite + quartz ± albite. White to buff, sheared, fractured, late barren quartz ± albite vein with sharp chlorite slip walls. Vein has a banded appearance due to chlorite + sericite lamellae and suturing (5%).										
241.50	261.90	**CONGLOMERATE** Massive to moderately foliated @ 30° tca. Poorly sorted, light grey-green polymictic pebble conglomerate. Varies from framework to matrix supported with 10-30% pebbles in a fine grained graywacke matrix. Pebbles										

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		are comprised of: 1) dark green, aphanitic mafic volcanics; 2) buff-grey to yellow-green aphanitic mudstone; 3) pink-brown to buff-green spotted trachyte and minor quartz and jasper. Note absence of any granitoid type fragments. Lower contact is a sharp hairline chlorite + quartz slip @ 35° tca.										
		246.90 - 247.15 Fault @ 15° tca. Chlorite + sericite + quartz. Strong, muddy chlorite + sericite slips and sericitization of wall rock. Fault zone carries 5% fractured broken milk white quartz ± albite pods and veins up to 1 cm wide.										
		257.35 - 257.50 Fault @ 50° tca. Chlorite + sericite + quartz. 4 cm wide, barren quartz ± albite vein in strongly foliated to sheared conglomerate with sharp chloritic slip planes.										
		258.00 - 260.50 Graywacke horizon with weak spotty sericite. Upper contact 2 mm wide chlorite + quartz + calcite slip @ 55° tca. Lower contact marked by pebble content.										
		263.90 - 266.00 Strong chlorite + quartz fracture/slip oscillates in and out of core @ 0-10° tca. Lined with grey-brown calcite.										
261.90	299.40	**LAPILLI TUFF** Chlorite + hematite. Massive, non-bedded, grey-green to purple where unit is more hematitic. Typically unit is bleached, sericitic ± chloritic near faults, slips and fractures and is more hematitic where less deformed. Unit is predominantly monolithic, comprised of 5-10% angular lapilli clasts from 3 mm to 5 cm (avg. 1-2 cm) in a very fine grained ash matrix. Clasts are 85% light grey to buff brown, very fine grained to spotted trachyte while remainder are dark green to black fine grained trachytes. Unit is weakly to non-magnetic. Lower contact of unit is weakly sericitic and marked by a tight, 1-2 mm, chlorite + sericite + quartz slip @ 45° tca.										
		274.30 Strong tight chlorite slip @ 20° tca.	9130	273.90	274.65	0.75		Tr.	10		NIL	
		274.20 - 274.65 Unit is strongly foliated with wispy sericite + chlorite and strong clast elongation.										
		274.65 - 275.20 Fault zone @ 60° tca. Chlorite + sericite + quartz. Upper contact is a 3 mm wide, strong chlorite slip.	9131	274.65	275.20	0.55		50	15		NIL	
		274.65 - 275.00 White-pink quartz vein with internal cross fracturing and chloritic suturing parallel to slip.										
		275.00 - 275.20 Strongly foliated to sheared sericitized tuff. Non-mineralized.	9132	275.20	276.00	0.80					NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		276.15 276.40 Two 0.5 cm wide, strong sharp chlorite + sericite ± quartz shears @ 50° and 40° tca respectively. Interstitial to these slips tuff is bleached and sericitic with a well developed internal fabric @ 20° tca (fragment elongation).	9133	276.00	276.50	0.50			Tr.	10	NIL	
			9134	276.50	277.00	0.50					NIL	
			9135	277.00	278.00	1.00					NIL	
			9136	278.00	278.50	0.50					NIL	
			9137	278.50	279.00	0.50			Tr.	2-3	NIL	
			9138	279.00	280.00	1.00					NIL	
			9139	280.00	281.00	1.00					NIL	
		281.20 - 281.30 Fault @ 50° tca. Chlorite + sericite + quartz. Strongly fractured and brecciated quartz veinlets (10%) within strongly sheared to fragmented chlorite + quartz + wall rock fragments groundmass. Strong, tight 1-2 mm chlorite slip walls.	9140	281.00	281.60	0.60			3-5	5-10	NIL	
			9141	281.60	282.15	0.55				Tr.	NIL	
			9142	291.00	292.00	1.00					0.01	
			9143	292.00	293.00	1.00					NIL	
			9144	293.00	293.70	0.70			Tr.	Tr.	NIL	
			9145	293.70	294.15	0.45			Tr.		NIL	
		294.15 - 294.50 Fractured white-cream quartz ± albite vein with strong internal sericitic fracturing and irregular suturing. Upper contact is tight sericitic slip while lower contact is sharp and irregular.	9146	294.15	294.60	0.45			60	10-15	NIL	
		294.15 - 294.60 Fault @ 75° tca. Quartz + sericite + chlorite.										
		294.60 - 295.00 Tuff is moderately sericitic and weakly deformed.	9147	294.60	295.10	0.50			Tr.	15	NIL	
			9148	295.10	296.00	0.90					NIL	
299.40	320.90	**GRAYWACKE** Massive, non-bedded very fine grained, grey-green. Well sorted, undeformed with approximately 35-40% fine rounded quartz grains evident in matrix with remainder being lithics. Pervasive weak spotty sericite. Minor scattered angular mudstone chips, very clean.										
		302.00 - 302.05 Fault @ 35° tca. Chlorite + quartz. Barren, fractured quartz vein with chloritic sutures on sharp, chloritic slips.	9149	312.00	313.00	1.00					NIL	
			9150	313.00	313.50	0.50			Tr.	Tr.	0.01	
		314.20 Fault slip @ 65° tca. Tight, hairline sericite + chlorite + quartz slip plane.	9151	313.50	314.20	0.70			Tr.	Tr.	NIL	
		314.20 - 314.70 Graywacke is cut by 3% barren white quartz stringers at all angles (≤ 1 cm). These veins have up to 2 cm wide, yellow-green sericite alteration halos giving graywacke a patchwork appearance.	9152	314.20	314.70	0.50		Tr.	5-7	10	NIL	
		315.35 Fault @ 50° tca. Chlorite + quartz + calcite. 1-2 cm wide rubbly broken fault with weakly developed fault gouge and infilled by vuggy pink quartz + calcite veinlets.	9153	314.70	315.35	0.65		1	5-7	25	NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		315.35 - 316.00 Graywacke is moderately sericitized and strongly fractured "crack and seal" by chlorite and chlorite + quartz slips and veinlets.	9154	315.35	316.00	0.65		Tr.	1	5	0.02	
		315.60 - 315.70 2% fine grained pyrite on irregular anastomosing chlorite slips and fracturing. Tight prominent hairline slips @ 30° tca with irregular braided pyrite stringers proximal to slip.	9155	316.00	316.50	0.50			2	3-5	NIL	
			9156	316.50	317.00	0.50					NIL	
			9157	317.00	318.00	1.00					NIL	
			9158	318.00	319.00	1.00					NIL	
			9159	319.00	320.00	1.00					NIL	
		320.70 - 321.00 Fault zone @ 50° tca. Chlorite + quartz. Strongly foliated to sheared contact zone with moderate mud gouge developed on chlorite slips with strongly sheared graywacke/conglomerate interstitial to slips.	9160	320.00	320.70	0.70			2-3	5	NIL	
320.90	357.70	**CONGLOMERATE** Massive, coarse, poorly sorted, framework supported polymictic pebble-cobble conglomerate. Pebbles range from 2-3 mm to 15+ cm in a grey-green chloritic graywacke matric. Lower contact of unit is sharp and somewhat irregular with ash tuff wrapping around polymictic pebbles.										
		320.90 - 322.00 Unit is moderately deformed and foliated @ 40° tca with a few strong chloritic shears up to 1 cm wide. Also cut by 3% milk white, irregular quartz ± albite veining with very minor, spotty pyrite.	9161	320.70	321.20	0.50			5	15	NIL	
			9162	321.20	322.20	1.00		Tr.	3	10	NIL	
			9163	322.20	323.00	0.80					NIL	
			9164	323.00	324.00	1.00					0.01	
			9165	324.00	325.00	1.00					0.06	
		345.35 - 346.00 Diabase dyke. Massive very fine grained, light green with 0.5 cm wide chilled margins. Contacts are chlorite + quartz + calcite slips @ 20° tca.										
		351.60 Fault @ 40° tca. Chlorite + sericite. 5 cm wide, moderately strong chlorite + sericite schist. Contains minor boudinaged quartz ± calcite pods.										
		353.80 Fault @ 60° tca. Strong, sharp, dry sericitic mud gouge shear.										
357.70	369.05	**LAPILLI TUFF** Chloritic + sericitic. Massive, light grey-green, predominantly monolithic lapilli tuff. Comprised of 5-10% angular, buff-grey to brown, very fine grained, moderately sericitized trachyte(?) fragments from 2-3 mm to 10 cm (avg 2 cm) in a very fine grained grey-white matrix. Also contains 1%										

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		dark green aphanitic angular clasts (mafic volcanics?) up to 4 cm (avg 0.5-1 cm) scattered throughout. Occasionally these clasts are altered to sericite ± fuchsite. Unit is massive, undeformed and non-magnetic.										
		365.00 - 369.00 1-2%, well rounded, polymictic pebbles of quartz, mudstone, trachyte and minor porphyry. Pebbles, from 0.5 cm to 8 cm, are inter-mixed with angular lapilli clasts. Matrix also appears to be gradually increasing in quartz and lithics content, i.e. grading to graywacke.										
		368.00 - 369.00 Unit is intruded by 10%, massive barren bull white quartz ± albite veins and stringers up to 7-8 cm wide.										
		369.00 - 369.05 Fault @ 45° tca. Sericite + calcite. Sharp, strong, weakly muddy break, minor quartz + calcite smearing on slips.										
369.05	398.90	**CONGLOMERATE** Massive, undeformed light grey-green, matrix supported, pebble poor, polymictic conglomerate. Comprised of 5% sub-angular to very well rounded pebbles of quartz, quartzite, mafic volcanics, mudstones, trachytes and jasper randomly oriented. Matrix is very fine grained, grey-white lithic graywacke. Pebbles range from 0.5 cm to 10 cm. Lower contact of unit is a regular sharp sedimentary contact @ 30° tca.	9166	379.00	380.00	1.00			Tr.		0.02	
			9167	380.00	381.00	1.00			Tr.		0.02	
			9168	381.00	381.50	0.50					0.02	
		381.50 - 390.00 Weakly to moderately deformed, foliated and sericitized with spotty sericite and wispy irregular sericite interstitial to fine quartz and lithics in matrix.	9169	381.50	382.00	0.50			1	5-10	0.02	
		382.00 Moderately strong open sericite + quartz shear and breccia vein with sericitized inclusions in a 0.5 cm wide quartz + calcite vein. Wall rock is quite foliated and sericitic up to 4 cm around vein (75° tca).	9170	382.00	382.50	0.50		Tr.	1	10	0.06	
		382.40 Sharp hairline sericite slip and 0.5 cm sericitic foliation @ 30° tca carries trace spotty fine grained pyrite on irregular hairline fractures and sericitic sutures.	9171	382.50	383.00	0.50			Tr.	Tr.	0.03	
			9172	383.00	383.50	0.50			Tr.	Tr.	0.03	
		383.80 2 cm wide irregular anastomosing sericite + chlorite slips which wrap around pebbles. Adjacent wall rock is micro-fractured and carries trace spotty pyrite.	9173	383.50	384.00	0.50		Tr.	2	15	0.03	
			9174	384.00	384.50	0.50			Tr.	5	0.04	
		384.50 - 385.05 Fault-shear zone @ 40° tca. Upper contact sharp sericitic shear. Lower contact 2 cm wide, brecciated quartz + calcite vein on sericitic slip. Interstitial to slips unit is foliated to sheared to brecciated. Angular sericitized wall rock fragments in a quartz + chlorite breccia matrix and	9175	384.50	385.10	0.60		Tr.	5	15	0.03	

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		angular fragments in white quartz + calcite veinlets. Minor trace pyrite on fractures and sericite suturing.										
		385.55 Fault @ 35°. Chlorite + sericite + quartz. 3-4 cm wide, barren white buff quartz vein on up-hole side of a 0.5 cm wide, strong chlorite + sericite shear.	9176	385.10	386.00	0.90					0.03	
			9177	386.00	387.00	1.00					0.03	
		387.00, 387.10 Two, 1 mm to 1 cm wide, quartz + chlorite + pyrite veins. Veins have green chlorite boundaries and 1% fine grained subhedral pyrite in veins and on vein walls.	9178	387.00	387.35	0.35		Tr.	1	10	0.08	
		387.10 Branches into three smaller veinlets which intrude wall rock.										
			9179	387.35	388.00	0.65		Tr.	Tr.	5	0.11	
			9180	388.00	388.90	0.90			Tr.	5	0.39	
		388.90 - 389.50 Very irregular aphanitic laminated mudstone horizon which is deformed and fractured by strong sericitic slips @ 35° tca and a very irregular anastomosing sericitic fracture set @ 10° tca.	9181	388.90	389.50	0.60			Tr.	20	0.03	
		389.75 Quartz is barren, white-grey quartz ± albite.	9182	389.50	390.10	0.60		Tr.	25	25	1.09	1.18
		389.70 - 390.00 Fault zone @ 55-60° tca. Sericite + chlorite + quartz. Strong tight, 1-3 mm wide, sericite slip contacts with 25% interstitial light grey to buff quartz veining, which carries 1% very finely disseminated pyrite at 389.70-389.75 m.	9183	390.10	390.60	0.50					0.01	
			9184	390.60	391.30	0.70					NIL	
			9185	391.30	392.00	0.70					NIL	
			9186	392.00	393.00	1.00					NIL	
			9187	393.00	394.00	1.00					NIL	
			9188	394.00	395.00	1.00					NIL	
			9189	395.00	396.00	1.00					0.02	
			9190	396.00	397.00	1.00					0.02	
			9191	397.00	398.00	1.00			Tr.	5-10	0.02	
			9192	398.00	398.90	0.90			2	5-10	0.05	
398.90	420.30	SILTSTONE/MUDSTONE										
		398.90 - 399.50 Yellow-green aphanitic massive to finely laminated mudstone.	9193	398.90	399.50	0.60			5	25	0.01	
		399.05 2 cm wide, laminated chlorite + quartz shear.										
		399.10 - 399.50 Unit is cut by 5% irregular milk white quartz ± albite veins and pods.										
		399.50 - 420.30 Dark to light green, well bedded siltstone with minor intercalated mudstone and graywacke horizons. Bedding ranges from a few mm to cm wide and is very sharp to interfingered and irregular @ 40-50° tca. Very pristine, non-deformed. Lower contact gradational over 0.5 metre.	9194	399.50	400.00	0.50			Tr.	5	0.02	
			9195	400.00	401.00	1.00			1	Tr.	0.01	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		401.10 - 401.30 Fault @ 45° tca. Sericite + quartz (dextral). Upper contact 3 mm wide sericitic mud gouge. Lower contact tight sericitic slip. Interstitial to slips are irregular almost sigmoidal (extensional) quartz ± calcite veins up to 1 cm wide with strong wispy sericitized mudstone between veins. Non-mineralized.	9196	401.00	401.50	0.50			10-15	20	0.02	
			9197	401.50	402.00	0.50					0.01	
			9198	402.00	403.00	1.00					NIL	
420.30	441.60	**CONGLOMERATE** Massive, undeformed, poorly sorted, chloritic, matrix to framework supported, polymictic pebble conglomerate. Comprised of dark green very fine grained mafic volcanics, green spotted trachyte, mudstone, quartz granitoid and jasper clasts from 0.5 cm to 15+ cm in size. Matrix is a very fine grained grey-green graywacke.	9199	425.00	426.00	1.00					0.01	
			9200	426.00	427.00	1.00					0.02	
			9201	427.00	427.90	0.90					0.01	
		427.90 - 433.40 Graywacke, massive non-bedded, non-deformed. Fine grained, comprised of ≈ 20% quartz and 80% fine lithics in a grey-green aphanitic groundmass. Weak pervasive spotty sericite.	9202	427.90	428.40	0.50			Tr.	Tr.	NIL	
		428.50 Three small subparallel chlorite + quartz stringers @ 45° tca, 1-5 mm wide, which carry 1% very fine grained pyrite within and on veinlet boundaries.	9203	428.40	428.75	0.35		Tr.	Tr.	Tr.	0.06	
			9204	428.75	429.30	0.55		Tr.	Tr.	Tr.	NIL	
			9205	429.30	430.00	0.70		Tr.	Tr.	Tr.	0.02	
			9206	430.00	430.50	0.50			Tr.	Tr.	0.02	
		430.80 - 430.90 Weak to moderate sericitic shearing @ 25° tca with internal crushing and sericitization of graywacke. Contains minor buff-white quartz ± calcite veinlets and pods.	9207	430.50	431.00	0.50			1	2-3	NIL	
		431.30 1 cm wide chlorite + quartz vein on strong tight chloritic slip @ 40° tca. Vein carries 1% finely disseminated to patchy pyrite on hairline fractures in vein and on vein wall.	9208	431.00	431.50	0.50		Tr.	1	1	0.01	
			9209	431.50	432.00	0.50			Tr.	Tr.	0.03	
			9210	432.00	432.50	0.50				Tr.	0.01	
		432.60 - 432.80 Narrow packed pebble conglomerate horizon with sharp contacts @ 45° tca (bedding).	9211	432.50	433.00	0.50		Tr.	1	1-2	0.02	
		432.80 - 432.90 Chlorite + quartz + pyrite breccia veinlet. Angular light green aphanitic silicified (mudstone?) fragments to 0.5 cm and 5% angular brecciated buff-white quartz fragments in a dark green weakly silicified chloritic vein material which is cut by a later buff-grey quartz vein 0.5 cm wide. Pyrite (1%) occurs along, within and proximal to this later vein.										
		433.40 - 441.60 Intercalated zone of conglomerate, graywacke and mudstone. Zones of pebble rich horizons and graywacke horizons from 15 cm to 1 m wide and finely laminated	9212	433.00	433.50	0.50					NIL	
			9213	433.50	434.00	0.50					NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	SAMPLE From	SAMPLE To	SAMPLE Length	SAMPLE %Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	ASSAYS Au,Check
		mudstones from 1 cm to 0.5 m wide. Well developed laminations @ 30° tca. Note conglomerate horizons are typically comprised of dark green-grey trachyte, mudstones, quartz and jasper fragment/ pebbles but no visible granitoid type clasts evident. Mudstones are typically sericitic while conglomerates/graywackes are weakly to moderately sericitic with 2-3% spotty and wispy sericite development in matrix. 441.00 - 442.50 Grades to predominantly lapilli tuff.										
441.60	451.80	**LAPILLI TUFF** Sericitic, massive to weakly foliated (clast elongation @ 30° tca). Heterolithic lapilli tuff comprised of 5-7% angular lapilli clasts, 2 mm to 10 cm, avg 2-3 cm, in a very fine grained dirty green-brown, sericitized ash matrix. Clasts are of three main types: 1) 50% are dark green, chloritic, very fine grained to finely spotted (trachytoid) trachyte. 2) 30% pink-brown, fine grained trachyte. 3) 20% grey-brown trachyte. Non-magnetic. Matrix appears to be pervasively altered, sericitic, and is a dirty green-brown and has white streak. Too fine grained to determine composition. Lower contact very sharp intact weakly sericitic @ 25° tca.										
451.80	459.30	**ASH TUFF** Massive to weakly foliated @ 30° tca. Fine grained, purple-maroon and pervasively hematized. Unit is comprised of a very fine grained mottled matrix which is very homogeneous and nondescript. Contains ≤ 1% scattered angular dark green chloritic fragments up to 1 cm (lapilli). Non-magnetic. Lower contact somewhat subjective. 458.70 - 459.30 Weakly sericitic. Alteration is probably associated with a fault at 460.30 m.	9214 9215 9216	457.00 458.00 458.50	458.00 458.50 459.30	1.00 0.50 0.80					NIL 0.01 NIL	
459.30	469.50	**LAPILLI TUFF** Sericitic, massive to weakly foliated with pervasive spotty and wispy irregular sericite throughout. Matrix is a light yellow-green-white, very fine grained ash which is somewhat mottled and pervasively sericitized. Strong white streak. Moderate pervasive crenulation foliation. Lapilli clasts constitute 5% of unit and consist of: 1) 70% dark green, chloritic, angular clasts often with vague hazy boundaries due to sericitization in matrix.										

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		2) 20% fine grained buff-brown trachyte. 3) 10% light grey trachyte. Clasts range from 2 mm to 5 cm. Lower contact gradational over 1 metre.										
			9217	459.30	460.00	0.70					NIL	
		460.25 - 460.40 Fault @ 15° tca. Chlorite + sericite + quartz. Strong chlorite + sericite ± mud slips, 2 mm to 0.5 cm wide, with minor quartz veinlets. Strong internal sericitic fracturing and crushing interstitial to slips.	9218	460.00	460.50	0.50			1	20	0.02	
			9219	460.50	461.00	0.50					0.01	
			9220	461.00	461.50	0.50					NIL	
		461.55 - 461.80 Fault @ 60° tca. Sericite + chlorite ± quartz. Strong tight sericite ± mud gouge slips. Interstitial to slips unit is crushed fractured with strong irregular wispy sericite development. Contains 1-2% barren white-grey quartz veinlets.	9221	461.50	462.00	0.50			1-2	25	0.01	
			9222	462.00	463.00	1.00			Tr.	Perv.	0.01	
			9223	463.00	463.65	0.65					0.01	
		463.80 A hairline sericitic slip @ 35° tca with 3-4 mm wide chlorite ± quartz halo developed. Chlorite + quartz carries 0.5-1% very fine grained pyrite.	9224	463.65	464.00	0.35		Tr.	Tr.	5	0.01	
			9225	464.00	464.50	0.50					NIL	
		464.85 - 464.90 Fault @ 75° tca. Chlorite + sericite + quartz. Milk white quartz vein bounded by strong sharp chlorite + sericite slips. Vein has strong internal chlorite fracturing but is non-mineralized. Trace disseminated pyrite in foliated sericitic wall rock adjacent to vein.	9226	464.50	465.00	0.50		Tr.	3	15	NIL	
			9227	465.00	466.00	1.00					NIL	
			9228	466.00	467.00	1.00					NIL	
			9229	467.00	468.00	1.00					0.01	
			9230	468.00	469.00	1.00					0.01	
			9231	469.00	469.50	0.50					0.02	
469.50	545.00	**LAPILLI TUFF** Hematite + chlorite + sericite. Massive dark green to purple, heterolithic lapilli tuff. Irregular mottled colouration due to patchy zones of chlorite, sericite and hematite alteration. Unit is comprised of 5-7% angular lapilli clasts from 3 mm to 5 cm long in a very fine grained massive ash matrix. Clasts are comprised of: 1) 60% dark green spotted trachyte. 2) 30% light brown, fine grained trachyte. 3) 10% variable trachyte and/or mafic volcanic. Typically matrix is a purple-maroon with pervasive hematization which grades to chlorite and sericite altered tuffs generally proximal to faults and/or quartz ± albite veins and occasionally as broad zones of sericitization which grades to hematite with no apparent controlling structure.											
		469.50 - 472.50 Moderately pervasively silicified and is cut by an irregular stockworking of quartz and quartz breccia veins with angular wall rock clasts up to 2 cm. Appears to be late, non-mineralized vein system.	9232	469.50	470.30	0.80			5-7	10	NIL	
			9233	470.30	471.00	0.70					NIL	
			9234	471.00	471.50	0.50			5-7	10	NIL	
			9235	471.50	472.00	0.50			2-3	5-7	0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
			9236	472.00	472.50	0.50			2	5	0.01	
			9237	472.50	473.10	0.60					NIL	
			9238	473.10	474.00	0.90					NIL	
			9239	474.00	475.00	1.00			Tr.	5	NIL	
			9240	475.00	476.00	1.00					0.01	
			9241	476.00	476.75	0.75					NIL	
476.75 - 478.10		Moderately foliated with wispy sericite @ 40° tca which is cut by a strong anastomosing chlorite + quartz fracture slip @ 10° tca. Numerous barren white quartz ± albite veinlets crosscutting foliation and subparallel tca.	9242	476.75	477.50	0.75					NIL	
			9243	477.50	478.10	0.60			3-5	15	NIL	
			9244	478.10	479.00	0.90			3-5	15	NIL	
			9245	479.00	480.00	1.00					NIL	
			9246	480.00	480.80	0.80					NIL	
480.80 - 483.20		Fault zone @ 75° tca. Sericite + chlorite + quartz.	9247	480.80	481.70	0.90			3-5	15-25	0.01	
481.00 - 481.70		Crushed, fractured and sericitized tuff with irregular crenulated sericite and 3% barren white irregular quartz + albite veinlets.										
481.70 - 482.10		Strongly deformed, crushed and fractured tuff with strong tight chlorite mud slips. 5-7% quartz as, laminated quartz + chlorite at slips and late barren crosscutting quartz ± albite veins.	9248	481.70	482.40	0.70			5-7	20	NIL	
482.10 - 483.20		Less crushed, more foliated tuff with 10% wispy sericite and prominent clast elongation @ 30° tca.	9249	482.40	483.20	0.80			2	10	0.01	
483.15 - 483.20		1.5 cm white quartz vein with sharp chlorite + sericite slip boundaries @ 40° tca.	9250	483.20	484.00	0.80					NIL	
			9251	484.00	485.00	1.00					NIL	
			9252	485.00	485.50	0.50			Tr.	2-3	NIL	
485.50		Fault @ 50°. Sericite + chlorite + quartz. 2 cm wide foliated quartz vein with internal sericitic suturing and chloritic boundaries on a tight chlorite slip.	9253	485.50	486.00	0.50			Tr.	5-10	NIL	
			9254	486.00	487.00	1.00			1-2	5-10	0.02	
485.50 - 487.00		Unit is moderately well foliated @ 50° tca with patchy wispy sericite and a weak to moderate patchy pervasive sericite alteration and is cut by 1-2%, ≤ 0.5 cm wide, barren quartz ± albite veinlets parallel to foliation.	9255	487.00	488.00	1.00					NIL	
			9256	488.00	489.00	1.00					NIL	
			9257	489.00	490.00	1.00					NIL	
490.40		Fault @ 60° tca. Sericite + quartz. Sharp strong sericitic slip with 2-3 cm wide wispy irregular sericitic bleaching of wall rock on either side of slip.	9258	490.00	490.50	0.50			1	5-10	0.01	
			9259	490.50	491.00	0.50					NIL	
491.00 - 491.40		Fault @ 15° tca. Sericite + chlorite + quartz. Very irregular 1 cm wide quartz + chlorite breccia vein with angular included wall rock fragments. Wall rock contains irregular chloritic fracturing and wispy sericite cut by late barren white quartz pods veinlets.	9260	491.00	491.50	0.50			2-3	10-15	0.01	
			9261	491.50	492.00	0.50					NIL	
			9262	492.00	493.00	1.00					NIL	
			9263	493.00	494.00	1.00					NIL	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		500.15 - 500.30 Fault @ 55° tca. Sericite + chlorite + quartz. Marked by two strong tight, 1 cm wide, sericite + chlorite slips. Interstitial to slips, tuff is buff-brown sericitic with 5% barren quartz ± albite veinlets (≤ 1 cm).											
		510.00 - 516.00 Sericitized lapilli tuff. No prominent structure evident.											
		510.00 - 510.70 Upper contact is gradational with sericitization proximal to quartz ± albite veinlets.											
		510.70 Pervasively sericitized with alteration evident in matrix and also of lapilli clasts.											
		528.60 Fault @ 40° tca. Sericite + chlorite + quartz. Strong wispy sericitic foliation over a width of 7 cm proximal to hairline chloritic slips with barren quartz ± albite veinlets.											
		533.50 - 545.00 Gradational hematitic-→sericitic, patchy pervasive sericitization of unit with intercalated zones of hematitic tuff grading to yellow-green sericitized tuffs. Massive to moderately foliated with sericitic fabric and clast elongation @ 35° tca.	9264	541.00	542.00	1.00			1-2	10		0.03	
			9265	542.00	543.00	1.00			Tr.	10		0.02	
			9266	543.00	544.00	1.00			Tr.	10		0.01	
			9267	544.00	545.00	1.00			Tr.	10-15		0.01	
545.00	560.10	**LAPILLI TUFF** Sericitic, massive, moderately well foliated, heterolithic lapilli tuff. Comprised of 5-10% angular heterolithic lapilli clasts from 0.5-5 cm, avg 1-2 cm, frequently elongated parallel to foliation @ 35-40° tca. Clasts consist of: 1) 80% black-white spotted chloritic trachyte(?). 2) 15% dark green, chloritic to fuchsitic altered aphanitic volcanics. 3) 5% light grey to buff to pink very fine grained trachyte frequently sericitic. Matrix is very fine grained to aphanitic light buff to yellow-green, pervasively sericitized (soft white streak) with a foliated wispy sericitic fabric developed. Non-magnetic.	9268	545.00	545.50	0.50				25-30	Perv.	0.02	
			9269	545.50	546.30	0.80				25-30	Perv.	NIL	
		546.30 - 546.60 1 cm white-cream quartz ± albite vein crosscutting foliation @ 15° tca. Vein carries 0.5% spotty pyrite located on small blue-grey patches (quartz?) up to 1 cm wide within barren white vein.	9270	546.30	546.90	0.60		0.5		25-30		0.09	
		546.95 - 547.30 Quartz + sericite + pyrite vein @ 30-40° tca. Upper and lower contacts are 0.5-1 cm wide, foliated to schistose wispy sericite with 2% very finely disseminated pyrite. Vein comprised of at least two generations: 1) Milk white to cream somewhat irregular quartz ± albite (75%) non-mineralized. 2) Blue-grey quartz and wispy banded	9271	546.90	547.35	0.45		3-4	70	15-20		8.37	7.99

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
		sericite + 3-5% pyrite, suturing @ 40° tca and fracture fillings within earlier white quartz.											
	547.30 - 547.75	Foliated sericitic lapilli tuff with 0.5-1% finely disseminated pyrite. 1% proximal to vein for ≈ 5 cm dropping off rapidly to 0.5% to trace, away from above vein. Cut by 2% barren white-buff quartz albite veins slightly oblique to foliation and cross- foliation.	9272	547.35	547.75	0.40		0.5-1				0.22	
	547.80 - 548.37	Quartz + sericite + pyrite vein. Upper contact marked by a somewhat irregular white-cream barren quartz ± albite vein which is cut by an irregular anastomosing hairline sericite + pyrite slip @ 10-15° tca. Down-hole of this slip, the white quartz is cut by irregular anastomosing 3-5% blue-grey quartz + sericite + pyrite sutures and fracture filling. Lower contact is foliated to sheared @ 30° tca with wispy sericite and 1% fine grained pyrite up to 7 cm from vein.	9273	547.75	548.45	0.70		2-3	65	15	Perv.	2.76	
	548.50 - 550.50	An irregular, 1 mm to 1 cm wide, anastomosing chlorite + quartz fracture slip @ 0-15° tca which offsets earlier quartz ± albite vein ≤ 0.5 cm.	9274	548.45	549.00	0.55		0.5	1	10		0.05	
			9275	549.00	549.50	0.50		Tr.	1	10		1.62	
			9276	549.50	550.00	0.50			Tr.	10-20		0.96	
			9277	550.00	550.50	0.50			1	10-20		0.75	
	550.50 - 555.00	Sericitic lapilli tuff contains widely spaced sporadic quartz ± albite veins, ≤ 2-3 cm wide, which occasionally carry trace euhedral spotty pyrite. Veins are milk white to buff in cores and appear to be late.	9278	550.50	551.00	0.50		Tr.	1-2	10-20		2.33	
			9279	551.00	551.50	0.50				10-20		1.25	
			9280	551.50	552.00	0.50		Tr.	2	10-20		1.74	
			9281	552.00	552.50	0.50				20		0.01	
			9282	552.50	553.00	0.50		Tr.	1-2	20		0.01	
			9283	553.00	553.50	0.50		1		25		0.02	
	553.55 - 553.60	Fault @ 65° tca. Chlorite + sericite + quartz. Laminated sutured quartz ± albite vein with internal chlorite + sericite wisps bounded by sharp chloritic slips.	9284	553.50	554.00	0.50			1-2	30		0.02	
			9285	554.00	554.50	0.50			Tr.	25		NIL	
			9286	554.50	555.00	0.50		Tr.	1	25		0.02	
			9287	555.00	555.50	0.50				15-20		NIL	
			9288	555.50	556.00	0.50				15-20		NIL	
			9289	556.00	556.50	0.50				15-20		NIL	
			9290	556.50	557.00	0.50				15-20		0.02	
			9291	557.00	557.50	0.50				15-20		NIL	
			9292	557.50	558.00	0.50				15-20		NIL	
			9293	558.00	558.50	0.50				15-20		NIL	
			9294	558.50	559.15	0.65			1	15-20		NIL	
	559.20 - 559.55	Fault @ 35° tca. Quartz + sericite + pyrite vein.	9295	559.15	559.60	0.45		2-3	10	30-40		0.02	

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INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		559.20 - 559.35 Strong chlorite + sericite + gouge shear @ 35° tca with 3-5% fractured to brecciated white quartz and trace disseminated pyrite.										
		559.35 - 559.55 Crushed, fractured and sericitized tuff with two irregular 1-3 cm wide, blue-grey quartz veins and anastomosing braided fractures with wispy internal sericite and 3-5% very fine grained pyrite.	9296	559.60	560.10	0.50		Tr.	1-2	25	0.46	
		560.00 - 560.10 Fault @ 30-55° tca. Upper contact is a blue-grey, 2-3 mm wide, mud gouge slip @ 30° tca. May contain smeared sulphides. Lower contact is a 5 mm wide chloritic mud gouge @ 55° tca. Interstitial to breaks is foliated sericitic tuff with tight chloritic slips and trace disseminated pyrite.										
560.10	564.10	**CONGLOMERATE/GRAYWACKE** Chlorite + sericite. Interdigitated massive to foliated graywacke, pebbly graywacke and conglomerate horizons which are pristine and undeformed with a weak pervasive spotty sericitization. Lower contact of sediments is a sharp strong chloritic slip @ 50° tca.										
		560.10 - 561.00 Pebbly graywacke (1-2% pebbles) which is yellow-green, moderately sericitized but virtually undeformed. This grades to polymictic conglomerate from 561.0-562.1 m.	9297	560.10	560.60	0.50				5-10	0.20	
			9298	560.60	561.10	0.50					0.03	
			9299	561.10	562.10	1.00					NIL	
		562.10 - 562.60 Massive graywacke, minor mudstone chips.	9300	562.10	562.60	0.50					0.02	
		562.60 - 564.10 Tightly packed polymictic pebble conglomerate.	9301	562.60	563.10	0.50					0.05	
			9302	563.10	563.60	0.50		Tr.	1	5	0.01	
			9303	563.60	564.10	0.50		Tr.	Tr.	5-7	NIL	
564.10	583.10	**LAPILLI TUFF** Moderately well foliated @ 30° tca, pervasively sericitized heterolithic lapilli tuff. Readily distinguishable by its overall spotted appearance due to predominantly dark green to black-white spotted angular lapilli clasts in a light green sericitic matrix. Clasts are: 1) 80% dark green-black, frequently white spotted, angular trachyte, 0.5-5 cm. 2) 15% very fine grained, chloritic to fuchsitic altered, mafic(?) volcanics. 3) 5% light grey to buff-brown fine, grained trachyte. Matrix is very fine grained light green-white with 30-50% pervasive and wispy sericite.										
		564.10 - 564.40 0.5% finely disseminated pyrite in matrix.	9304	564.10	564.60	0.50		Tr.	Tr.	25-30	0.02	
			9305	564.60	565.10	0.50				20-30	0.01	
			9306	565.10	566.00	0.90				20-30	NIL	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser		ASSAYS Au, g/t	Au,Check
			9307	566.00	566.50	0.50		Tr.	Tr.	20-30		NIL	
		566.70 - 566.80 Foliated to weakly schistose tuff with a 2 cm wide milk white quartz ± albite vein @ 30° tca, parallel to foliation. Vein carries 1-2% patchy pyritic clots which appear to be located on and proximal to small hairline fracturing which have a steel blue mineral (galena?) smeared on fractures. Foliated sericitic tuff adjacent to vein carries 1% very finely disseminated pyrite.	9308	566.50	567.00	0.50		0.5	1-2	20-30		0.29	
			9309	567.00	567.50	0.50				20-30		0.02	
			9310	567.50	568.00	0.50				20-30		0.02	
			9311	568.00	568.80	0.80				20-30		0.03	
		568.85 - 569.80 Silicified foliated zone with sericite + quartz + pyrite veining. Well foliated somewhat silicified lapilli tuff with 1% very finely disseminated pyrite throughout. Section carries five prominent quartz + sericite + pyrite veins and slips from 1 mm to 2 cm wide. Veins are milk white to grey-blue, sulphide-tinged, quartz ± albite veins with wispy internal sericite + pyrite and strongly foliated sericite + pyrite margins. Total pyrite 1-2%.	9312	568.80	569.30	0.50		2	5	15	Sil.	0.76	
			9313	569.30	569.80	0.50		2	3	15	Sil.	0.12	
		569.80 - 571.00 Quartz + sericite + pyrite slips veinlets, ≤ 0.5 cm wide, well spaced within non-mineralized lapilli tuff.	9314	569.80	570.30	0.50		Tr.	Tr.	20-30		0.02	
			9315	570.30	571.00	0.70		Tr.-0.5	1	20-30		0.09	
		571.15 - 571.25 Quartz + sericite + pyrite vein @ 30° tca. 3 cm wide milk white fractured "crack & seal" quartz vein with sharp foliated sericitic pyritic boundaries. Vein is internally finely fractured with hairline blue-grey quartz + pyrite (± molybdenite or galena?) fracture fillings or sealing. 2% pyrite.	9316	571.00	571.50	0.50		1-2	2	20-30		0.36	
			9317	571.50	572.00	0.50		Tr.	Tr.	20-30		NIL	
			9318	572.00	572.50	0.50				20-30		NIL	
			9319	572.50	573.00	0.50		Tr.	1	20-30		0.02	
		573.15 - 573.40 Fault zone @ 35-50° tca. Sericite + chlorite + quartz + pyrite. Very strong, chloritic mud smeared, irregular anastomosing blue-grey slips with 1-2% fine grained pyrite. These slip planes range from hairline cracks which tend to braid and splay out into wall rock. Interstitial to slips unit is crushed, foliated and carries 1% finely disseminated pyrite.	9320	573.00	573.50	0.50		1-2	1-2	30-40		0.46	
			9321	573.50	574.00	0.50		Tr.	Tr.	25-30		0.02	
			9322	574.00	574.50	0.50		Tr.	Tr.	20-30		NIL	
		574.75 1 cm wide white-buff, barren quartz ± albite vein @ 80° tca crosscutting an earlier quartz + sericite + pyrite foliation @ 45° tca. Carries 0.5-1% finely disseminated pyrite adjacent to barren vein.	9323	574.50	575.00	0.50		Tr.-0.5	1	20-30		0.04	
			9324	575.00	575.50	0.50		Tr.	Tr.	20-30		NIL	
			9325	575.50	576.00	0.50				20-30		NIL	
			9326	576.00	576.50	0.50				20-30		NIL	
			9327	576.50	577.00	0.50		Tr.	Tr.	20-30		NIL	
			9328	577.00	577.60	0.60		Tr.	1-2	20-30		NIL	
		577.70 - 578.55 Quartz + sericite + pyrite zone. Weakly silicified, well foliated @ 35° tca to sheared lapilli tuff with 10-15% white to blue-grey quartz + sericite + pyrite veins and	9329	577.60	578.10	0.50		2-3	3-5	20-30		0.76	
			9330	578.10	578.60	0.50		1-2	5-7	20-30		4.56	4.53
			9331	578.60	579.10	0.50		Tr.	Tr.	20-30		0.02	

BATTLE MOUNTAIN (CANADA) INC.
DIAMOND DRILL LOG

HOLE: AK-91-38

INTERVAL FROM	INTERVAL TO	DESCRIPTION	SAMPLE No.	From	To	Length	%Rec	%Py	%QV	%Ser	ASSAYS Au, g/t	Au,Check
		slips which carry 3-5% very fine grained pyrite. Blue-grey mineral on small hairline fractures appears to be galena in places. Total zone carries 1-2% pyrite.	9332	579.10	579.60	0.50				15-20	0.13	
			9333	579.60	580.10	0.50				15-20	0.03	
			9334	580.10	580.50	0.40				15-20	0.02	
			9335	580.50	581.00	0.50				10-15	0.01	
		581.00 - 583.10 Quite strongly deformed and foliated with strong wispy sericite and 3-5% milk white to buff quartz ± albite veinlets. This section however carries very minor to trace pyrite. Lower contact is a sharp irregular sericite slip @ 20° tca.	9336	581.00	581.50	0.50		Tr.	3-4	25	0.23	
			9337	581.50	582.00	0.50		Tr.	5	25	0.02	
			9338	582.00	582.50	0.50		Tr.	2	20-25	0.01	
			9339	582.50	583.20	0.70		Tr.	2	25	0.01	
583.10	619.10	**LAPILLI TUFF**										
		Chlorite + hematite. Massive dark green to maroon where pervasively hematitic. Comprised of 5-7% angular heterolithic lapilli clasts from 0.5-5 cm in a very fine grained massive ash matrix. Clasts consist of: 1) 70% fine grained light purple-brown, hematitic, trachyte. 2) 25% light grey to buff fine grained trachyte. 3) 5% variable clasts from dark green, chloritic, aphanitic volcanic to a few minor spotted trachyte clasts. Unit is non-magnetic and is cut by 1-2% barren white quartz ± albite veinlets, ≤ 1 cm wide, at all angle to core axis.	9340	583.20	584.00	0.80					0.02	
			9341	584.00	585.00	1.00					NIL	
			9342	585.00	585.50	0.50					0.03	
			9343	585.50	586.00	0.50			1-2	3	0.03	
		599.80 Fault @ 40° tca. Sericite + chlorite + quartz. 1 cm wide sericitic shear with minor barren quartz veinlets.										
		599.40 - 599.80 Tuffs are moderately foliated and sericitic.										
		613.00 - 618.80 Unit becomes increasingly sericitized with very irregular patchy wispy sericite ± quartz veinlets @ 45° tca.										
		618.80 - 619.10 Fault @ 10° tca. Chlorite + sericite + quartz + calcite. 0.5 cm wide strong irregular chlorite + sericite slip with an open vuggy pink quartz + calcite vein. Cross-fault type.										
	619.10	**END OF HOLE**										

APPENDIX II

ASSAY CERTIFICATES

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Established 1928

Assay Certificate

1W-3599-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: W. BENHAM

Date: AUG-09-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 70 SPLIT CORE samples submitted AUG-05-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7551	0.01	
7552	0.01	
7553	0.01	
7554	0.02	
7555	0.01	
7556	Nil	
7557	0.01	
7558	0.01	Nil
7559	0.01	
7560	0.01	
7561	0.01	
7562	0.02	
7563	0.02	
7564	0.02	
7565	0.03	0.01
7566	0.01	
7567	0.03	
7568	0.02	
7569	0.01	
7570	0.01	
7571	0.01	
7572	0.01	
7573	Nil	
7574	Nil	
7575	Nil	
7576	0.01	
7577	0.02	
7578	0.02	Nil
7579	Nil	
7580	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

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1W-3599-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: W. BENHAM

Date: AUG-09-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 70 SPLIT CORE samples submitted AUG-05-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7581	0.01	
7582	0.01	
7583	0.02	
7584	0.03	
7585	0.02	
7586	Nil	
7587	0.01	
7588	Nil	
7589	0.01	
7590	0.01	
7591	0.01	
7592	0.02	
7593	Nil	
7594	0.03	0.04
7595	0.02	
7596	0.01	
7597	0.01	
7598	0.02	
7599	0.01	
7600	0.01	
7601	Nil	
7602	0.01	
7603	Nil	
7604	0.01	
7605	0.01	
7606	0.03	
7607	0.03	
7608	0.01	
7609	0.01	
7610	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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2. FAX TO 567-6448

We hereby certify the following Assay of 70 SPLIT CORE samples submitted AUG-05-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7611	0.03	
7612	0.03	
7613	0.02	
7614	0.01	
7615	0.01	
7616	Nil	
7617	Nil	
7618	0.02	
7619	Nil	
7620	0.01	0.01

Au was determined using 1 AT fusions

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1W-3621-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-15-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 63 CORE samples submitted AUG-07-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7621	0.01	0.01	
7622	0.03		
7623	0.02		
7624	0.01		
7625	0.02		
7626	0.03		
7627	Nil		
7628	0.33		
7629	0.11		
7630	0.72		
7631	0.99	0.99	
7632	0.04		
7633	0.01		
7634	0.02		
7635	0.13		
7636	0.89		
7637	1.64		
7638	0.20		
7639	1.17	1.17	
7640	0.02		
7641	Nil		
7642	0.02		
7643	0.04		
7644	0.01		
7645	0.05		
7646	0.05		
7647	0.05		
7648	0.20	0.27	
7649	0.05		
7650	0.02		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: **BATTLE MOUNTAIN CANADA INC.**
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Attn: WAYNE BENHAM

Date: AUG-15-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 63 CORE samples submitted AUG-07-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7651	Nil		
7652	0.01		
7653	0.01		
7654	0.01		
7655	0.03		
7656	0.04		
7657	Nil		
7658	0.01		
7659	Nil		
7660	0.23		
7661	10.29	10.97	11.38
7662	1.71	1.92	
7663	0.04		
7664	0.03		
7665	3.43	3.57	
7666	3.43	4.18	
7667	0.58		
7668	0.07		
7669	0.24		
7670	Nil		
7671	0.12		
7672	0.22		
7673	16.39	16.39	13.85
7674	0.04		
7675	0.04		
7676	Nil		
7677	0.01		
7678	0.02		
7679	Nil		
7680	0.01		

AK-91 #30

Au was determined using 1 AT fusions

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Attn: WAYNE BENHAM

Date: AUG-15-91
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We hereby certify the following Assay of 63 CORE samples submitted AUG-07-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7681	0.01		
7682	0.01		
7683	0.01		

Au was determined using 1 AT fusions

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Attn: WAYNE BENHAM

Date: AUG-15-91
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2. FA TO 567-6448

We hereby certify the following Assay of 56 CORE samples submitted AUG-08-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7684	0.02	
7685	0.01	
7686	0.02	
7687	0.03	
7688	0.02	
7689	0.03	
7690	0.02	
7691	0.01	
7692	0.02	
7693	0.23	0.21
7694	0.01	
7695	0.01	
7696	Nil	
7697	Nil	
7698	Nil	
7699	0.01	
7700	Nil	
7701	Nil	
7702	Nil	
7703	Nil	
7704	0.01	
7705	0.01	
7706	0.01	
7707	0.01	
7708	0.02	0.02
7709	0.01	
7710	0.01	
7711	0.01	
7712	Nil	
7713	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-15-91
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2. FA TO 567-6448

We hereby certify the following Assay of 56 CORE samples submitted AUG-08-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7714	0.01	
7715	0.01	
7716	0.01	
7717	0.07	0.03
7718	Nil	
7719	0.01	
7720	Nil	
7721	Nil	
7722	Nil	
7723	0.01	
7724	Nil	
7725	0.01	
7726	0.01	
7727	Nil	
7728	0.01	
7729	0.01	
7730	0.02	
7731	Nil	Nil
7732	Nil	
7733	Nil	
7734	0.03	
7735	0.01	
7736	0.01	
7737	0.01	
7738	0.02	
7739	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Date: AUG-15-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 17 CORE samples submitted AUG-08-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7740	0.01	0.01
7741	0.01	
7742	0.02	
7743	0.01	
7744	0.02	
7745	0.01	
7746	0.01	
7747	Nil	
7748	0.02	
7749	0.84	0.84
7750	0.29	0.35
7751	0.30	
7752	0.06	
7753	0.45	0.47
7754	0.10	
7755	0.02	
7756	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3671-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: AUG-14-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont.P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 81 core samples submitted AUG-12-91 by M. Masson.

Sample Number	Au g/tonne	Au check g/tonne
7757	0.03	
7758	Nil	0.01
7759	Nil	
7760	0.01	
7761	0.02	
7762	0.01	
7763	0.04	
7764	0.01	
7765	0.02	
7766	0.01	
7767	0.02	
7768	0.01	
7769	0.02	
7770	Nil	
7771	0.02	
7772	Nil	
7773	0.03	0.01
7774	0.02	
7775	Nil	
7776	Nil	
7777	Nil	
7778	Nil	
7779	0.01	
7780	0.02	
7781	0.01	0.02
7782	Nil	
7783	0.01	
7784	Nil	
7785	Nil	
7786	0.02	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244. FAX (705) 642-3300

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Assay Certificate

1W-3671-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: AUG-14-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont.P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 81 core samples submitted AUG-12-91 by M. Masson.

Sample Number	Au g/tonne	Au check g/tonne
7787	0.02	
7788	0.01	
7789	Nil	
7790	0.02	
7791	Nil	
7792	0.01	
7793	Nil	
7794	Nil	
7795	Nil	
7796	0.01	
7797	Nil	
7798	0.01	
7799	Nil	0.01
7800	Nil	
7801	Nil	
7802	0.01	
7803	0.01	
7804	0.02	
7805	0.01	
7806	0.02	
7807	0.01	
7808	0.03	
7809	0.04	
7810	0.03	
7811	0.01	
7812	0.02	
7813	0.01	0.02
7814	0.01	
7815	0.01	
7816	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

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Assay Certificate

1W-3671-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: W.BENHAM

Date: AUG-14-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont.P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 81 core samples submitted AUG-12-91 by M. Masson.

Sample Number	Au g/tonne	Au check g/tonne
7817	0.01	
7818	0.02	
7819	0.03	
7820	0.01	
7821	0.02	
7822	0.03	
7823	0.01	
7824	0.02	
7825	0.01	0.03
7826	Nil	
7827	0.01	
7828	0.02	
7829	0.01	
7830	0.04	
7831	0.01	
7832	0.01	
7833	0.02	
7834	0.01	
7835	0.01	
7836	0.02	
7837	0.01	0.01

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3694-RA1

Assay Certificate

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-23-91

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2. FAX TO 567-6448

We hereby certify the following Assay of 54 SAWN CORE samples submitted AUG-13-91 by M. MASSON.

RECEIVED SEP - 3 1991

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7838	0.04		
7839	0.38	0.48	
7840	0.17		
7841	0.11		
7842	0.05		
7843	0.08		
7844	0.02		
7845	0.01		
7846	0.03		
7847	0.15		
7848	0.10		
7849	0.16		
7850	25.77	23.38	29.66
7851	0.25		
7852	0.01		
7853	0.03		
7854	Nil		
7855	Nil		
7856	0.02		
7857	0.01		
7858	0.01		
7859	0.02	0.03	
7860	Nil		
7861	Nil		
7862	Nil		
7863	0.02		
7864	Nil		
7865	Nil		
7866	Nil		
7867	Nil		

Au was determined using 1 AT fusions

Certified by R Landin

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Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-23-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 54 SAWN CORE samples submitted AUG-13-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7868	0.03		
7869	Nil		
7870	Nil		
7871	Nil		
7872	Nil		
7873	Nil		
7874	Nil		
7875	0.02		
7876	Nil		
7877	0.01		
7878	Nil		
7879	Nil		
7880	0.07		
7881	0.04		
7882	Nil		
7883	0.02	0.03	
7884	Nil		
7885	0.01		
7886	Nil		
7887	0.01		
7888	Nil		
7889	Nil		
7890	0.04	0.02	
7891	Nil		

Au was determined using 1 AT fusions

Certified by R. Landini

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Attn: WAYNE BENHAM

Date: AUG-21-91

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We hereby certify the following Assay of 40 CORE samples submitted AUG-13-91 by M. MASSON.

RECEIVED SEP - 3 1991

Sample Number	Au g/tonne	Au check g/tonne
7892	0.01	
7893	Nil	
7894	Nil	
7895	Nil	
7896	0.01	
7897	0.03	
7898	0.04	0.09
7899	0.02	
7900	Nil	
7901	0.02	
7902	0.02	
7903	Nil	
7904	0.46	0.39
7905	0.02	
7906	Nil	
7907	Nil	
7908	0.07	
7909	Nil	
7910	0.01	
7911	0.04	
7912	0.01	
7913	0.02	
7914	0.01	
7915	0.01	
7916	0.02	
7917	Nil	
7918	Nil	
7919	Nil	
7920	0.01	
7921	0.02	

Au was determined using 1 AT fusions

Certified by P Landini

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Date: AUG-21-91

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We hereby certify the following Assay of 40 CORE samples submitted AUG-13-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7922	0.03	
7923	0.12	0.20
7924	0.03	
7925	Nil	
7926	0.01	
7927	Nil	
7928	0.02	
7929	0.03	
7930	0.03	
7931	0.01	

Au was determined using 1 AT fusions

Certified by R. Landini

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Company: BATTLE MOUNTAIN (CANADA) INC.
Project: 75-JV-28
Attn: W. BENHAM

Date: AUG-15-91

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2. FAX TO 567-6448

We hereby certify the following Assay of 48 CORE samples submitted AUG-13-91 by M.MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7932	Nil		
7933	Nil		
7934	0.01		
7935	0.01		
7936	0.03		
7937	0.02		
7938	0.02		
7939	0.05		
7940	0.14		
7941	45.22	44.95	39.77
7942	2.98	2.81	
7943	0.22		
7944	1.82	2.06	
7945	2.78	2.67	
7946	0.93	0.96	
7947	12.48	12.55	
7948	0.86		
7949	0.07		
7950	2.33	1.85	
7951	20.98	20.57	
7952	27.39	27.15	25.54
7953	0.13		
7954	0.06		
7955	0.02		
7956	0.01		
7957	0.22		
7958	0.04		
7959	0.06		
7960	0.01		
7961	0.07	0.06	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: BATTLE MOUNTAIN (CANADA) INC.
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Attn: W. BENHAM

Date: AUG-15-91

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2. FAX TO 567-6448

We hereby certify the following Assay of 48 CORE samples submitted AUG-13-91 by M.MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
7962	0.03		
7963	0.04		
7964	0.02		
7965	Nil		
7966	Nil		
7967	0.11	0.14	
7968	0.01		
7969	0.01		
7970	0.01		
7971	0.01		
7972	0.09		
7973	0.01		
7974	0.04		
7975	0.05		
7976	0.06		
7977	0.04	0.03	
7978	0.08		
7979	0.01		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3752-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-27-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 71 CORE samples submitted AUG-15-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
7980	Nil	
7981	0.04	
7982	0.01	
7983	0.16	0.14
7984	0.09	
7985	0.02	
7986	0.04	
7987	0.06	
7988	0.14	0.20
7989	0.08	
7990	0.07	
7991	0.02	
7992	0.04	
7993	0.08	
7994	0.03	
7995	0.03	
7996	0.03	
7997	0.03	
7998	0.03	
7999	0.06	0.03
8000	0.06	
8001	0.03	
8002	0.01	
8003	0.01	
8004	0.04	
8005	0.02	
8006	0.01	
8007	0.03	
8008	0.01	
8009	Nil	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Date: AUG-27-91
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We hereby certify the following Assay of 71 CORE samples submitted AUG-15-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8010	0.03	
8011	0.01	
8012	0.01	
8013	0.04	
8014	0.03	0.02
8015	0.01	
8016	0.02	
8017	0.01	
8018	0.02	
8019	0.01	
8020	0.02	
8021	0.03	
8022	0.02	
8023	Nil	
8024	Nil	
8025	0.02	
8026	Nil	
8027	Nil	
8028	0.01	
8029	0.02	
8030	Nil	
8031	0.03	
8032	Nil	
8033	0.01	
8034	0.01	
8035	Nil	
8036	Nil	
8037	0.02	0.01
8038	0.01	
8039	Nil	

Au was determined using 1AT fusions.

Certified by Donna Yaraden

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Date: AUG-27-91
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We hereby certify the following Assay of 71 CORE samples submitted AUG-15-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8040	0.01	
8041	Nil	
8042	0.02	
8043	Nil	
8044	0.04	
8045	Nil	
8046	0.03	
8047	0.01	
8048	0.01	
8049	0.02	0.03
8050	0.01	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Attn: W. BENHAM

Date: AUG-22-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 26 CORE samples submitted AUG-16-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8051	0.01	
8052	0.05	
8053	0.02	
8054	0.01	
8055	0.04	
8056	0.05	
8057	0.04	
8058	0.03	
8059	0.03	
8060	0.04	
8061	0.01	
8062	0.01	0.03
8063	0.03	
8064	Nil	
8065	0.03	
8066	0.01	
8067	Nil	
8068	0.03	
8069	0.01	
8070	Nil	
8071	0.01	
8072	Nil	
8073	0.01	
8074	0.01	
8075	Nil	
8076	0.03	0.02

Au was determined using 1 AT fusions

Certified by P Landin

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1W-3725-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-22-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 22 CORE samples submitted AUG-19-91 by M. MASSON.

RECEIVED SEP - 3 1991

Sample Number	Au g/tonne	Au check g/tonne
8077	Nil	
8078	0.02	
8079	0.01	
8080	0.01	
8081	0.04	
8082	0.02	
8083	0.02	
8084	0.03	
8085	0.04	
8086	0.01	0.01
8087	Nil	
8088	Nil	
8089	0.01	
8090	Nil	
8091	0.03	0.02
8092	0.01	
8093	Nil	
8094	0.02	
8095	Nil	
8096	Nil	
8097	0.03	
8098	Nil	

Au was determined using 1 AT fusions

Certified by L Landin

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Assay Certificate

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: W.BENHAM

Date: AUG-28-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 109 CORE samples submitted AUG-22-91 by M. MASSON.

RECEIVED SEP - 3 1991

Sample Number	Au g/tonne	Au check g/tonne
8099	0.02	
8100	Nil	
8101	0.02	
8102	0.01	Nil
8103	0.02	
8104	0.02	
8105	Nil	
8106	0.02	
8107	0.01	
8108	0.01	
8109	0.03	
8110	0.02	
8111	0.01	
8112	0.03	0.02
8113	Nil	
8114	0.02	
8115	0.02	
8116	0.01	
8117	0.01	
8118	0.02	
8119	0.01	
8120	Nil	
8121	0.02	
8122	0.01	
8123	0.01	
8124	0.02	
8125	0.03	0.03
8126	Nil	
8127	0.02	
8128	0.03	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Attn: W.BENHAM

Date: AUG-28-91
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We hereby certify the following Assay of 109 CORE samples submitted AUG-22-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8129	0.01	
8130	0.02	
8131	0.01	
8132	0.01	
8133	0.03	0.03
8134	0.01	
8135	0.01	
8136	0.01	
8137	Nil	
8138	0.04	
8139	0.02	
8140	Nil	
8141	0.02	
8142	0.01	
8143	0.01	
8144	0.01	
8145	0.01	
8146	Nil	
8147	0.02	0.02
8148	0.02	
8149	0.01	
8150	0.01	
8151	0.01	
8152	0.02	
8153	0.01	
8154	0.02	
8155	0.01	
8156	Nil	
8157	Nil	
8158	Nil	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Project: 75-JV-28
Attn: W.BENHAM

Date: AUG-28-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 109 CORE samples submitted AUG-22-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8159	0.02	
8160	0.01	
8161	Nil	
8162	0.02	
8163	Nil	
8164	0.01	
8165	0.02	
8166	0.01	
8167	0.01	
8168	0.03	0.03
8169	0.05	
8170	0.02	
8171	0.04	
8172	0.03	
8173	0.01	
8174	0.05	
8175	0.02	
8176	0.01	
8177	0.05	
8178	0.02	0.02
8179	0.03	
8180	0.03	
8181	0.01	
8182	0.04	
8183	0.01	
8184	0.02	
8185	0.01	
8186	0.04	
8187	0.04	
8188	0.01	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Attn: W.BENHAM

Date: AUG-28-91
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We hereby certify the following Assay of 109 CORE samples submitted AUG-22-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8189	0.02	
8190	0.04	
8191	0.02	
8192	0.01	
8193	0.03	
8194	0.01	
8195	0.03	
8196	Nil	
8197	0.02	
8198	0.02	
8199	0.01	
8200	0.03	0.02
8201	0.04	
8202	0.02	
8203	0.02	
8204	0.02	
8205	0.01	
8206	0.01	
8207	0.02	

Au was determined using 1AT fusions.

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1W-3798-RA1

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Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-29-91

Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 34 SPLIT CORE samples submitted AUG-26-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8208	0.01	
8209	Nil	
8210	0.01	
8211	0.01	
8212	0.01	
8213	Nil	
8214	0.01	
8215	Nil	Nil
8216	0.01	
8217	0.01	
8218	0.01	
8219	0.04	
8220	Nil	
8221	Nil	
8222	0.06	0.03
8223	Nil	
8224	0.01	
8225	0.02	
8226	0.03	
8227	0.01	
8228	0.01	
8229	Nil	
8230	Nil	
8231	0.01	
8232	0.02	
8233	0.02	0.04
8234	Nil	
8235	0.01	
8236	0.01	
8237	0.01	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: AUG-29-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 34 SPLIT CORE samples submitted AUG-26-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8238	0.02	
8239	0.01	
8240	0.01	
8241	Nil	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Assay Certificate

1W-3807-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: AUG-28-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 8 CORE samples submitted AUG-27-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne
8278	0.01	0.01
8279	0.01	
8280	Nil	
8281	Nil	0.01
8282	Nil	
8283	0.02	
8284	Nil	
8285	Nil	

Au was determined using 1AT fusions.

Certified by Donna Gardner

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Assay Certificate

1W-3823-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-03-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 76 CORE samples submitted AUG-28-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8242	0.01	
8243	0.01	Nil
8244	0.01	
8245	0.01	
8246	0.01	
8247	Nil	
8248	Nil	
8249	Nil	
8250	Nil	
8251	Nil	
8252	Nil	
8253	Nil	
8254	Nil	
8255	Nil	
8256	0.01	
8257	Nil	
8258	Nil	
8259	Nil	
8260	0.01	
8261	0.01	
8262	0.01	0.01
8263	Nil	
8264	0.01	
8265	Nil	
8266	Nil	
8267	0.01	
8268	0.01	
8269	Nil	
8270	0.02	
8271	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Assay Certificate

1W-3823-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-03-91
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We hereby certify the following Assay of 76 CORE samples submitted AUG-28-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8272	Nil	
8273	Nil	
8274	0.01	Nil
8275	Nil	
8276	Nil	
8277	Nil	
8286	Nil	
8287	0.01	
8288	Nil	
8289	0.03	
8290	0.02	
8291	0.03	
8292	Nil	
8293	Nil	
8294	0.02	
8295	0.02	0.01
8296	0.02	
8297	0.03	
8298	Nil	
8299	0.03	
8300	0.01	
8301	0.02	
8302	0.06	0.04
8303	0.01	
8304	0.02	
8305	0.01	
8306	0.01	
8307	0.02	
8308	0.04	
8309	0.01	

Au was determined using 1 AT fusions

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2. FAX TO 567-6448

We hereby certify the following Assay of 76 CORE samples submitted AUG-28-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8310	0.01	
8311	0.03	
8312	0.02	
8313	0.04	
8314	0.02	
8315	0.14	0.11
8316	0.01	
8317	Nil	
8318	Nil	
8319	Nil	
8320	Nil	
8321	Nil	
8322	0.01	
8323	Nil	
8324	Nil	
8325	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3836-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-05-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 64 CORE samples submitted AUG-29-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne
8326	0.01	
8327	0.03	
8328	Nil	
8329	0.01	
8330	0.02	
8331	0.02	
8332	0.01	
8333	0.02	0.04
8334	0.02	
8335	0.02	
8336	0.01	
8337	0.02	
8338	0.01	
8339	0.01	
8340	0.02	
8341	Nil	
8342	Nil	
8343	0.02	
8344	Nil	
8345	0.01	
8346	0.01	
8347	0.01	
8348	Nil	
8349	0.05	
8350	0.02	
8351	0.02	
8352	0.02	0.02
8353	0.02	
8354	0.02	
8355	0.02	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: BATTLE MOUNTAIN CANADA INC.
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Attn: WAYNE BENHAM

Date: SEP-05-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 64 CORE samples submitted AUG-29-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8356	0.02	
8357	0.02	
8358	0.01	
8359	0.01	
8360	0.04	
8361	0.02	
8362	Nil	
8363	Nil	
8364	0.01	
8365	0.01	
8366	0.03	
8367	0.14	0.17
8368	0.03	
8369	Nil	
8370	0.02	
8371	0.01	
8372	0.01	
8373	0.02	
8374	0.02	0.01
8375	0.01	
8376	0.02	
8377	0.03	
8378	0.01	
8379	0.01	
8380	0.01	
8381	0.01	
8382	0.02	
8383	0.02	0.01
8384	0.02	
8385	0.01	

Au was determined using 1 AT fusions

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We hereby certify the following Assay of 64 CORE samples submitted AUG-29-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8386	0.02	
8387	0.01	
8388	0.02	
8389	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3841-RA1

Company: **BATTLE MOUNTAIN (CANADA) INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: SEP-04-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE ONT.P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 18 SPLIT CORE samples submitted AUG-30-91 by M.MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8390	0.01	
8391	0.01	
8392	0.01	0.02
8393	0.01	
8394	0.01	
8395	0.01	
8396	Nil	
8397	0.01	
8398	0.01	
8399	Nil	
8400	0.01	
8401	0.01	0.01
8402	0.01	
8403	0.01	
8404	0.01	
8405	0.01	
8406	0.02	
8407	0.02	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3854-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-06-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P4N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 40 CORE samples submitted SEP-03-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne
8408	0.02	
8409	0.05	0.02
8410	0.01	
8411	Nil	
8412	Nil	
8413	Nil	
8414	Nil	
8415	Nil	
8416	0.01	
8417	Nil	
8418	Nil	
8419	Nil	
8420	0.01	
8421	Nil	
8422	0.01	
8423	Nil	Nil
8424	Nil	
8425	Nil	
8426	Nil	
8427	Nil	
8428	Nil	
8429	Nil	
8430	Nil	
8431	0.01	
8432	Nil	
8433	Nil	
8434	Nil	
8435	Nil	
8436	Nil	Nil
8437	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: **BATTLE MOUNTAIN CANADA INC.**
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Attn: WAYNE BENHAM

Date: SEP-06-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 40 CORE samples submitted SEP-03-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8438	Nil	
8439	Nil	
8440	Nil	
8441	0.02	
8442	Nil	
8443	Nil	
8444	0.01	
8445	Nil	
8446	Nil	
8447	Nil	Nil

Au was determined using 1 AT fusions

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Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-09-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 79 CORE samples submitted SEP-04-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8448	Nil	
8449	Nil	
8450	Nil	
8451	Nil	
8452	Nil	
8453	0.01	
8454	0.01	
8455	0.01	
8456	0.01	
8457	0.01	0.02
8458	Nil	
8459	0.01	
8460	0.01	
8461	0.01	
8462	Nil	
8463	Nil	
8464	Nil	
8465	Nil	
8466	Nil	
8467	Nil	
8468	Nil	
8469	Nil	
8470	Nil	
8471	Nil	
8472	0.01	
8473	0.01	0.02
8474	0.01	
8475	0.01	
8476	0.01	
8477	0.01	

Au was determined using 1 AT fusions

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Attn: WAYNE BENHAM

Date: SEP-09-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 79 CORE samples submitted SEP-04-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8478	0.01	
8479	0.03	
8480	0.04	
8481	0.01	
8482	0.01	
8483	Nil	
8484	0.01	
8485	0.03	
8486	Nil	
8487	0.01	
8488	0.07	
8489	0.05	
8490	0.12	0.18
8491	0.03	
8492	0.03	
8493	0.11	
8494	0.08	
8495	0.02	
8496	0.02	
8497	0.01	
8498	0.01	
8499	0.08	
8500	0.06	
8501	0.08	
8502	0.09	
8503	0.04	
8504	0.03	
8505	0.30	0.29
8506	0.02	
8507	0.37	

Au was determined using 1 AT fusions

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Date: SEP-09-91
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We hereby certify the following Assay of 79 CORE samples submitted SEP-04-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8508	0.58	0.32
8509	0.02	
8510	0.01	
8511	0.01	
8512	0.01	
8513	0.01	
8514	0.02	
8515	0.01	
8516	0.03	
8517	0.02	
8518	Nil	
8519	0.01	
8520	0.02	
8521	0.02	
8522	0.01	
8523	0.01	
8524	0.01	0.02
8525	0.02	
8526	0.01	

Au was determined using 1 AT fusions

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1W-3889-RA1

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Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-11-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 110 CORE samples submitted SEP-06-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8527	0.03	0.01	
8528	Nil		
8529	0.01		
8530	Nil		
8531	Nil		
8532	Nil		
8533	Nil		
8534	Nil		
8535	Nil		
8536	0.02		
8537	0.02		
8538	Nil		
8539	Nil		
8540	Nil		
8541	Nil		
8542	0.01		
8543	Nil		
8544	Nil		
8545	Nil		
8546	0.36	0.36	
8547	0.17		
8548	0.04		
8549	0.06		
8550	0.18		
8551	0.10		
8552	0.08		
8553	0.62	0.70	
8554	0.03		
8555	0.05		
8556	0.02		

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Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-11-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 110 CORE samples submitted SEP-06-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8557	0.02		
8558	0.01		
8559	0.15		
8560	Nil		
8561	0.03		
8562	0.03		
8563	0.02		
8564	Nil		
8565	0.21		
8566	0.36	0.30	
8567	0.26		
8568	0.03		
8569	Nil		
8570	Nil		
8571	Nil		
8572	Nil		
8573	Nil		
8574	Nil		
8575	0.01		
8576	Nil		
8577	0.01	0.03	
8578	0.01		
8579	Nil		
8580	0.01		
8581	Nil		
8582	Nil		
8583	0.01		
8584	Nil		
8585	Nil		
8586	Nil		

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Attn: W. BENHAM

Date: SEP-11-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 110 CORE samples submitted SEP-06-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8587	0.04	0.03	
8588	0.01		
8589	0.01		
8590	0.02		
8591	Nil		
8592	Nil		
8593	Nil		
8594	0.02		
8595	0.06		
8596	Nil		
8597	0.03		
8598	Nil		
8599	0.02		
8600	Nil		
8601	Nil		
8602	Nil		
8603	Nil		
8604	0.03	0.01	
8605	Nil	Nil	
8606	0.03		
8607	Nil		
8608	Nil		
8609	Nil		
8610	Nil		
8611	Nil		
8612	Nil		
8613	Nil		
8614	0.01		
8615	Nil		
8616	Nil		

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We hereby certify the following Assay of 110 CORE samples submitted SEP-06-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8617	0.01		
8618	0.03	0.01	
8619	Nil		
8620	Nil		
8621	Nil		
8622	Nil		
8623	Nil		
8624	Nil		
8625	Nil		
8626	0.02		
8627	Nil		
8628	Nil		
8629	Nil		
8630	Nil		
8631	Nil		
8632	Nil		
8633	Nil		
8634	0.05		
8635	1.21	1.14	1.11
8636	0.09		

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Assay Certificate

1W-3913-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-13-91
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We hereby certify the following Assay of 67 CORE samples submitted SEP-09-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8637	0.01	
8638	Nil	
8639	Nil	
8640	0.01	
8641	Nil	
8642	0.02	
8643	0.05	
8644	0.04	
8645	0.07	
8646	0.04	
8647	0.07	
8648	0.06	
8649	0.20	0.37
8650	0.05	
8651	0.14	
8652	0.06	
8653	0.06	
8654	0.10	
8655	0.05	
8656	0.01	
8657	0.03	
8658	0.04	
8659	0.04	
8660	0.03	
8661	0.06	0.06
8662	0.03	
8663	0.04	
8664	0.02	
8665	Nil	
8666	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Attn: WAYNE BENHAM

Date: SEP-13-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 67 CORE samples submitted SEP-09-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8667	0.02	
8668	0.13	0.10
8669	0.02	
8670	0.03	
8671	0.02	
8672	0.01	
8673	Nil	
8674	0.02	
8675	Nil	
8676	Nil	
8677	0.01	
8678	Nil	
8679	Nil	
8680	Nil	
8681	0.05	
8682	0.04	
8683	0.04	
8684	Nil	
8685	Nil	
8686	0.01	
8687	0.12	0.12
8688	0.03	
8689	0.02	
8690	0.08	
8691	0.05	
8692	0.09	
8693	0.03	
8694	0.11	
8695	0.21	
8696	0.36	0.38

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3913-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-13-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE, ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 67 CORE samples submitted SEP-09-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8697	0.88	0.83
8698	0.49	
8699	0.41	
8700	0.07	
8701	0.09	
8702	0.10	
8703	0.14	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3916-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-13-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 41 CORE samples submitted SEP-10-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8704	0.04	
8705	Nil	
8706	Nil	
8707	Nil	Nil
8708	0.02	
8709	Nil	
8710	Nil	
8711	Nil	
8712	Nil	
8713	Nil	
8714	Nil	
8715	Nil	
8716	Nil	Nil
8717	Nil	
8718	Nil	
8719	Nil	
8720	Nil	
8721	Nil	
8722	Nil	
8723	Nil	
8724	Nil	
8725	Nil	
8726	Nil	
8727	Nil	
8728	Nil	
8729	Nil	
8730	Nil	
8731	Nil	Nil
8732	Nil	
8733	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3916-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-13-91
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We hereby certify the following Assay of 41 CORE samples submitted SEP-10-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8734	0.02	
8735	Nil	
8736	Nil	
8737	0.01	
8738	Nil	Nil
8739	Nil	
8740	Nil	
8741	0.02	
8742	0.01	
8743	Nil	
8744	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3941-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-16-91
Copy 1. P.O.BOX 635,, KIRKLAND LAKE ONT P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 30 CORE samples submitted SEP-11-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne
8745	Nil	
8746	0.07	
8747	0.01	
8748	0.04	
8749	Nil	
8750	Nil	Nil
8751	Nil	
8752	0.01	
8753	0.02	
8754	Nil	
8755	0.02	
8756	0.06	
8757	0.04	
8758	Nil	
8759	0.01	
8760	0.02	
8761	0.11	
8762	0.33	0.38
8763	Nil	
8764	0.01	
8765	Nil	
8766	Nil	
8767	0.01	
8768	0.03	
8769	Nil	
8770	0.04	
8771	Nil	
8772	Nil	
8773	0.07	
8774	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: BATTLE MOUNTAIN (CANADA) INC.
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-17-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 47 CORE samples submitted SEP-12-91 by .

Sample Number	Au g/tonne	Au check g/tonne
8775	Nil	
8776	0.03	
8777	0.03	
8778	0.01	
8779	0.03	
8780	0.01	0.01
8781	0.01	
8782	Nil	
8783	Nil	
8784	Nil	
8785	0.01	
8786	Nil	
8787	Nil	
8788	Nil	
8789	Nil	
8790	Nil	
8791	Nil	
8792	0.01	
8793	0.01	0.01
8794	0.01	
8795	0.02	
8796	0.02	
8797	0.01	
8798	0.01	
8799	Nil	
8800	Nil	
8801	0.01	
8802	0.01	
8803	0.01	
8804	0.02	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-17-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 47 CORE samples submitted SEP-12-91 by .

Sample Number	Au g/tonne	Au check g/tonne
8805	Nil	
8806	Nil	
8807	0.02	
8808	0.02	
8809	0.01	
8810	Nil	
8811	0.01	
8812	0.01	
8813	0.01	0.01
8814	0.01	
8815	Nil	
8816	0.03	
8817	Nil	
8818	Nil	
8819	Nil	
8820	Nil	
8821	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3951-RA1

Company: **BATTLE MOUNTAIN CANADA INC**
Project: 75--JV-28
Attn: W. BENHAM

Date: SEP-18-91
Copy 1. P.O.BOX 635, KIRKLAND LAKE ONT P2N 1K3
2. FAX TO 567-6448

We hereby certify the following Assay of 10 CORE samples submitted SEP-13-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8822	0.10		
8823	0.02		
8824	0.05		
8825	0.06	0.10	
8826	18.82	18.48	19.10
8827	0.22	0.27	
8828	0.02		
8829	0.11		
8830	0.02		
8831	0.04		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3969-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-20-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 55 CORE samples submitted SEP-16-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8831 not rec'd		
8832	Nil	
8833	0.02	
8834	Nil	
8835	0.01	
8836	Nil	
8837	Nil	
8838	Nil	
8839	0.02	Nil
8840	0.01	
8841	Nil	
8842	Nil	
8843	0.02	
8844	0.02	
8845	Nil	
8846	Nil	
8847	Nil	
8848	Nil	
8849	Nil	
8850	Nil	
8851	Nil	
8852	0.01	
8853	Nil	
8854	0.01	
8855	0.05	0.10
8856	Nil	
8857	0.01	
8858	0.01	
8859	Nil	
8860	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3969-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-20-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 55 CORE samples submitted SEP-16-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8861	0.01	
8862	Nil	
8863	Nil	
8864	Nil	
8865	Nil	
8866	Nil	
8867	0.09	0.10
8868	0.06	
8869	0.03	
8870	0.07	
8871	0.09	
8872	0.04	
8873	0.16	
8874	0.11	
8875	0.02	0.02
8876	0.05	
8877	0.02	
8878	0.03	
8879	Nil	
8880	Nil	
8881	0.01	
8882	0.02	
8883	0.03	
8884	0.03	
8885	0.03	
8886	0.02	
8887		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3999-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-25-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 42 CORE samples submitted SEP-18-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8886 not rec'd		
8887	0.05	
8888	0.06	0.05
8889	0.01	
8890	Nil	
8891	0.01	
8892	0.03	
8893	0.04	
8894	0.07	0.07
8895	0.02	
8896	0.02	
8897	0.02	
8898	0.01	
8899	0.01	
8900	0.05	
8901	0.01	
8902	0.01	
8903	0.01	
8904	0.03	
8905	0.02	
8906	0.02	
8907	0.04	0.03
8908	0.02	
8909	0.02	
8910	Nil	
8911	0.04	
8912	0.02	
8913	Nil	
8914	0.01	
8915	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-3999-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-25-91
Copy 1. P.O.BOX 635, KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 42 CORE samples submitted SEP-18-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8916	0.01	
8917	0.02	
8918	0.01	
8919	0.02	
8920	0.03	
8921	0.03	
8922	0.01	
8923	0.04	0.02
8924	0.02	
8925	0.01	
8926	0.01	
8927	0.01	
8928	0.03	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4006-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-26-91

Copy 1. P.O.BOX 635,KIRKLAND LAKE, ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 45 CORE samples submitted SEP-19-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8929	0.04	0.03
8930	0.01	
8931	0.07	
8932	0.20	
8933	0.03	
8934	0.01	
8935	Nil	
8936	0.03	
8937	Nil	
8938	Nil	
8939	Nil	
8940	0.02	
8941	0.02	
8942	0.02	
8943	0.01	
8944	0.02	
8945	0.04	
8946	0.03	
8947	Nil	
8948	0.15	0.15
8949	0.07	
8950	0 02	
8951	Nil	
8952	Nil	
8953	0.03	
8954	0.01	
8955	Nil	
8956	0.02	
8957	0.13	0.11
8958	Nil	

Au was determined using 1 AT fusions

Certified by G. Pelot

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1W-4006-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-26-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 45 CORE samples submitted SEP-19-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
8959	0.06	
8960	0.09	
8961	0.03	
8962	0.01	
8963	0.02	
8964	0.02	
8965	0.02	
8966	Nil	
8967	0.05	
8968	0.01	
8969	0.05	
8970	0.16	0.13
8971	0.07	
8972	0.01	
8973	0.05	

Au was determined using 1 AT fusions

Certified by G. Thibault

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Assay Certificate

1W-4019-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-26-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 46 CORE samples submitted SEP-20-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
8974	0.01		
8975	0.02		
8976	0.05	0.05	
8977	0.02		
8978	0.02		
8979	0.04		
8980	Nil		
8981	Nil		
8982	Nil		
8983	Nil		
8984	0.06		
8985	2.26	2.69	2.30
8986	0.03		
8987	0.01		
8988	0.30		
8989	0.02		
8990	0.37		
8991	0.07		
8992	0.01		
8993	0.23		
8994	0.30		
8995	0.85	0.77	
8996	0.73		
8997	0.23		
8998	0.11		
8999	0.68	0.70	
9000	0.03		
9001	0.02		
9002	0.25		
9003	0.05		

Au was determined using 1 AT fusions

Certified by G. Gibbs

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Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-26-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 46 CORE samples submitted SEP-20-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9004	0.07		
9005	0.01		
9006	0.02		
9007	0.03		
9008	0.02		
9009	0.03		
9010	0.03		
9011	0.03		
9012	0.01		
9013	0.06		
9014	0.08		
9015	0.17	0.20	
11901	0.02		
11902	0.13		
11903	0.01		
11904	Nil		

Au was determined using 1 AT fusions

Certified by G. Gibbs

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Assay Certificate

1W-4026-RA1

Company: BATTLE MOUNTAIN (CANADA) INC.
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-27-91
Copy 1. BOX 635, KIRKLAND LAKE, ONT P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 61 CORE samples submitted SEP-23-91 by M. MASSON.

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Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9016	0.04		
9017	0.03		
9018	0.03		
9019	0.02		
9020	0.03		
9021	0.02		
9022	0.07	0.07	
9023	0.05		
9024	Nil		
9025	0.05		
9026	0.06		
9027	0.05		
9028	0.04		
9029	0.01		
9030	0.02		
9031	0.06		
9032	0.08		
9033	0.12		
9034	1.49	1.33	1.51
9035	0.03		
9036	0.05		
9037	0.06		
9038	0.12		
9039	0.03		
9040	0.12		
9041	0.32	0.45	
9042	0.32		
9043	0.38		
9044	0.13		
9045	0.31		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4026-RA1

Company: **BATTLE MOUNTAIN (CANADA) INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: SEP-27-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 61 CORE samples submitted SEP-23-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9046	0.31		
9047	0.41		
9048	0.42	0.27	
9049	0.18		
9050	0.03		
9051	0.07		
9052	0.21		
9053	0.02		
9054	0.08		
9055	0.37		
9056	0.03		
9057	0.01		
9058	Nil		
9059	Nil		
9060	0.32		
9061	0.32	0.35	
9062	0.04		
9063	0.06		
9064	0.05		
9065	0.29		
9066	Nil		
9067	0.06		
9068	0.07		
9069	Nil		
9070	0.05		
9071	0.02		
9072	0.02		
9073	0.01		
9074	0.01		
9075	0.02		
9076	0.01		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Assay Certificate

1W-4068-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: SEP-30-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 18 CORE samples submitted SEP-26-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
9077	0.01	
9078	0.01	
9079	0.01	
9080	Nil	
9081	0.01	
9082	0.01	0.01
9083	Nil	
9084	0.01	
9085	0.01	
9086	0.01	
9087	0.01	
9088	0.01	
9089	0.01	
9090	0.01	
9091	0.01	
9092	0.02	
9093	0.03	
9094	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Assay Certificate

1W-4075-RA1

Company: **BATTLE MOUNTAIN**
Project: 75-JV-28
Attn: W. BENHAM

Date: OCT-01-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT.P2N 1K3
2. FAX:567-6448

We hereby certify the following Assay of 29 SAWN CORE samples submitted SEP-27-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
9095	Nil	
9096	Nil	
9097	Nil	
9098	0.01	
9099	Nil	
9100	Nil	
9101	0.01	
9102	Nil	Nil
9103	0.01	
9104	0.01	
9105	0.01	
9106	Nil	
9107	0.02	
9108	Nil	Nil
9109	Nil	
9110	Nil	
9111	Nil	
9112	0.01	
9113	Nil	
9114	0.01	
9115	Nil	
9116	0.01	
9117	Nil	
9118	0.05	0.06
9119	0.02	
9120	Nil	
9121	0.01	
9122	Nil	
9123	0.01	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244. FAX (705) 642-3300

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Established 1928

Assay Certificate

1W-4086-RA1

Company: **BATTLE MOUNTAIN (CANADA) INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: OCT-02-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,,ONT.,P2N 1K3
2. FAX TO 567-6448

We hereby certify the following Assay of 42 CORE samples submitted SEP-30-91 by R.PEEVER.

Sample Number	Au g/tonne	Au check g/tonne
9124	0.01	
9125	Nil	
9126	0.01	
9127	Nil	Nil
9128	Nil	
9129	Nil	
9130	Nil	
9131	Nil	
9132	Nil	
9133	Nil	
9134	Nil	
9135	Nil	
9136	Nil	
9137	Nil	
9138	Nil	
9139	Nil	
9140	Nil	
9141	Nil	
9142	0.01	
9143	Nil	
9144	Nil	
9145	Nil	
9146	Nil	
9147	Nil	
9148	Nil	
9149	Nil	
9150	0.01	0.01
9151	Nil	
9152	Nil	
9153	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: **BATTLE MOUNTAIN (CANADA) INC.**
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Attn: W.BENHAM

Date: OCT-02-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,,ONT.,P2N 1K3
2. FAX TO 567-6448

We hereby certify the following Assay of 42 CORE samples submitted SEP-30-91 by R.PEEVER.

Sample Number	Au g/tonne	Au check g/tonne
9154	0.02	
9155	Nil	
9156	Nil	
9157	Nil	
9158	Nil	
9159	Nil	
9160	Nil	
9161	Nil	
9162	Nil	Nil
9163	Nil	
9164	0.01	
9165	0.06	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4097-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: OCT-03-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE, ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 33 CORE samples submitted OCT-01-91 by R. PEEVER.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9166	0.02	0.02	
9167	0.02		
9168	0.02		
9169	0.02		
9170	0.06		
9171	0.03		
9172	0.03		
9173	0.03		
9174	0.04		
9175	0.03		
9176	0.03		
9177	0.03		
9178	0.08		
9179	0.11		
9180	0.39		
9181	0.03		
9182	1.05	1.12	1.18
9183	0.01		
9184	Nil		
9185	Nil		
9186	Nil		
9187	Nil		
9188	Nil		
9189	0.02		
9190	0.02		
9191	0.02		
9192	0.04	0.05	
9193	0.01		
9194	0.02		
9195	0.01		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4097-RA1

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Project: 75-JV-28
Attn: WAYNE BENHAM

Date: OCT-03-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 33 CORE samples submitted OCT-01-91 by R. PEEVER.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9196	0.02		
9197	0.01		
9198	Nil		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4110-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: OCT-07-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont. P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 48 core samples submitted OCT-02-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
9199	0.01	
9200	0.02	
9201	0.01	
9202	Nil	
9203	0.06	0.06
9204	Nil	
9205	0.02	
9206	0.02	
9207	Nil	
9208	0.01	
9209	0.03	0.03
9210	0.01	
9211	0.02	
9212	Nil	
9213	Nil	
9214	Nil	
9215	0.01	
9216	Nil	
9217	Nil	
9218	0.02	0.02
9219	0.01	
9220	Nil	
9221	0.01	
9222	0.01	
9223	0.01	
9224	0.01	
9225	Nil	
9226	Nil	
9227	Nil	
9228	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: OCT-07-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont. P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 48 core samples submitted OCT-02-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne
9229	0.01	
9230	0.01	
9231	0.02	
9232	Nil	
9233	Nil	
9234	Nil	
9235	0.02	0.02
9236	0.01	
9237	Nil	
9238	Nil	
9239	Nil	
9240	0.01	
9241	Nil	
9242	Nil	
9243	Nil	
9244	Nil	
9245	Nil	
9246	Nil	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
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Assay Certificate

1W-4117-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: W.BENHAM

Date: OCT-04-91
Copy 1. P.O.Box 635,Kirkland Lake,Ont. P2N 3K1
2. Fax to 567-6448

We hereby certify the following Assay of 17 core samples submitted OCT-03-91 by M. MASSON.

Sample Number	Au g/tonne
9247	0.01
9248	Nil
9249	0.01
9250	Nil
9251	Nil
9252	Nil
9253	Nil
9254	0.02
9255	Nil
9256	Nil
9257	Nil
9258	0.01
9259	Nil
9260	0.01
9261	Nil
9262	Nil
9263	Nil

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Assay Certificate

1W-4120-RA1

Company: **BATTLE MOUNTAIN CANADA INC.**
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: OCT-07-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 62 CORE samples submitted OCT-03-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9264	0.03		
9265	0.02		
9266	0.01		
9267	0.01		
9268	0.02		
9269	Nil		
9270	0.09		
9271	8.30	8.43	7.99
9272	0.22		
9273	2.67	2.85	
9274	0.05		
9275	1.62		
9276	0.96		
9277	0.75		
9278	2.33		
9279	1.25		
9280	1.70	1.78	
9281	0.01		
9282	0.01		
9283	0.02		
9284	0.02		
9285	Nil		
9286	0.02		
9287	Nil		
9288	Nil		
9289	Nil		
9290	0.02		
9291	Nil		
9292	Nil		
9293	Nil		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4120-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: OCT-07-91
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2. FAX TO 567-6448

We hereby certify the following Assay of 62 CORE samples submitted OCT-03-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9294	Nil		
9295	0.02		
9296	0.58	0.34	
9297	0.20		
9298	0.03		
9299	Nil		
9300	0.02		
9301	0.05		
9302	0.01		
9303	Nil		
9304	0.02		
9305	0.01		
9306	Nil		
9307	Nil		
9308	0.29		
9309	0.02		
9310	0.02		
9311	0.03		
9312	0.69	0.82	
9313	0.12		
9314	0.02		
9315	0.09		
9316	0.36		
9317	Nil		
9318	Nil		
9319	0.02		
9320	0.44	0.48	
9321	0.02		
9322	Nil		
9323	0.04		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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1W-4120-RA1

Company: BATTLE MOUNTAIN CANADA INC.
Project: 75-JV-28
Attn: WAYNE BENHAM

Date: OCT-07-91
Copy 1. P.O.BOX 635,KIRKLAND LAKE,ONT. P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 62 CORE samples submitted OCT-03-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9324	Nil		
9325	Nil		

Au was determined using 1 AT fusions

Certified by Donna Gardner

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Assay Certificate

1W-4124-RA1

Company: **BATTLE MOUNTAIN (CANADA) INC.**
Project: 75-JV-28
Attn: W. BENHAM

Date: OCT-07-91
Copy 1. BOX 635, KIRKLAND LAKE P2N 3K1
2. FAX TO 567-6448

We hereby certify the following Assay of 18 CORE samples submitted OCT-04-91 by M. MASSON.

Sample Number	Au g/tonne	Au check g/tonne	Au 2nd g/tonne
9326	Nil		
9327	Nil		
9328	Nil		
9329	0.76		
9330	4.66	4.46	4.53
9331	0.02		
9332	0.13		
9333	0.03		
9334	0.02		
9335	0.01		
9336	0.25	0.21	
9337	0.02		
9338	0.01		
9339	0.01		
9340	0.02		
9341	Nil		
9342	0.03		
9343	0.03	0.03	

Au was determined using 1 AT fusions

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 9G2
(613) 749-2220 Telex 053-3233

BONDAR-CLEGG

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

REPORT: 091-42940.4 (COMPLETE)

REFERENCE INFO:

CLIENT: BATTLE MOUNTAIN (CANADA) INC.
PROJECT: NONE

SUBMITTED BY: W. BENHAM
DATE PRINTED: 13-NOV-91

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	148	0.07 grams/		
2	AUR1	Au Re-assay grav.	2	0.03 G/T		
3	AUR2	Au Reassay of reject	9	0.03 G/T		
4	AUR2	Au Reassay of reject	2	0.03 G/T		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
DRILL CORE	149	-200	149	Pulverizing	102
				Crush,Pulverize -200	47

REMARKS: THIS IS A CORRECTION CERTIFICATE AND SUPERCEDES ALL PREVIOUS COPIES OF THE REPORT.

ALL THE SAMPLES THAT WERE FOR RE-ANALYSIS WERE RE-PREPARED, EXCEPT FOR SAMPLES 7941 AND THE FIRST RE-TEST OF SAMPLE 9295 WHO WERE DONE ON THE ORIGINAL PULPS.
RE-ANALYSIS SHOWED THAT SAMPLES 9329 AND 9330 WERE INADVERTENTLY SWITCHED DURING THE ORIGINAL ASSAYING.

REPORT COPIES TO: MR. WAYNE BENHAM
FAX: 705-567-6448

INVOICE TO: MR. WAYNE BENHAM

Bondar-Clegg & Company Ltd.
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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

Certificate of Analysis

REPORT: 091-42940.4 (COMPLETE)

DATE PRINTED: 13-NOV-91

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T	SAMPLE NUMBER	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T
7629		0.14				7944		1.77			
7630		0.71				7945		2.71			
7631		0.98				7946		0.82			
7632		<0.07				7947		12.69			
7633		0.21				7948		0.34			
7634		<0.07				7949		0.26			
7635		0.13				7950		2.80			
7636		1.16				7951		18.96		22.05	
7637		1.77				7952		23.54			
7638		0.23				7953		0.19			
7639		1.10				8283		<0.07			
7660		0.28				8311		<0.07			
7661		11.14		12.30		8312		<0.07			
7662		1.74				8313		0.09			
7663		<0.07				8314		<0.07			
7664		<0.07				8315		0.08			
7665		2.81				8316		<0.07			
7666		4.49		4.72		8366		<0.07			
7667		0.39				8367		0.09			
7668		0.07				8368		0.13			
7669		0.29				9179		0.09			
7670		<0.07				9180		0.36			
7671		<0.07				9181		0.11			
7672		0.26				9182		0.86			
7673		13.53				9270		0.08			
7749		0.74				9271		7.26			
7750		0.21				9272		0.28			
7751		0.23				9273		2.65			
7752		0.09				9274		<0.07			
7753		0.41				9275		1.15			
7754		0.09				9276		1.06			
7847		0.11				9277		0.83			
7848		0.09				9278		2.04			
7849		0.14				9279		1.00			
7850		IS				9280		2.02			
7851		0.47				9295		1.70	1.71	1.95	1.85
7940		0.07				9296		0.21			
7941		39.08	41.80	IS		9297		<0.07			
7942		2.50				9308		0.25			
7943		0.26				9309		<0.07			

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A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: 091-42940.4 (COMPLETE)

DATE PRINTED: 13-NOV-91

PROJECT: NONE

SAMPLE NUMBER	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T	SAMPLE NUMBER	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T
9310		<0.07				13869		0.31			
9311		<0.07				13870		0.31			
9312		0.64				13871		<0.07			
9313		0.15				13872		5.89		6.02	
9314		<0.07				13873		3.68		4.20	
9315		<0.07				13874		<0.07			
9316		0.15				13875		0.24			
9317		<0.07				13876		<0.07			
9318		<0.07				13877		5.51		6.10	
9319		<0.07				13878		<0.07			
9320		0.32				13879		<0.07			
9321		<0.07				13880		<0.07			
9322		<0.07				13881		0.15			
9323		<0.07				13882		6.64		6.93	
9329		0.75	IS	0.65	IS	13883		1.01			
9330		4.15	IS	3.81	3.87	13884		1.97			
9331		<0.07				13885		0.40			
9332		0.13				13886		1.48			
9333		<0.07				13887		0.11			
9334		<0.07				13888		<0.07			
9335		<0.07				13889		0.66			
9336		0.10				13890		0.16			
13851		0.07				13891		<0.07			
13852		0.09				13892		<0.07			
13853		0.19				13893		0.14			
13854		0.12				13894		0.09			
13855		0.21				13895		<0.07			
13856		<0.07				13896		<0.07			
13857		0.25				13897		0.43			
13858		0.10									
13859		0.11									
13860		1.93									
13861		0.12									
13862		0.07									
13863		<0.07									
13864		0.71									
13865		0.16									
13866		0.09									
13867		16.33		16.38							
13868		0.07									

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Certificate of Analysis

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: 091-42940.4 (COMPLETE)

DATE PRINTED: 13-NOV-91

PROJECT: NONE

STANDARD NAME	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T	STANDARD NAME	ELEMENT UNITS	Au grams/	AUR1 G/T	AUR2 G/T	AUR2 G/T
Number of Analyses		-	-	-	-						
Mean Value		-	-	-	-						
Standard Deviation		-	-	-	-						
Accepted Value		-	-	-	-						
Number of Analyses		-	-	-	-						
Mean Value		-	-	-	-						
Standard Deviation		-	-	-	-						
Accepted Value		-	-	-	-						
CANMET REF. STD.		-	-	17.60	-						
Number of Analyses		-	-	1	-						
Mean Value		-	-	17.600	-						
Standard Deviation		-	-	-	-						
Accepted Value		17.04	-	-	-						

APPENDIX III

CERTIFICATE OF QUALIFICATIONS

CERTIFICATE OF QUALIFICATIONS

I, Wayne Benham of 921 Willowdale Ave. in the City of Toronto in the Province of Ontario.

DO HEREBY CERTIFY:

1. That I am a graduate of Queen's University, Kingston, Ontario with a Bachelor of Science (B.Sc.), Geological Science, 1970.

2. That I have been practising my profession as an exploration geologist since 1970.

3. That I have personally supervised the work described in this report.

Signed 

Wayne Benham
Kirkland Lake, Ontario

Dated this November 29, 1991.

Battle Mountain (Canada) Inc.

KIRKLAND LAKE PROJECT

REPORT ON DIAMOND DRILLING PROGRAMME

JULY TO OCTOBER, 1991

AMALGAMATED KIRKLAND PROPERTY

TECK TOWNSHIP, LARDER LAKE MINING DIVISION

ONTARIO, CANADA

VOLUME II

Kirkland Lake, Ontario
November 29, 1991

W. Benham
T. J. Bottrill

Battle Mountain (Canada) Inc.

KIRKLAND LAKE PROJECT

REPORT ON DIAMOND DRILLING PROGRAMME

JULY TO OCTOBER, 1991

AMALGAMATED KIRKLAND PROPERTY

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ONTARIO, CANADA

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REPORT ON DIAMOND DRILLING PROGRAMME

JULY TO OCTOBER, 1991

AMALGAMATED KIRKLAND PROPERTY

TECK TOWNSHIP, LARDER LAKE MINING DIVISION

ONTARIO, CANADA

Kirkland Lake, Ontario
November 29, 1991

W. Benham
T. J. Bottrill

Kirkland Lake Project

Amalgamated Kirkland Drilling

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