TECHNICAL REPORT OF ACTIVITIES

ON THE

GRIZZLY DIAMOND DRILLING PROJECT

ATLIN MINING DIVISION
NTS: 104K
LONG: 132°17'W LAT: 58°13'N

Owned & Operated By:

North American Metals Corp.
1500-700 West Pender Street
Vancouver, B.C., V6C 1G8

EXPLORE B.C. PROGRAM
Grant I.D. #95/96 A-118

Volume II
Appendix V

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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,369

APPENDIX V

NAMC Logging Codes and Conventions
Diamond Drill Logs
Assay Sheets

LOGGING CODES
for
PC-XPLOR DRILL HOLE DATABASE

G:\DATA\WP51\LOGCODEWPD

TABLE 1 Drill Hole Name and Location

Hole-ID

Surface drill holes in the Golden Bear area are numbered sequentially from the first hole drilled on the property in 1983. The hole-id consists of an 8 character code. The first letter refers to the claim name (all Kodiak A holes start with the letter T because they were drilled on the former Totem claim). The next two numbers indicate the year the hole was drilled. The next two characters are DH for surface hole or UG for underground hole. The final three characters refer to the sequential hole number. Underground and surface holes have separate sequential numbering systems.

Collar Location

Collar locations of the drill holes are measured from the top of the casing. Coordinates are most generally referenced using the Mine Grid coordinate system.

Length of Drill Hole

The total depth of the hole is recorded in metres to 2 decimal places.

Project Area

The general project area is defined using this alphanumeric variable. This variable is useful for defining subsets of drill holes based on mineralized horizons or areas intersected. All Kodiak A drill holes were assigned the variable name KODIAK.

TABLE 2 Downhole Deviation Data

Depth

Depth of the downhole deviation measurement. Collar surveyed orientations have a depth of 0.00.

Azimuth

Azimuth of the downhole deviation or collar measurement reported in decimal degrees in a clockwise direction from North. North corresponds to 0.0 degrees and angles up to 360 degrees are allowed.

Dip

Dip of the downhole deviation or collar measurement reported in decimal degrees. A vertical upright drill hole has a dip of +90.0 degrees, and a vertical downward hole has a dip of -90.0 degrees.

Test Type

A brief description of the test type is recorded with this variable. Acid dip tests are recorded as ACID. Sperry-Sun single shot tests are recorded as SPERRY. Surveyed orientations (collar) are reported as SURVEY.

TABLE 3 General Drill Hole Information

Drill Hole Type

Core diamond drill holes are assigned the type DH. Reverse circulation drill holes are assigned the type RC.

Size of Core

The size of core is recorded as HQ, NQ, or BQ. If reduction had to occur during drilling, all the different sizes are indicated sequentially, i.e. HQNQ.

Start Date

This variable records the day the drill hole was collared. It is recorded using the format DD/MM/YYYY. Collaring of a hole during the morning hours of a night shift is still recorded as being for the previous day.

Stop Date

The date the hole was shut down is indicated in format DD/MM/YYYY. As with the start date, early morning night shift shutdowns are recorded as being for the previous day.

Logged By

This variable contains the initials of the geologist logging the drill hole. Up to three characters may be used.

Edited By

This variable records the initials of the person who edited the drill log.

Surveyed By

The initials of the surveyor for the collar coordinates are entered here.

Contractor

This variable records the drilling contractor for the drill hole.

Rig Type

The type of rig used to drill the hole is indicated here.

Units

By default the drill holes are logged in metres. Feet may be used in special situations.

TABLE 4 Lithology Information

From

The start of a lithologic interval is recorded to two decimal places. The top of the hole is assigned the From of 0.00. The FROM variable for the next unit must correspond to the TO variable for the present unit. Current practice does not allow for nested intervals; the lithological units are reported sequentially starting from the top of the drill hole.

To

The end of a lithologic interval is recorded to two decimal places. Please note the above discussion concerning nested lithologic intervals.

Flag

Key flags are utilized to mark geologic intervals of specific structural importance. Generally these are reserved for key fault zones which may be mineralized.

CUB	Cub Fault
BF	Bear Fault
FWF	Footwall Fault
ISH	Internal Sliver Hangingwall Fault
ISF	Internal Sliver Footwall Fault
ISL	Internal Sliver Fault
FOF	Foster's Fault
WWF	West Wall Fault
BLF	Black Fault
FLF	Fleece Fault
FWT	Footwall Fault
CNF	Central Fault
BLS	Base of Landslide

Rock Code

Rock types encountered in the different Golden Bear drilling programs have been assigned a 4 letter code as defined below:

CASE Casing - used at the top of a hole where the casing was drilled into bedrock or firm ground.

CAVE Material which has been recovered with an interval of core but which has fallen into the recovered position from higher up the hole. If labelled as cave by the drill crew, this code and interval is generally skipped as it is not included within their footage tags.

OVER Overburden - Core recovery through unconsolidated soil or gravel over bedrock.

TRIC Triconed - Interval where the hole was advanced using a tricone bit. No recovery for this interval.

LOST An interval through which no recovery of core has occurred. This code should be used sparingly; it is not intended for zones of poor recovery.

VNQZ Quartz vein of substantial size (i.e. greater than 10 cm).

VNCA Calcite vein of substantial size.

BSDY Basaltic Dyke - Fine grained, dark green to black, equigranular "basalt" dyke. Locally may be vesicular or amygdaloidal. Correlates with Miocene Level Mountain Basalt.

ANDY Andesite Dyke - Fine grained, dark green-grey, intermediate intrusive dyke. Contains up to 20% feldspar phenocrysts up to 2 mm across enclosed in an aphanitic groundmass.

RHDY Rhyolite dyke.

DIDY Diorite Dyke - Dark green, medium grained intrusive containing euhedral pyroxene and feldspar crystals up to 4mm across.

GRDI Granodiorite - Coarse to medium grained granodiorite with hornblende as the chief mafic constituent. Biotite is usually present. Plagioclase forms light grey, white, or greenish subhedral crystals. Plagioclase is commonly surrounded by anhedral grains of flesh coloured K-feldspar. Clear, colourless or smoky quartz occurs as interstitial grains and subhedral crystals lining miarolitic cavities.

GRDF Foliated Granodiorite - Fine to medium grained diorite to quartz monzonite. Chlorite-altered hornblende is the most abundant mafic constituent. Feldspars are opaque, chalky white or tinted pink. Characteristically shows a strong mineral alignment, both planar and linear.

GOUG Highly sheared, "punky", extremely soft clay material from an unidentifiable protolith. Assumed to be a sheared variant of the wallrock lithology.

PYTF Pyritic shear developed in mafic volcanic rocks. Rock is highly sheared, dark grey to black. It is silicified and competent to clay-rich and soft. It contains abundant fine to medium grained sulphides, mainly pyrite. Invariably anomalous in gold and silver.

PGTF Same original lithology as PYTF but entirely broken down to soft clay fault gouge by post mineral fault motion. No

original texture preserved. The gouge is dark grey, locally limonitic. Invariably anomalous in gold and silver; grade is variable.

GBRO Gabbro - Medium green, massive, porphyritic gabbro containing 1 to 4 mm crystals of plagioclase and pyroxene.

MFTF Mafic Volcanic Rock - Underground use only. Undifferentiated basaltic pyroclastic and flow rocks. Generally massive to poorly bedded. Lithologies include MFAS, MFEP, MFLP. All are dark grey to dark green in colour.

MFAS Mafic Ash Tuff - Basaltic pyroclastic rock comprised of at least 50% vitric and lithic clasts less than 2 mm across. Variants include crystal tuff where at least some of the clastic components include crystal fragments. Rock may be well bedded to poorly bedded and is typically dark green.

MFEP Mafic Epiclastic Volcanic Rock - Dark grey to green clastic sedimentary rock formed through erosion and reworking of mafic volcanic rocks. Typically well bedded with normal grading of moderately sorted clasts.

MFLP Mafic Lapilli Tuff - Basaltic pyroclastic rock comprised of vitric and lithic clasts 2mm to 64mm across which occupy greater than 50% of the rock by volume. Rock may be massive or poorly bedded and is typically dark green.

MFFL Mafic Volcanic Flow - Basaltic volcanic flow rock. Typically dark green with plagioclase and pyroxene phenocrysts 2mm to 4mm across. Commonly massive in appearance but may display pillow structures in outcrop.

MFCA Mafic Volcanic Rock, Carbonate Altered - Basaltic pyroclastic, flow, or epiclastic rocks bleached medium brown to light grey or cream. Coloured by carbonatization including development of silica, ankerite, dolomite, calcite, sericite, "mariposite", and clay enrichment. May contain up to 10% pyrite developed as patches, veinlets and envelopes. Most commonly anomalous in gold and silver; rarely ore grade.

ARGI Argillite - Fine grained, dark grey to black, massive to finely bedded, pelitic rock which is commonly graphitic. Where tectonized it may develop distinct graphitic slip planes.

CHSB Chert, Silicified and Brecciated - Matrix supported, brecciated chert with angular chert and minor dolomite or silicified dolomite clasts in a light to medium grey matrix of secondary silica. Clasts are rotated. There is commonly a heterogeneous component including minor volcanic fragments. Trace sulphides may be present. May contain anomalous gold and silver grades.

CHXB Chert, Silicified, Brecciated, and Sulphidized - Matrix supported, brecciated chert with angular primary quartz and minor dolomite or silicified dolomite clasts in a dark grey matrix of secondary silica and fine grained sulphides. Clasts are rotated. There is commonly a heterogeneous component including up to 30% tuff and pyritic tuff fragments. Commonly ore grade.

CHRT Chert - Massive to finely laminated, white to dark grey cryptocrystalline, primary quartz. May be interbedded with up to 20% limey particulate beds. May be crackled or form jigsaw breccias with a silica or ankeritic matrix. May contain minor veinlets or replaced limy layers of silica with trace pyrite. May contain anomalous gold and silver.

DOSB Dolomite, Silicified and Brecciated - Matrix supported, brecciated dolomite with angular primary chert and dolomite or silicified dolomite clasts in a matrix of secondary silica. Commonly light grey but may locally be dark grey. clasts are rotated. There may be a heterogeneous component, including minor tuff fragments. Trace sulphides may be present. May contain anomalous gold and silver grades.

DOXB Dolomite, Silicified, Brecciated, and Sulphidized - Matrix supported, brecciated dolomite with angular clasts of primary chert, dolomite, or silicified dolomite in a dark grey matrix of secondary silica and fine grained sulphides. Clasts are rotated. There is commonly a heterogeneous component including up to 30% tuff and pyritic tuff fragments. Commonly has anomalous gold and silver grades.

DOCH Dolomite with Chert Interbeds - Thick bedded to massive, tan to light brown, fine to medium grained dolomite with primary fossiliferous chert as narrow discontinuous lenses, layers, or beds. Primary chert forms greater than 20% of the unit. Chert occurs as white to medium grey to dark grey, massive to finely laminated layers or lenses (nodules) in the dolomite. No sulphides are present in this lithology unless silicified. Where tectonized, this rock is extensively fragmental with abundant, angular to rounded, large fragments of chert up to 8cm across and smaller fragments of dolomite up to 3cm across.

DOLO Dolomite - Massive to thick bedded, tan to light brown, fine to medium grained dolomite. Contains up to 20% discontinuous primary chert layers. Where tectonized this rock appears extensively fragmental with angular to rounded dolomite and chert fragments up to 5cm across.

LMBC Limestone, Banded and Crinoidal - Buff to tan or grey coloured, thin bedded limestone locally containing crinoidal bioclastic debris. May contain cherty layers.

LMST Limestone - Massive or thick to medium bedded, calcitic limestone. White to pale grey in colour with local bioclastic debris or argillaceous components.

KRST Karst Breccia Zone: used either for karst-related textures or for lost zones caused by karst holes within the rocks being drilled. Breccias consist of limestone and chert clasts in a fine grained, orange brown, limonitic sand to silt matrix. Matrix may contain some sedimentary textures. The karst breccias typically contain late, anastamosing, translucent grey, calcite veinlets which crosscut all other features.

PHYL Phyllite - Fine grained, dark, clastic sedimentary rock with secondary fine grained mica development forming a platy phyllitic texture and lustrous sheen. Typically intercalated with volcanic rocks which have been largely converted to greenstone and chlorite-amphibole schist. Primary bedding and textural features are preserved.

LMSL Silicified Limestone - Rock is severely silicified, but may retain some features described under LMST or LMBC (*i.e.*

bedding, laminae, bioclastic debris). Rock cannot be scratched with a steel blade. Rock does not effervesce in 10% HCl.

SLST Siltstone - Generally greyish to orange-brown in colour. Contains greater than 50% silt size material and less than 50% carbonate minerals. Massived to bedded and/or laminated. Locally interbedded with LMBC, LMST, and/or LMSL. Pyrite may be present as disseminated cubes or aggregates. Locally fossiliferous.

HLBX Heterolithic Breccia - Breccia containing more than one lithology type among the clasts.

LMBX Limestone Breccia - Breccia containing limestone and silicified limestone as the dominant clast lithology. It is suggested that this code be discontinued; instead use the appropriate limestone code with BX as the first texture.

LMCH Limestone with Chert - Texturally identical to DOCH. Fine to medium grained, off white to light grey, calcitic limestone with primary chert lenses or layers. Chert bands are typically pale grey.

LMGT Limestone, Graphitic and Thin Bedded - Thinly bedded, medium dark to dark grey, calcitic limestone. Bedding occurs on a scale of 5cm to 30cm. The unit appears to be nonfossiliferous. Surface weathering results in a strong ribbed appearance with dark grey limestone weathering recessively and calcareous quartz siltstone weathering in relief. Incipient black chert lenses are developed preferentially in the siltstone interbeds.

Colour

Two alphanumeric characters are used to describe the colour of the rock type. If two colours are listed together, the dominant colour is the second entry. RU, for example, is reddish brown. Colours such as pink can be described as 7R = light red.

Lightness Scale	
9	palest
8	pale
7	light
6	light-ish
5	medium (50% light)
4	dark-ish
3	dark
2	very dark
1	darkest

Colour Scale	
A	grey
B	blue
G	green
L	lime (YG)
M	mauve
N	black
O	orange
P	purple
Q	aqua (BP)
R	red
T	tan (khaki)
U	brown (umber)
V	violet (BP)
W	white
Y	yellow

Texture

Four different textures may be described by these two letter codes. The dominant texture should be listed first and the most poorly developed texture should be listed last.

AM	amygdaloidal
BD	bedded
BN	banded
BW	boxworked
BX	brecciated
CR	crackled
FO	foliated
GO	gouged
GN	gneissic
GR	graded
LM	laminated
MS	massive
PH	phyllitic
PL	plutonic
PP	porphyritic
RB	rebrecciated
SC	schistose
SH	sheared
SK	stockworked
VG	vuggy
VN	veined
VS	vesicular

Structural Intensity

This two character code indicates the degree of fracturing, brecciation, or gouge present in the geologic interval. The first character indicates the type of structural disturbance using the definitions below:

0 no brecciation, no shearing, no gouge. Minor fracturing.(no structural intensity modifier is required, ie. No second character)
1 fracturing, only minor gouge and brecciation
2 brecciation and gouge

The second character indicates the degree of intensity of the structural disturbance using the following definitions:

2 very weak
4 fairly weak
6 fairly strong
8 very strong
9 completely

Alteration Facies/Intensity

This two character code indicates the alteration facies and the alteration intensity of the geologic interval. The codes are defined below:

Carbonate Package

0 very weak to unaltered limestone

12 weakly dolomitized
14 moderately dolomitized — less than 15% quartz
16 strongly dolomitized
18 very strongly dolomitized

19 totally dolomitized

22 weakly silicified — may be dolomitized
24 moderately silicified
26 strongly silicified
28 very strongly silicified

29 totally silicified

Greenstone Package

0	very weak to unaltered greenstone	
12	weakly veined, bleached	less than 1%
14	moderately veined, bleached	pyrite and/or
16	strongly veined, bleached	fine sulphides
18	very strongly veined, bleached	
19	totally bleached	
22	weakly bleached, pyritized	
24	moderately bleached, pyritized	greater than 1%
26	strongly pyritized, possibly bleached	pyrite and/or
28	very strongly pyritized, possibly bleached	fine sulphides
29	intensely pyritized, possibly bleached	

Structural Identity

Distance: enter the depth at which the structure occurs.

A two letter code describes structural features observed in the geologic interval. Any number of structures may be defined.

BD	bedding	QA	quartz-Fe carbonate vein
BN	banding	QC	quartz-calcite vein
CD	calcite-dolomite vein	QD	quartz-dolomite vein
CM	chilled margin	QV	quartz vein
CV	calcite vein	SH	shear
DV	dolomite vein	SS	slickensides
FC	fault contact	SV	sulphide vein
FR	fracture	UC	upper contact
FO	foliation	VN	vein
FZ	fault/fracture zone	$$	sheeting
LC	lower contact	FS	flame structure
LM	lamination		

Thickness of Structure

The thickness scale is used to indicate the thickness of the structural feature described immediately above.

9	extremely thick	greater than 20m
8	very thick	20m
7	thick	6m
6	medium thick	2m
5	medium	60cm
4	medium thin	20cm
3	thin	6cm
2	very thin	2cm
1	laminated	0.6cm
0	thinly laminated	0.2cm

Angle of Structure

The angle of the above structural feature relative to the core axis. Structures going straight down the core axis have an angle of 0.

Mineral

Certain alteration and/or ore minerals are noted during the core logging. The following abbreviations are used for the different minerals:

QZ	quartz	PY	pyrite
CA	calcite	CP	chalcopyrite
AK	ankerite	LI	limonite
CL	chlorite	HE	hematite
GY	gypsum	JA	jarosite
MU	muscovite-sericite	SC	scorodite
CY	clay	FS	fine sulphides
FU	"mariposite"		
DO	dolomite		

Mineral - How

The following two letter code indicates how the alteration and ore minerals occur.

AM	amygdules	SP	spots
BL	blebs	PR	pervasive
BM	breccia matrix	PT	patches (as in quilts)
CO	coatings	CC	rosettes and crystal clusters
CL	clasts	SL	selvages
DS	disseminated	$$	sheeting
EN	envelopes	ST	staining (as in tarnish)
FC	framework crystals	EU	euhedral crystals
GO	gouge	VN	veins, macroveins, microveins
RP	replaced, phenocrysts	BW	boxwork
EY	eyes, augen	DA	dalmationite
IN	interstitial		
SK	stockwork		
LM	laminations - bedded		
MS	massive		
ND	nodules		

Mineral - Amount

The two character numeric code indicates the amount of the alteration or ore mineral present. Enter the estimated % from 0 to 99.

TABLE 5 - Assay Information

From

The start of an assay interval is recorded to two decimal places. Assay intervals should not cross lithologic interval boundaries. The assay intervals are reported sequentially starting from the top of the drill hole. Intervals without assays are not entered into the PC-XPLOR database.

To

The end of an assay interval is recorded to two decimal places.

Sample Tag Number

The sample tag number for a particular assay interval is reported. This field is alphanumeric. In the Golden Bear drill hole database the sample tag numbers are not unique; therefore assay values cannot be merged into the the database.

Recovery

The length of core present within an assay interval is recorded to two decimal places in the recovery column. This variable is reported as metres. It is converted to a % within the database using data manipulation.

Au g/t

Gold assay values in grams/tonne are recorded to two decimal places.

Ag g/t

Silver assay values in grams/tonne are recorded to one decimal place. This value is not always present.

TABLE 6 - Geotechnical Data

All geotechnical information is collected between footage tags present in the core box. Each intervals between footage tags represents a single drill run where the core tube is retrieved and core is placed in the core box.

From

The start of a geotechnical interval is recorded to two decimal places. Geotechnical intervals are between drill runs and will cross lithologic and assay interval boundaries. The geotechnical intervals are reported sequentially starting from the top of the drill hole.

To

The end of a geotechnical interval = drill run is recorded to two decimal places.

Recovery

The actual length of recovered core is reported in metres to two decimal places. Efforts should be made to "squeeze" spread out core back together before measuring the amount of core recovered.

RQD - Rock Quality Designation

The RQD per drill run is recorded to two decimal places. This variable records the sum of the lengths of core which are longer than twice the core diameter. For NQ core it records the sum of the lengths greater than 10cm. For HQ core the RQD reports the sum of the lengths greater than 12 cm. It is reported in metres.

Hardness

The strength of intact rock can be estimated from a simple index using tools readily available to the core logger. The following table summarizes the classification system used for estimating rock hardness.

S1	very soft clay	easily penetrated several inches by fist
S2	soft clay	easily penetrated several inches by thumb
S3	firm clay	can be penetrated several inches by thumb with moderate effort
S4	stiff clay	readily indented by thumb but penetrated only with great effort
S5	very stiff clay	readily indented by thumbnail
S6	hard clay	indented with difficulty by thumbnail
R0	extremely weak rock	indented by thumbnail
R1	very weak rock	crumbles under firm blows with point of geological hammer, can be peeled by a pocket knife

R2	weak rock	can be peeled by a pocket knife with difficulty, shallow indentations made by firm blow with point of geological hammer
R3	medium strong rock	cannot be scraped or peeled with a pocket knife, specimen can be fractured with single firm blow of geological hammer
R4	strong rock	specimen requires more than one blow of geological hammer to fracture it
R5	very strong rock	specimen requires many blows of geological hammer to fracture it
R6	extremely strong rock	specimen can only be chipped with geological hammer

Fracture Intensity

This one character numeric code indicates the fracture density for a drill run. The code ranges from 0 through 9 according to the following scale:

Fracture Frequency per 3.05 Metres	Geolog Rating
0-16	0
17-32	1
33-46	2
47-60	3
61-76	4
77-92	5
93-104	6
105-122	7
123-136	8
137-152	9

The Geolog rating is the value entered into the PC-XPLOR database.

NORTH AMERICAN METALS CORP
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # G94UG113 PROJECT AREA: GRIZZLY RAMP SECTION: 23600N

DRILL HOLE LOCATION DATA

EASTING: 25029.962

NORTHING: 23601.279

ELEVATION: 1011.073

HOLE LENGTH (M): 112.17

DRILL DIARY

STARTING DATE: NOV 26, 1994 (DD/MM/YYYY)

COMPLETION DATE: DEC 1/ 1994 (DD/MM/YYYY)

LOGGED BY: APN RIG: TRACTOR

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: EDITED BY: AB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	284.8°	-42.65	SURVEY
1	51.20	287°	-45	SPERRY.
2	112.17	288°	-44.5	"
3				
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

HIGH WATER FLOW - 25.3 M. @ 300 gpm.

CHECK LIST ASSAY REPORT ✓ CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG113

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0	1.22		CASE	/															
		- casing 0 to 1.22m																	
1.22	11.88		MFCA	AG	BD	VN	BX		12	24	BD/0/50	FR/0/60	PY/DS/1.0	1.22	3.22	16201	1.75	TR	
		- grayish green to reddy-tan, thin bedded carbonatized tuffs. Bedded @ 50° TCA. Weakly to locally, moderately qtz veined 0.2-0.5cm wide, often 50-60° TCA, 1 every 10-50cm. Local flakes of fuchsite, partic 6.0-7.0m. Pyrite as disseminations + wisps, 1% average, locally 3-5%.												3.22	5.22	16202	2.00	0.07	
														5.22	7.22	16203	2.02	0.31	
														7.22	9.22	16204	2.00	0.07	
														9.22	11.22	16205	1.87	0.03	
		Minor Bx in		3-5% py	@	6.00-6.90m								11.22	11.88	16206	0.66	0.07	
11.88	16.90		CHRT	N	BX	BD	VG	CR	12		FR/0/60	BD/0/90	PY/DS/TR	11.88	12.88	16207	1.00	0.07	
		- black, brecciated chert. Locally only mottled, bedding visible in a few preps @ 90° TCA (assuming no rotation). Breccia re-healed, but veins or zones persist. Fracts common @ 60° TCA. Trace very fine grained pyrite as disseminations. Core broken in poor												12.88	13.88	16208	0.70	0.07	
														13.88	14.88	16209	0.65	0.27	
														14.88	15.88	16210	0.48	0.14	
														15.88	16.90	16211	0.35	0.07	
		recovery from 13.88 - 16.90m.																	
		* this unit could also be interpreted to be a silicified argillite!																	
		- upper + lower contacts sharp @ 60° TCA																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG113

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
16.90	25.30		DOLO	W	MS	VG	BD		14	22	FR/0/55		PY/VN/0.1	16.90	17.90	16212	0.85	0.14	
		- white to very pale grey massive dolomite. Contains fairly												17.90	18.90	16213	0.80	0.07	
		abundant vugs (etched appearance) to 0.5cm in size. Bedding visible												18.90	19.90	16214	0.80	TR	
		only in upper 2.0m @ ± 30° TCA. Only locally silicic (upper 2.0m) w												19.90	20.90	16215	0.70	TR	
		minor py on fracts in silicic zones. Fracts common @ 55° TCA. Core is												20.90	22.25	16216	0.60	0.14	
		locally moderately to strongly broken. Moderate to heavy core loss												22.25	23.77	16217	0.45	0.07	
		from 20.72 - 25.30 m. Lower contact rubbly (@ fault that												23.77	25.30	16218	0.50	0.07	
		produced 150 gal/min H_2O).																	
25.30	28.34	FZ	LOST											25.30	28.34	16219	0.10	TR	
		- recovered ± 10cm core from 10' of drilling - void up almost an																	
		entire hole on this section. Fragments of both a DOLO + black																	
		clast on the ground rubble.																	
28.34	32.39		DOSB	5A	BX	VN			22	26		LC/0/60	PY/DS/TR	28.34	31.39	16220	0.35	TR	
		- medium grey, strongly brecciated and silicified dolomite. Bx now												31.39	32.39	16221	0.60	TR	
		silica veinlet minor ankerite veining locally. Very broken core																	
		w heavy loss from 28.39 - 31.39. Lower contact w RHDY strays @																	
		60° TCA																	
32.39	37.54		RHDY	GA	MS	GO			16	14	UC/0/60	LC/0/20	PY/DS/1.0	32.39	33.39	16222	0.95	TR	
		- medium grey, massive felsic dyke. Moderately clay altered.												33.39	34.39	16223	0.95	0.07	
		Contains ± 1% very fine disseminated pyrite. From 36.20 m to 37.54												34.39	35.39	16224	0.95	TR	
		unit is strongly fractured w ± 3-5% gouge on fracts and ± 2.0%												35.39	36.17	16225	0.80	0.07	
		disseminated py.												36.17	36.87	16226	0.70	0.27	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG113

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
	37.54													36.87	37.54	16227	0.70	0.34	
37.54	40.23		DOSB	5A	BX	VG	GO		14	26	UC/0/20		PY/DS/0.5	37.54	38.55	16228	0.70	0.14	
		-medium grey, thoroughly brecciated and strongly silicified												38.55	39.55	16229	0.72	0.07	
		dolomite. Moderately broken. Upper contact w RHDY @ 20° TCA and												39.55	40.23	16230	0.65	Tr	
		gougy. ≤ 5% vugs to 0.3 cm on core surface. Trace to 0.5% dissem																	
		py. Rare gougy surface. No regular fracture orientation																	
40.23	41.23		RHDY	GA	MS	GO			24	14	LC/0/15		PY/DS/2.0	40.23	41.23	16231	0.80	Tr	
		-greenish grey massive, fine grained felsic dyke. Considerably																	
		fracturing w gouge but no brecciation or rotation. Gouge ≤																	
		5%. Lower contact @ 15° TCA. Contains ≤ 2% fine grained, euhedral																	
		pyrite.																	
41.23	43.48		DOSB	5A	BX	VG			12	26	UC/0/15	LC/0/60	PY/DS/TR	41.23	42.44	16232	1.10	Tr	
		-medium grey, well brecciated and strongly silicified												42.44	43.48	16233	0.90	Tr	
		dolomite. Core moderately to strongly broken, but angular.																	
		Upper contact @ 15° TCA. Contains trace dissem pyrite. Numerous																	
		vugs to 0.5 cm.																	
43.48	50.78		RHDY	GA	MS	GO			12	14	FR/0/55	LC/0/45	PY/DS/1.0	43.48	44.48	16234	1.00	0.14	
		-greenish grey, fine grained felsic dyke. Massive except for												44.48	45.48	16235	1.00	Tr	
		well fractured w ≤ 5-10% gouge from 50.38 – 50.78. Ocsl												45.48	46.48	16236	0.95	Tr	
		gougy fracture throughout interval. Fracts common @ 55° TCA												46.48	47.48	16237	0.95	Tr	
		Upper contact @ 60 TCA. Lower contact @ 45° TCA. Contains ≤ 0.5-1.0												47.48	48.48	16238	0.95	Tr	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 94UG113

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
49.48	50.78												
82.55	82.95		BSDY	N	MS				0	0			
		- sharp contacts, massive black aphanitic, unfoliated basalt dyke											
50.78	87.02		DOSB	5A	Bx	VG			12	26	FR/0/45	UC/0/45	PY/DS/TR
		MED GRY, STRONG FRAC. DENS. HARD, SLIGHT CALCARIOUS, STRONG SIL. CARB.											
		5% VUGS ALONG FRAC. LOCALLY FOSSIL FRAG, LOCALLIZED SLICKENSIDE - 30° TO											
		CORE ACCESS. CORE GENERALLY BROKEN UP. 75.6-75.78 RHDY - FINE DISS. PYR.											
		82.68 - 82.88 - DARKOD ARGILITE. LOWER CONTACT NOT APPARENT.											

FROM	TO	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
		48.48	49.48	16239	1.00	0.07	
		49.48	50.48	16240	0.95	TR	
		50.48	50.78	16241	0.30	0.21	
		50.78	51.78	16242	0.70	0.07	
		51.78	52.78	16243	0.85	TR	
		52.78	53.78	16244	0.95	TR	
		53.78	54.78	16245	0.90	TR	
		54.78	55.78	16246	0.85	0.07	
		55.78	56.78	16247	0.70	TR	
		56.78	57.78	16248	0.65	TR	
		57.78	58.78	16249	0.75	TR	
		58.78	59.78	16250	0.91	0.34	
		59.78	60.78	16251	0.93	TR	
		60.78	61.78	16252	0.90	0.07	
		61.78	62.78	53	.73	TR	
		62.78	63.78	54	.81	TR	
		63.78	64.78	55	.81	TR	
		64.78	65.78	16256	.81	TR	
		65.78	66.78	16257	83	TR	
		66.78	67.78	58	.58	TR	
		67.78	68.78	59	.83	0.07	
		68.78	69.78	16260	.58	TR	
		69.78	70.78	61	1.00	0.14	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
58.78	87.02				-				~	10			
87.02	89.01		MFLA	GG	GO	BX	FR	-	28	16			
		LIGHT GREEN - FINE-MED GRAIN, DIABEC, FRAGMENTED AT BOUNDARIES - INTENSIFYING TO GOUGE, HIGHLY ALT. VOLCANICS.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
70.78	71.78	16262	.43	TR	
71.78	72.78	16263	.30	TR	
72.78	73.78	16264	.23	0.14	
73.78	74.78	16265	.88	TR	
74.78	75.78	16266	.99	0.07	
75.78	76.78	16267	.92.	TR	
76.78	77.78	16268	.90	0.07	
77.78	78.78	16269	.93	0.07	
78.78	79.78	16270	.89	TR	
79.78	80.78	16271	.96	TR	
80.78	81.78	16272	.78	0.07	
81.78	82.78	16273	.51	TR	
82.78	83.78	16274	.97	TR	
83.78	84.78	16275	.60	0.07	
84.78	85.78	16276	.97	TR	
85.78	87.02	16277	.48	TR	
87.02	88.28	16278	.53	0.82	
88.28	89.10	16279	.84	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3

DDH G94UG113

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
89.01	90.46		MFCA	AG.	BX.	FR.			26	16				89.01	89.83	16280	.80	TR	
		ALTERED VOL, LIGHT GREY-GREEN, FINE GRAIN, MOD. HARD, BRECCIA/CARBONATE.												89.83	90.23	16281	1.00	TR	
		MINOR PYR, 89.31-89.38-GOUGE, 89.81-BSDY FRAG, CONTACT ∠-75° TO C.A.												90.23	90.46	16282	1.00	TR	
90.46	92.63		BSDY.	2A	MS	PP			Ø	-	UC/0/50	LC/0/50°							
		BASALTIC DYKE, FINE GRAIN, MASSIVE, BLACK-DARK GREY-MED HARD, LOCALIZED PHENOCRYSTS, 1% TO 10% NARROW RANDOM CALCITE VEINLETS,																	
92.63	94.49		DOSB	WA.	BX	FR	GO		26	16	UG/0/70°	LC/0/70°	MIN. PY	92.63	93.64	16283	.90	TR	
		DOLOMITE-SIL.-BREC-WHITE-GREY-FINE GRAIN-MED HARD-CALCITE VEIN,												93.64	93.90	16284	1.00	TR	
		POSS DOLO.I-MINOR VUGS, 93.64-93.90-GOUGE-DARK GREY. WITH ±15% CARB												93.90	94.49	16285	.94	TR	
		BREC 10-20MM, -10MM MUD ON LOWER CONTACT																	
94.49	95.30		MFCA	WP	BX	FR.	FO		26	16				94.49	95.30	16286	.99	0.07	
		MFCA - WHITE - PALE GREEN - LIMONITE STAIN ON FOLIATION - FOLIATION ±70° AC																	
		GRADING INTO ALTERED VOLCANICS.																	
95.30	96.16		MFCA	P4	FO	PP	BX		26	12.				95.30	96.16	16286	.97	TR	
		MFCA - PURPLE - FINE GRAIN - SOFT - 30% CLASTS, WHITE - STRONG																	
		LIMONITE STAINING APPARENT FOLIATION - 60° CA.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG113

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
96.16	99.87		MFCA	PG	MS	BX			14	12.	DV	DV/11/15							
		MFCA - FAIRLY MASSIVE, MOD HARD, LIMONITE - HEMATITE STAINING, MINOR BREC. 5% SIL. VEINLETS, 96.56 - 96.67, DOCH - WHITE - PHREAS, FINE GRAIN - 45°CA. SOFT, FRAC.																	
99.87	103.18		MFCA	W.P.	BX.	FO.	MS.		14	14									
		MFCA - BREC, FINE GRAIN, SOME BLEACHING,																	
103.18	112.17		MFCA	G5	MS.	BX	FR.		0	0									
		MFCA - GREEN - FINE GRAIN - MASSIVE - HARD, MINOR HEM. ALONG FRAC. MINOR BREC. 108.8 - 110.64 - INCREASE IN BREC. + FOLIATION. EOH.																	

GOLDEN BEAR OPERATING COMPANY

DATE: Dec. 1, 1994

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16201		TR				
2		.07				
3		.31				
4		.07				
5		.03				
6		.07				
7		.07				
8		.07				
9		.27				
10		.14				
11		.07				
12		.14				
16213		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: December 3/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S=
16214	D.H. #113	TR				
15		TR				
16		0.14				
17		0.07				
18		0.07				
19		TR				
20		TR				
21		TR				
22		TR				
23		0.07				
24		TR				
25		0.07				
26		0.27				
27		0.34				
28		0.14				
29		0.07				
30		TR				
31		TR				
32		TR				
33		TR				
34		0.14				
35		TR				
36		TR				
37		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: December 3/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S=
16238		TR				
39		0.07				
40		TR				
41		0.21				
42		0.07				
43		TR				
44		TR				
45		TR				
46		0.07				
47		TR				
48		TR				
49		TR				
50		0.34				
51		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: December 4/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Hepr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16252	UGDH # 113	0.02				
53		TR				
54		TR				
55		TR				
56		TR				
57		TR				
58		TR				
59		0.02				
60		TR				
61		0.14				
62		TR				
63		TR				
64		0.14				
65		TR				
66		0.02				
67		TR				
68		0.02				
69		0.02				
70		TR				
71		TR				
72		0.02				
73		TR				
74		TR				
75		0.02				

GOLDEN BEAR OPERATING COMPANY

DATE: December 5/94

MINE ASSAY REPORT (Drill SAMPLES) Underground

ASSAYER: A. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16276	DH #113	TR				
77		TR				
78		0.82				
79		0.02				
80		TR				
81		TR				
82		TR				
83		TR				
84		TR				
85		TR				
86		0.02				
87		TR				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: DEC 5 1994
PAGE 1 OF

DRILL HOLE # 694-UG 114 PROJECT AREA: GRIZZLY SECTION: 23600

DRILL HOLE LOCATION DATA

EASTING: 25029.526
NORTHING: 23600.912N
ELEVATION: 1012.43
HOLE LENGTH (M): 103.02

DRILL DIARY

STARTING DATE: DEC 2/94 (DD/MM/YYYY)
COMPLETION DATE: 05/12/1994 (DD/MM/YYYY)
LOGGED BY: AB/RJZ RIG: #150 Superdrill
CONTRACTOR: ADVANCE CORE SIZE: NQ
SURVEYED BY: EZ EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	270.528°	+ 5.510°	Theodolite
1				
2				
3				
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	17.18	MFCA					
17.18	18.48	MFTF					
18.48	20.93	MFCA					
20.93	21.49	MFTF					
21.49	23.37	MFCA					
23.37	29.49	ANDY					
29.49	30.45	MFCA					
30.45	31.60	ANDY					
31.60	32.10	MFCA					
32.10	34.60	MFTF					
34.60	41.25	MFFL					
41.25	51.50	CHRT	* poor recovery ; dk grey				
56.25	68.22	DOSB	* " " ; grey				
68.22	68.89	BSDY	black				
68.89	84.54	DOSB	grey				
* 84.54	95.64	GOUG	FAULT ZONE				
95.64	103.02	DOLO	white				
	↓		E.O.H.				

COMMENTS:
Hole was shut down prematurely due to high pressure water (175psi) "600 gallons per minute." 60' of rods were stuck/lost in hole. No sperry sun survey was done.

CHECK LIST ASSAY REPORT ✓ CORE PHOTOS ✓

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G94 UG 114

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	5.34		MFCA	8G	MS	BX			14	19	QC/0'		PYR/VN/5	4.61	5.34	16288	.87	TR	
		MFCA - PALE GREEN - FINE GRAIN - MASS - MED HARD, MINOR QTZ - QTZ CARB VEINING WITH SOME HEM. STAINING, 20% REMOBILIZED BRECCIA WITH FINE CARB VEINING. 4.61 - 5.34 FINE GRAIN GREY PYRITE VEINLETS ± 5%																	
5.34	8.80		MFCA	GA	MS				13	24	QC/0		PYP/VN/10	5.34	7.16	16289	.98	TR	
		MFCA - PALE GREEN - GREY, FINE GRAIN, MED HARD FINE GRAIN GREY PYR VEINING ALONG FRAC. MINOR PYR CRYSTALS.												7.16	8.80	90	.98	TR	
8.80	12.35		MFCA	SA	BX	FR	GO		28	24	LC/0/40		PYR/OS/1	8.8	9.5	16291	1.00	TR	
		MFCA - PREY - FINE GRAIN - GOUGE - VERY STRONG SIL. BRECCIA, WITH MINOR PYR. MED HARD - SOFT. STRONG SERITIZATION ON AREAS OF GOUGE												9.5	11.15	16292	.21	0.34	
														11.15	12.35	16293		TR	
12.35	13.87		MFCA	5G	RB				14	12	QV/0/60		PYP/OS/1	12.35	13.11	16294	.83	TR	
		MFCA - PALE GREEN, FINE GRAIN - MASSIVE - SILICIOUS, FINE BREC. WITH QC. VEINING, MINOR SCATTERED PYR. BREC. MORIPOSITE FRAG ± 2mm. 13.31 M - TIGHT FAULT STRUCTURE 25° TCA. 13.87 - LOWER CONTACT - 40° TCA												13.11	13.87	16295	.94	TR	
13.87	16.08		MFCA	UG	BX	MS			16	14	QV/3								
		MFCA - BROWN TO PALE GREEN, MASSIVE WITH HIGH DEGREE 50% QTZ BREC. ± 4m.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94 UG114

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
16.08	17.18		MFCA	5A	BX	FO	FR.		16	14	QC/0/50	SS/0/50°	PYR/VN/4	16.08	17.18	16296	.91	TR	
		MFCA - GREY BROWN - BLEACHED, MINOR BRECCIA, RANDOM QTZ - QTZ CARB VEINING. BOTTOM CONTACT FRAC.																	
17.18	18.48		MPTF	3A.	MS	BX	FR	FO.	24	26			PYR/DS/2	17.18	18.48	16297	.97	TR	
		MPTF - FINE GRAIN - MASS. GREY - GREEN, BREC, FRACTURED + VUGGES FINE GRAIN PYP DES THROUGHOUT ± 3%.																	
18.48	20.93		MFCA	8G	MS.	BX			12	12.						16400		0.07	
		MFCA - PALE GREEN - BLEACHED - MASS. SCATTERED QC. VENING, LIMONITE STAINING ALONG FRAC. FINE QC BREC. ± 3mm. L.O ANGLE CONTACT - 20°.																	
20.93	21.49		MFTF	5A	FR.	BX.			26	24									
		MFTF - MED GREY, FINE GRAIN, FRACTURED, FINE GRAIN PYP (GREY) ALONG FRAC. ± FOLIATION.												20.93	21.49	16298	0.65	TR	
21.49	23.37		MFCA	3A	BD	GO			24	24	BD/0/10			21.49	23.37	16299	1.51	TR	
		Light cream to tan brown, bleached, locally laminated tuff. Lower contact laminae @ 3°TCA. 5cm wide crush-gouge @ 20°TCA. Lamina (wispy) often broken, discontinuous and locally interlaminated with trace amounts of black argillite. V. fine (<1mm) secondary silica (milky white) fracture fillings subparallel to laminae. Irregular patches of fl. grey silica (3x2cm) ~ 22.80m.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG114

RJE

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERAUZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
23.37	29.49		ANDY	5A	PP				14	26			Py/DS/2	23.37	24.37	16306	1.00	TR	
			Moderate grey-green, peppered, weakly foliated, crowded, feldspar porphyry. Subparallel											24.37	25.37	301	0.88	TR	
			crackled texture @ 15° TCA. 5% discontinuous milky white silica stringers (1 per 3cm) avg 1cm x 1mm											25.37	26.37	302	0.77	0.07	
			Weak foliation @ 25° TCA. Pyritohedrons as 1-3% disseminations (1mm across) throughout interval.											26.37	27.37	303	1.00	TR	
			Core moderately competant. Sharp upper contact @ 15° TCA.											27.37	28.37	304	1.00	0.07	
														28.37	29.49	16305	1.05	0.21	
29.49	30.45		MFCA	3A	MS	CR			14	24			PY/DS/1	29.49	30.45	16306	1.04	TR	
			Moderate to light grey-green, crackled (weak) with fine milky off white secondary fracture																
			fillings. Local milky white irregular patches of silica. Isolated patches of py (trace over																
			interval) <1cm along fracture surfaces. Milky white silica veinlets @ 45° TCA (5%)																
30.45	31.60		ANDY	5A	PD	FO			14	22			PY/DS/1	30.45	31.60	16307	0.93	TR	
			Moderate grey-green, weakly-moderately foliated, crowded, feldspar porphyry dyke(?)																
			or possibly x-tal tuff? Foliation @ 25° TCA. Feldspar phenos avg 3mm across and represent 60%																
			of rock volume. 2% finely disseminated py throughout interval. Core competent. Off white																
			silica veinlets (2) @ 55° TCA - 1cm wide.																
31.60	32.10		MFCA	3A	BD	FO			16	26				31.60	32.10	16308	0.50	TR	
			Pale lt cream to tan deformed, bleached, laminated, silicified tuff. Trace amounts of black dis-																
			continuous argillite (silicified). Lamina are wispy and strongly deformed - swirled. Core																
			competent.																



NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH E94UE114

RJE.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
32.10	34.60		MFTF	4A	CR	BX	FO		18	26			PY/DS/1	32.10	34.23	16309	1.30	0.07	
		Tan to moderate grey-green, deformed, brecciated, crackled, weakly bleached mafic volcanic												34.23	34.60	16310	0.40	TR	
		rock. Chaotic irregular patches (<1cm square) of milky white silica stringers. 15% of rock																	
		volume. Local section 30cm long of beige planar foliated volcanic. Foke @ 35°TCA. Core broken																	
		into 5-10cm pieces. Trace to 1% finely disseminated pyrite.																	
34.60	38.03		MFFL	3A	FO				12	24	FO/0/80		HE/MS/2	34.60	35.60	16311	0.77	TR	
		Moderate to dark grey, moderately to strongly foliated, locally-weakly foliated, mela-flow.												35.60	36.60	312	0.87	TR	
		Plagioclase phenos (avg 1x1mm) flattened along foliation planes make up 10% rock volume. Interval												36.60	37.49	313	0.89	TR	
		less foliated near bottom. Core v. competent (20-30cm sections). 5% red brown interbeds of hematite												37.49	38.03	314	0.54	0.07	
		stained areas, particularly towards bottom of interval.																	
38.03	39.26		MFFL	RG	MS				14	24			HE/MS/2 PY/DS/1	38.03	39.26	16315	1.05	0.07	
		Reddish to olive green, deformed, brecciated, silica injected, mafic flow. Irregular alteration (olive-																	
		green) patches with planar-broken milky silica stringers (1cm wide) 10% of interval. Trace amounts																	
		of very finely disseminated pyrite. Core competent-revealed by silica injection. Original textures																	
		obscured by fine stringers and chaotic alteration patches.																	
39.26	40.09		MFFL	RB	MS.	FO			14	22	FO/0/50		HE/MS/5 PY/DS/5	39.26	40.09	16316	0.83	TR	
		Strong red-brown hematitic moderately foliated mafic volcanic flow. Two off white silica stringer																	
		are 1cm wide & planar along joint sets 5-20°TCA discordant with foliation. Flow more of a																	
		grey green near bottom of interval. Patches of disseminated pyrite along fractures & foliation-																	
		5%.																	
40.09	41.25		MFFL	GA	MS	FO			12	22	FO/0/45			40.09	41.25	16317	1.16	0.07	
		Green-grey aphanitic, massive to moderately foliated mafic volcanic flow rock. Fine gn,																	
		homogenous looking ground mass. 5% white silica stringers. Bottom 30cm looking more tuffaceous																	
		with lapilli size frag (½ cm across) making up 5% of rock volume. Core v. competent,																	
		moderately hard.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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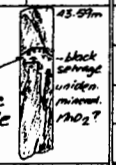
RJE

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
41.25	51.50		MFCA	4A	CR				16	22	Fo/0/80	LC/0/40	py/DS/1



General Description
Creamy tan to moderate grey, locally foliated, crackled, bleached mafic volcanic rock. Variable textures throughout interval. Milky-off white chaotic silica stringers throughout interval; avg 1mm wide (@ all angles - 10% of interval). Detailed notes: (41.25-42.25): moderately bleached and crackled; (42.25-43.25) small diff. patches-unaltered; (43.25-44.25): pseudo-dendritic(?) fine black selvages - pyrobitumite - see sketch.



(44.25-45.25) foliation @ 80°TCA; (45.25-46.25) strongly bleached interval + 10% gouge - dolomite stringers (10%); (46.25-47.25) mottled crackled; reheal w silica + dolomite; (47.25-48.25) local bleached clasts of black bedded arg; (48.25-49.25) mottled creamy tan-grey; crackled w dolomite + q/z stringers; (49.25-50.00) interbedded w black w siliceous chert or argillite with discordant milky white dolomite-q/z stringers - sketch; (50.00-51.00) mottled section - possibly porph. flow - texture obscured; (51.00-51.50) same as above + 5% py. Lower contact @ 40°TCA.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
51.50	56.25		CHRT	1A	BD	VG			14	29	BD/1/50	LC/0/40	PY/DS/1

* Poor Recovery @ bottom of interval

Black to dark grey bedded chert or silicified argillite. Moderately graphitic along fracture surfaces. Lighter (dk. grey) beds slightly larger in grain size locally replaced by milky white q/z avg 8mm wide. Core v. hard and broken into 5-10cm sections. Disseminations of pyrite (1-2mm) as small (< 1/2cm across) patches. Irregular vugs (5% of interval) avg 2mm x 8mm along fracture planes and as tension gashes

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
56.25	68.22		DOSB	5A	BX	CR	VG		28	28			

* Poor Recovery @ top of interval.

BX

Moderate grey intensely crushed and silica-dolomite cemented dolostone breccia. Clasts are a shade darker than matrix — clast supported matrix. Clasts avg. 5mm and are subangular. Monolithic ⇒ dolostone and silicified dolostone and/or chert. Texture (clast) size consistent through interval. 5% chaotic silica-dolomite stringers. 3% vugs avg 2mm in diameter. Core moderately hard and competent. Trace diss. py

BX

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
41.25	42.25	16318	0.63	TR	
42.25	43.25	319	0.95	TR	
43.25	44.25	320	0.73	TR	
44.25	45.25	321	1.00	TR	
45.25	46.25	322	0.96	TR	
46.25	47.25	16323	082	0.19	
47.25	48.25	324	0.93	TR	
48.25	49.25	325	0.93	TR	
49.25	50.00	326	0.70	0.07	
50.00	51.00	327	1.00	TR	
51.00	51.50	328	0.50	TR	
51.50	52.50	16329	0.55	0.14	
52.50	53.50	16330	0.85	TR	
53.50	56.25	16331	0.50	0.14	
56.25	58.99	16332	0.25	0.07	
58.99	60.00	16333	0.20	0.27	
60.00	61.00	334	0.63	0.34	
61.00	62.00	336	0.76	0.55	
62.00	63.00	337	0.83	0.14	
63.00	64.00	16 338	1.00	TR	
64.00	65.00	339	0.95	TR	
65.00	66.00	340	0.79	0.07	
66.00	67.00	341	0.88	0.07	
67.00	68.22	342	0.94	TR	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
68.22	68.89		BSDY	N	PP				0	0	UC/0/90	LC/0/90	

Black weakly porphyritic basalt dyke with sharp upper and lower contacts. Phenocrysts of black pyrobole minerals 1-1½ mm across make up 7% of rock volume. Trace amygdaloids of off white calcite (aphanitic matrix). V. fine <½ mm in diameter. Dyke is fresh; undeformed, unaltered. Entire interval came out in one piece. Core v. competant

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
68.89	84.54		DOSB	5A	Bx	CR	VG		28	28			

Bx

Moderate grey, intensely crushed, silica-dolomite cemented, clast supported, silicified & brecciated dolostone. Clasts are sub angular and average 8mm across. They are a darker shade of grey than the matrix and are composed primarily of silicified dolostone with minor (5-10%) chert and/or severely silicified dolostone. Clasts make up 60-70% of rock volume. Matrix is slightly lighter than clasts and is fine grain (30-40% of rock volume) Matrix slowly effervesses in cold 10% HCl when powdered. Trace - 1% chaotic, discontinuous silica-dolomite stringers are a minor occurrence as is: local areas of fine grain trace amounts of disseminated pyrite Small (1-3mm diameter) vugs are noted throughout interval. Minor gouge (trace) and weakly graphitic slip plane are local but generally uncommon. Core is hard and competent. It is fairly consistent in character throughout interval and is the same unit as interval 56.25-68.22.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
84.54	95.64		GOUG	7A	GO	BX			29	22	SH/5/65		PY/DS/1 HE/GO/1

FAULT ZONE

General Description
Very well developed fault zone with sections (boulder size) of MFCA and dk grey to black, matrix supported, clay gouge + subrounded-subangular polymictic breccia clasts. Trace to 5% very fine grain py disseminated throughout interval. Shear fabrics noted locally in gouge

Detailed Notes
(84.54-85.31): bleached MFCA + 30% gouge || (85.31-85.65): 80% grey clay gouge (3% diss py)

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
68.22	68.89	16343	0.67	0.07	
68.89	70.00	16344	0.81	TR	
70.00	71.00	16345	0.83	0.14	
71.00	72.00	16346	0.90	0.21	
72.00	73.00	16347	0.94	0.07	
73.00	74.00	16348	0.70	4.46	
74.00	75.00	16349	1.00	1.85	
75.00	76.00	16350	1.00	1.03	
76.00	77.00	16351	0.80	0.69	
77.00	78.00	16352	1.00	0.21	
78.00	79.00	16353	0.80	0.41	
79.00	80.00	16354	0.80	0.07	
80.00	81.00	16355	1.00	TR	
81.00	82.00	16356	1.00	TR	
82.00	83.00	16357	1.00	0.62	
83.00	84.00	16358	1.00	0.27	
84.00	84.54	16359	0.54	0.34	
84.54	85.31	16360	0.77	0.21	
85.31	85.65	16361	0.34	0.14	
85.65	86.26	16362	0.48	0.07	
86.26	87.00	16363	0.74	TR	
87.00	88.00	16364	0.98	TR	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
		(85.65-86.26): 1% fine diss py dk grey-black; 70% graphitic gouge											(88.38-89.50): 75% dk grey gouge (polymictic frags (subrounded)); shear fabric @ 65°TCA
		(86.26-87.00): fan MFCA; massive + 10% gouge											(89.50-89.85): 60% green-grey gouge + MFCA frag. 2% diss py
		(87.00-88.00): as above; shear gouge @ 35°TCA											(89.85-90.30): decomposed MFCA + gouge
		(88.00-88.38): MFCA; 4cm wide zone of 10% py											(90.30-91.00): 70% dk grey-black gouge + MFCA; tr py.
		(91.00-92.00): primarily decomposed MFCA + gouge											(95.00-95.64): same as 94.00-95.00m interval.
		(92.00-93.00): 65% dk grey to black wkly graphitic clay gouge w 15% subrounded DOSB + 20% MFCA clasts.											
		(93.00-94.00): same as above											
		(94.00-95.00): well developed clay gouge (dk grey-red brown) w local hematitic stain - 5%											
95.64	103.02		DOLO	W	MS				12	22			
	E.O.H.	Description for all intervals. White with local minor areas of M. grey, fine grain, crystalline, massive, dolostone with 10% medium to coarse recrystallized limestone patches. Patches are diffuse grey and irregular. Core hard, broken into angular pieces 10-20cm long. Rare occassional v. fine gn. diss py grain.											
		END OF HOLE @ 103.02m											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
88.00	88.38	16365	0.35	TR	
88.38	89.50	16366	1.20	TR	
89.50	89.85	16367	0.22	TR	
89.85	90.30	16368	0.50	TR	
90.30	91.00	16369	0.48	TR	
91.00	92.00	16370	1.00	TR	
92.00	93.00	16371	1.05	TR	
93.00	94.00	16372	0.92	TR	
94.00	95.00	16373	0.95	TR	
95.00	95.64	16374	0.55	0.07	
95.64	96.00	16375	0.30	TR	
96.00	97.00	16376	0.88	TR	
97.00	98.00	16377	1.00	TR	
98.00	99.00	16378	0.95	0.14	
99.00	100.00	16379	1.00	TR	
100.00	101.00	16380	075	TR	
101.00	102.00	16381	0.95	TR	
102.00	103.02	16382	0.70	TR	

GOLDEN BEAR OPERATING COMPANY

DATE: December 6/94

MINE ASSAY REPORT (Drill SAMPLES) Underground

ASSAYER: H. Hon

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16288	DH # 114	TR				
89		TR				
90		TR				
91		TR				
92		0.34				
93		TR				
94		TR				
95		TR				
96		TR				
97		TR				
16400		0.02				
16298		TR				
99		TR				
16300		TR				
01		TR				
02		0.02				
03		TR				
04		0.02				
05		0.21				
06		TR				
07		TR				
08		TR				
09		0.02				
10		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: December 8/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Kerr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16311	DH. # 114	TR				
12		TR				
13		TR				
14		0.02				
15		0.02				
16		TR				
17		0.02				
18		TR				
19		TR				
20		TR				
21		TR				
22		TR				
23		0.14				
24		TR				
25		TR				
26		0.07				
27		TR				
28		TR				
29		0.14				
30		TR				
31		0.14				
32		0.02				
33		0.27				
34		0.34				

GOLDEN BEAR OPERATING COMPANY

DATE: December 8/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16336	DH #114	0.55				
37		0.14				
38		TR				
39		TR				
40		0.02				
41		0.02				
42		TR				
43		0.02				
44		TR				
45		0.14				
46		0.21				
47		0.02				
48		4.46				0.41
49		1.85				0.22
50		1.03				0.15
51		0.69				
52		0.21				
53		0.41				
54		0.02				
55		TR				
56		TR				
57		0.62				
58		0.27				
59		0.34				

GOLDEN BEAR OPERATING COMPANY

DATE: December 8/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hyp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16360	D.H. # 114	0.21				
61		0.14				
62		0.07				
63		TR				
64		TR				
65		TR				
66		TR				
67		TR				
68		TR				
69		TR				
70		TR				
71		TR				
72		TR				
73		TR				
74		.07				
75		TR				
76		TR				
77		TR				
78		0.14				
79		TR				
80		TR				
81		TR				
82		TR				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____

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DRILL HOLE # G94UG115 PROJECT AREA: GRIZZLY SECTION: 23550N

DRILL HOLE LOCATION DATA		DRILL DIARY	
EASTING: 25037.999	25038.262	STARTING DATE: 06/12/1994	(DD/MM/YYYY)
NORTHING: 23551.066	23550.[illegible]	COMPLETION DATE: 07/12/1994	(DD/MM/YYYY)
ELEVATION: 1018.588	1018.[illegible]	LOGGED BY: LCP	RIG: TRACTOR
HOLE LENGTH (M): 39.93m		CONTRACTOR: ADVANCED	CORE SIZE: NQ
		SURVEYED BY: GZ	EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.0	272.950 272.938	-78.593	SURVEY
1			-78.593	
2				
3				
4				
5				

PURPOSE: Test Grizzly zone
Hole short of going through target because of water

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	0.61	CASE	Casing				
0.61	3.10	MFFL	Reddish Brown, porphyritic				
3.10	6.28	MFCA					
6.28	7.01	MFCA	FAULT BXA/CATACLASITE				
7.01	11.05	MFCA					
11.05	15.43	DOLO	Pale grey to white				
15.43	19.65	CHRT	Black chert with				
			interbands grey DOLO				
			all bxiated				
19.65	25.75	DOSB	Medium grey				
25.75	27.67	RHDY	Massive pale cream grey				
			felsic dyke/pyritic				
27.67	36.86	DOSB	Medium grey, bxiated				
			DOCH				
36.86	37.13	RHDY					
37.13	39.93	DOSB	Water at 37.49				
			Fragments of RHDY with				
			fragments of DOSB				

COMMENTS:
HOLE SHUT DOWN EARLY BECAUSE OF WATER
Water at 53 feet
Mega-Water at 123 feet

CHECK LIST ASSAY REPORT ✓ CORE PHOTOS

L. Pigage Dec 08/94

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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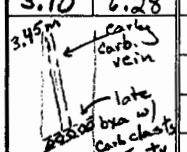
FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	0.61		CASE																
		Casing extended with shoe for 2 feet. Recovered 0.3m of dark reddish brown, foliated, porphyritic mafic volcanic. Phenocrysts flattened within foliation - pale green - originally plagioclase and now altered																	
0.61	3.10		MFFL	RU	FO	PP	VN		0	12	FO/0/75	VN/1/20	Py/SP/2	0.61	1.60	16383	0.84	TR	
		Dark reddish brown, pervasively foliated, moderately hard, noncalcareous, porphyritic, fine-grained mafic flows. Phenocrysts of former plagioclase up to 0.5cm across - now an altered pale green, soft, clay/sericite (?). Minor xcutting veinlets of white carbonate which doesn't fizz even when powdered. Patchy alteration to tan-orange "volcanic" (i.e. groundmass)												1.60	2.44	16384	0.68	TR	
														2.44	3.10	16385	0.73	TR	
		Altered areas have 2-5% pyrite spots disseminated in matrix. Pyrite not in the phenocrysts. Altered intervals about 40% lower contact gradational to altered volcanic (pervasively altered)																	
3.10	6.28		MFCA	8A	PP	VN	VG		0	24	VN/1/55	VN/1/20	Py/SP/1	3.10	4.10	16386	1.10	0.14	
		Pale grey, moderately hard, porphyritic, altered massive volcanic. Phenocrysts up to 0.5cm of former plagioclase - now pale green clay/sericit (?) Also scattered spots of bright green mariposite. Minor veining of opaque white, noncalcareous carbonate. Pyrite spots (1%) disseminated in the fine-grained, altered groundmass. Some veins slightly vuggy.												4.10	5.10	16387	0.95	TR	
														5.10	6.28	16388	1.15	0.07	
6.28	7.01		MFCA	AU	BX	GO			28	22	UC/0/80	FO/0/80	Py/SH/2	6.28	7.01	16389	0.86	0.07	
		Rounded to subangular, pale grey MFCA clasts in a dark reddish brown, fine-grained, banded matrix. Clasts range up to 2cm across. Matrix is a cataclasite. Gradational change downhole to gouged MFCA. Core broken and rubbly. Pyrite disseminated as selvages on margins of dark brown cataclasite zone. Clasts 5% up to 60% locally																	



NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigage Dec 08/1994

c:\data\expl-geo\lithol.wk3 DDH 694UG115

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
7.01	10.06		MFCA	RU	SH	GO	BX	VN	26	16	SH/0/60	FZ/1/60	

Medium dark reddish brown, moderately soft, massive mafic volcanics. Alternating with 20cm intervals of pale greenish grey to pinkish cream, altered volcanics. Entire sequence locally gouged and bxiated and contains opaque white carbonate veins. Core very broken and rubbly. Contains metamorphic shear fabric. Not a cataclasite like above unit.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
10.06	11.05		MFCA	9T	FO	MS			12	19	LC/2/50	FO/0/65	Py/DS/.1

Pale cream to greenish cream, foliated, massive, moderately soft altered volcanics. Upper contact gradational. Minor fine pyrite disseminated in matrix. Core moderately broken. Incipient gouge for 5cm @ 10.65m. Lowermost 8cm is black, very hard, noncalcareous chert with 10% fine pyrite. Irregular contact slightly gouged and bxiated — does not look like a major structure. Some interlonguing of MFCA in the CHRT at contact

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
11.05	15.43		DOLO	9A	MS	VG			14	26	BD/1/65	UC/0/70	

Hard, very light grey, massive, fine-grained dolomite locally contains thin carbonaceous streaks possibly defining Se bedding. Locally has pale grey 1-3mm circles which possibly are recrystallized crinoid stems. Slightly vuggy along fractures. Minor "carbon" along fractures. Upper contact @ 70° // lower contact at 75° to core axis. Core moderately broken on fractures to strongly broken. Fractures are acute angle to core axis. Lower contact sharp, slightly irregular.

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
7.01	8.00	16390	0.95	TR	
8.00	9.00	16391	1.25	TR	
9.00	10.06	16392	1.35	TR	
10.06	11.05	16393	1.00	0.14	
11.05	12.10	16394	1.05	TR	
12.10	13.20	16395	1.65	TR	
13.20	14.30	16396	1.30	0.21	
14.30	15.43	16397	1.10	TR	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigage Dec 08/1994

c:\data\expl-geo\lithol.wk3

DDH G94UG115

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
15.43	19.65		CHSB	2A	BX	CR	VG	MS	28	29				15.43	16.50	16398	1.15	TR	
[DOSB]		Dominant rock type is very dark grey to black, noncalcareous, very hard, fine-grained chert. So bedding not visible. Unit extensively fractured & brxiated. Core moderately broken. Contains 40% interbands of medium dark grey, strongly brxiated dolomite. Irregular broken contacts between the two rock types. Could also be logged as DOSB or brxiated DOCH. No pyrite visible.												16.50	17.55	16399	1.13	TR	
														17.55	18.55	16501	1.02	TR	
														18.55	19.65	16502	1.35	0.21	
19.65	25.75		DOSB	4A	BX	CR	VG	MS	28	26	FZ/0/30			19.65	20.73	16503	1.15	TR	
		Strongly crackled to brxiated, medium grey, fine-grained dolostone. Contains irregular bands and "fragments" of dark grey chert (5-10%). Slightly vuggy along fractures. No pyrite visible. Core very broken & rubbly along irregular fractures. Some fractures have slickensides/grooves in surface coatings on them.												20.73	21.75	16504	1.10	TR	
														21.75	22.75	16505	1.08	0.07	
														22.75	23.77	16506	1.00	TR	
														23.77	24.75	16507	0.75	TR	
25.75	26.56		RHDY	8T	MS	GO			14	24	UC/0/20	FZ/2/15	Py/SL/5	24.75	25.75	16508	1.08	0.14	
		Soft, pale cream dolostone, noncalcareous, aphanitic felsic dyke. Contacts are sharp, slightly irregular and have minor incipient gouge and brxiation along them. Internal sheared fracture zone is about 2cm thick, contains DOSB clasts. Rhyolite is altered to soft, punky clays. Fine-grained pyrite as selvages to fractures and wispy streaks in rhyolite. Locally pyrite-rich zones have anastomate shape (no Py / Py). Pyrite bands/streaks in clasts in internal brx zone are randomly oriented. Internal brx zone orientation same as external contacts. Pyrite 5-10%												25.75	26.56	16509	0.80	0.21	
26.56	26.90		DOSB	5A	BX	CR	MS	VG	28	26				26.56	26.90	16510	0.48	0.34	
		Same as Unit 19.65-25.75. Core moderately broken. No pyrite visible.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigge / Dec 09/1994

c:\data\expl-geo\litho1.wk3

DDH 694UG115

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
26.90	27.67		RHDy	9T	MS				12	24	uc/o/25		Py/SL/5	26.90	27.67	16511	0.70	0.14	
		TOP DOSB 26.90m RHDy 27.32m DOSB 27.62m DOSB RHDy BOTTOM																	
		Aphanitic, pale cream, massive felsic dyke. No chill zone. Marginal contacts slightly sheared and bxiated. Pyrite disseminated in matrix and as selvages to xcutting fractures.																	
27.67	36.86		DOSB	5A	CR	BX	MS		28	22				27.67	28.70	16512	1.30	0.14	
		Medium grey, moderately hard, fine-grained dolostone. Strongly crackled and bxiated.												28.70	29.70	16513	1.30	0.07	
[DOCH]		Contains bands and lenses of dark grey chert (5%). In Fleece Bowl area this												29.70	30.70	16514	1.13	TR	
		has been logged as bxiated DOCH. Minor vugs and light grey dolomite veins												30.70	31.70	16515	0.96	TR	
		along fractures. Core very broken to locally rubbly. No Pyrite visible												31.70	32.92	16516	1.49	0.07	
														32.92	34.44	16517	0.40	TR	
		Interval 32.92 - 34.44m recovery very poor (0.40m.) Core consists of reground												34.44	35.36	16518	0.48	TR	
		pebbles. A few pieces near top of interval are RHDy. Intvl also includes fragments												35.36	36.27	16519	0.83	0.07	
		of light grey bull qtz vein. Recovery below this intvl continues poor. Driller												36.27	36.86	16520	0.45	0.07	
		labels intvl as fault.																	
36.86	37.13		RHDy	9T	MS				12	24	uc/o/45	uc/o/45	Py/DS/2	36.86	37.13	16521	0.26	1.51	SF 0.33
		Soft, aphanitic, pale cream, massive felsic dyke. Pyrite disseminated as small																	
		crystals in dyke. Py more concentrated in groundmass of interval bxn zones. Marginal																	
		contacts sharp - locally they look slightly gouged. Dyke altered to clays. Upper and																	
		lower contacts 45° to core axis.																	
37.13	39.93		DOSB	5A	BX	MS	CR		28	22				37.13	37.49	16522	0.37	0.14	
		Rubble, often reground, of medium grey, moderately hard, strongly fractured and bxiated												37.49	39.01	16523	0.15	TR	
		dolostone. Recovery poor. Major water (170 psi) intersected at 37.49m.												39.01	39.93	16524	0.33	0.07	
		Fragments below 37.49m include 10-50% RHDy unit. Hole abandoned because of																	
		water problems. Possible fault zone @ 37.49 ??																	

EOH = 39.93

POLAR BEAR OPERATING COMPANY

DATE: December 10/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16583	D.H. #115	TR				
84		TR				
85		TR				
86		0.14				
87		TR				
88		0.07				
89		0.07				
90		TR				
91		TR				
92		TR				
93		0.14				
94		TR				
95		TR				
96		0.21				
97		TR				
98		TR				
99		TR				
16501		TR				
02		0.21				
03		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: December 10/94

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Mayr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16504	DH #115	TR				
05		0.02				
06		TR				
07		TR				
08		0.14				
09		0.21				
10		0.34				
11		0.14				
12		0.14				
13		0.02				
14		TR				
15		TR				
16		0.02				
17		TR				
18		TR				
19		0.02				
20		0.02				
21		1.51				0.33
22		0.14				
23		TR				
24		0.02				

NORTH AMERICAN METALS CORP
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # G94UG116 PROJECT AREA: GRIZZLY SECTION: 23550 N

DRILL HOLE LOCATION DATA

EASTING: 25036.131 25037.908

NORTHING: 23551.117 23551.117

ELEVATION: 1020.053 1020.053

HOLE LENGTH (M): 116.43

DRILL DIARY

STARTING DATE: 10/12/1994 (DD/MM/YYYY)

COMPLETION DATE: 13/12/1994 (DD/MM/YYYY)

LOGGED BY: RJZ/RS RIG: TRACTOR

CONTRACTOR: Advanced CORE SIZE: NQ

SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	271.38° 271.38	+16.27	SURVEY
1	57.30	264°	+ 14.2	SPERRY
2				
3				
4				
5				

PURPOSE: Test Grizzly Zone

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0	1.40	CASE					
1.40	29.93	MF??	Mafic Volcanics				
29.93	33.06	MFLA	Fault Zone in Mafic Volcanics				
33.06	60.30	MF??	Mafic Volcanics				
60.30	61.00	PYTF	Brecciated (Fault?)				
61.00	85.40	DOSB	Brecciated Dolo with rare chert				
85.40	86.02	BSOY					
86.02	86.17	DOSB	as above				
86.17	87.28	PYTF					
87.28	88.30	DOSB	Dark, silicified breccia				
88.30	89.35	PGTF	Pyritic Gouge				
89.85	90.43	DOSB					
90.43	91.65	PGTF					
91.65	93.89	MFLA					
93.89	95.20	LOST					
95.20	102.60	MF??	Mafic Volcanics				
102.60	103.90	GOUG					
103.90	106.30	DOLO	LIGHT GREY, MASSIVE				
106.30	106.80	LOST					
106.80	116.43	MFLA					
EOH AT 116.43							

COMMENTS: No dominant fault structures, however several lost zones.

CHECK LIST ASSAY REPORT ✓ CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH E94U6116

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RJZ

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
1.40	8.79		MFFL	4A	FO'	PP			14	22	FO/0/50		

Moderate to dark grey to green grey, porphyritic, andesite volcanic flow rock. Moderate foliation with paler plagioclase phenocrysts - flattened (avg. size 4×1mm) along foliation planes. Phenocrysts make up 20% of rock type. Milky white chaotic dolomite stringers avg. 4mm wide and make up 5% - 10% (locally) of interval. Trace fine (<1mm diameter) disseminations of py.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
8.79	11.25		MFCA	7A	FO	GO			16	22	FO/0/65		

Moderate to light grey colour, moderate to strongly deformed, bleached, carbonate-clay altered mafic volcanic rock. Well developed foliation showing local folding (open). Pale grey to off white clay gouge along foliation slip planes - 5% of interval. Milky-white dolomite stringers @ all angles, <3% of interval. Core broken in 8cm pieces along foliation planes.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
11.25	11.58		MFFL	3A	PP	FO			14	22	FO/0/45		

Dark grey porphyritic andesite volcanic flow rock. Moderate foliation: Phenocrysts of plagioclase avg 3×1mm in size and are elongated along planes of foliation. 5% milky white dolomite stringers avg. 4mm wide and fill planar fractures/joints. Core broken into 5cm pieces.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
11.58	26.91		MFCA	7A	FO	GO			16	22	FO/0/65		PY/DS/5



Moderate to light green grey clay-sericite-dolomitic altered volcanic tuff. Interval has strongly developed foliation; wavy to local chevron folds. 5% tr. grey-off white clay gouge between slip planes through out interval. Disseminated pyrite as patches form lenticular - lozenge shaped forms (avg. size ½×1cm), elongated along foliation. Up to 7% locally.

Core is predominately soft and decomposed throughout intrval with local harder sections

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
11.58	12.50	16525	0.78	tr	
12.50	13.50	16526	0.96	tr	
13.50	14.50	16527	0.78	tr	
14.50	15.50	16528	1.00	0.07	
15.50	16.50	16529	0.46	0.07	
16.50	17.50	16530	0.97	tr	
17.50	18.50	16531	1.00	tr	
18.50	19.50	16600 PA	0.77	tr	
19.50	20.50	16532	1.00	0.21	
20.50	21.50	16533	1.00	0.07	
21.50	22.50	16534	0.70	tr	
22.50	23.50	16535	1.00	0.41	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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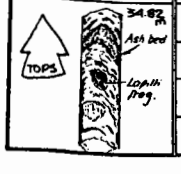
RJZ.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														23.50	24.50	16536	0.65	0.55	
														24.50	25.50	16537	0.71	0.14	
														25.50	26.91	16538	1.32	tr	
26.91	29.93		MFFL	3A	MS				16	22	LC/2/75		HE/ST/1	26.91	27.50	16539	0.54	tr	
		Dark grey, aphanitic, intermediate-mafic flow rock. Reddish patches (5% local) at bottom of interval.												27.50	28.50	16540	0.97	tr	
		-hematite stain. Light greenish-grey irregular secondary alteration (clay-carbonate) patches avg. 3×4												28.50	29.50	16541	0.95	tr	
		cm in size @ 28.35m. Associated with a broken, rehealed zone (~28.00 - 28.40m) with 10% off white discontinuous												29.50	29.93	16542	0.44	0.07	
		dolomite stringers - chaotic. Core moderately competant. Fault @ lower contact 75° TCA																	
29.93	31.26	FZ	MFFL	RB	BX	GO	PP		28	14	LC/2/75	FZ/1/50	HE/ST/10	29.93	31.26	16543	1.28	tr	
Fault Zone.		Red-brown hematite-stained fault zone injected and partially healed by chaotic and irregular milky																	
		white dolomite veinlet network. 15% gouge. Clasts of porphyritic MFFL (80% of clasts) are large (5-10cm long) and																	
		rounded out by curved slip planes + dk grey-red-brown clay gouge. 20% of clast make up are angular -																	
		subangular off white-milky dolomite. Core locally v. soft especially along gouge-slip planes.																	
31.26	33.06	FZ	MFCA	7A	GO	BX			28	14	FZ/5/30		PY/DS/5	31.26	32.00	16544	0.59	tr	
Fault Zone		Pale green-grey clay & carbonate altered mafic volcanic rock. 15-20% pale greenish clay gouge particularly												32.00	33.06	16545	1.16	tr	
		in the last 50cm of interval. Repeating gouge planes @ 30° TCA avg 3-5cm wide; widest one at																	
		the end of interval. Rock frags are altered - decomposed and reduced to gouge material along slip planes																	
		Disseminated py as patches in gouge and particularly along fractures and dolomite stringers. Core v. soft.																	
33.06	35.65		MFLP	7A	FO	LM			14										
TOPS		Pale green-grey, locally laminated, intermediate-mafic lapilli tuff. Section is moderately foliated																	
		sub ll to laminae (1-2mm wide). Top half is a fine grain ash-tuff; bottom half is a																	
		lapilli tuff; fragment range 2mm - 2cm in diameter — polymictic intermediate-mafic volc flow & lephia																	
		frags. 2 episodes of dolosmite stringers (<2% of interval) Core competant.																	



NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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RJZ

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
35.65	36.80		MFCA	7A	DP				14	14									
		Weak carbonate altered, moderate foliated, porphyritic andesite or crystal tuff. Texture partly obscured by alteration. Feldspar phenocrysts is elongated along foliation Avg. size 1x3mm. Matrix represents 40-85% of rock volume. Matrix contains sericite (minor). Fine grain trace diss. py noted. Core moderately hard and competent.																	
36.80	39.17		MFLP	4A	FO				14	12	FO/0/55								
		 37.44m flattened lapilli + ash	Moderate to dark grey, evenly foliated, ash + lapilli, intermediate - mafic volcanic rock. Occassional beige patch (10% of rock volume) - alteration front (carb-clay). Clasts are elongated, flattened along foliation planes. 5% milky-white - greyish dolomite stringers, planar @ all & TCA. Core easily scratched, moderately hard and competent.																
39.17	44.43		MFAS	5A	FO	CR			14	14	FO/0/40		HE/ST/2						
		Moderate to dark grey, spotted textured, weak - moderately foliated, intermediate - mafic crystal tuff. Beige crystals avg. 3mm in diameter, are subrounded - subangular making up 10-15% of rock volume. Matrix is a dark grey. Greenish alteration patches 10-20 cm sections are crackled with obliterated primary textures make up 15% of interval. Local hematite. limonite stain along fracture surfaces. Core competent. 30cm sections																	
44.43	45.20		MFCA	8A					12	18			HE/SL/1						
		Pale tan, bleached, dolomite injected/altered intermediate - mafic volcanic rock. "Messed up"; however still competent core. Milky white irregular coarse crystalline dolomite patches up to 7x7cm (15% of interval). Dark black-grey semi metallic selvages (2%) of tabular specularite local to dolomite patches																	
45.20	49.34		MFAS	5A	FO				14	12	FO/0/30								
		Mix of moderate grey ash, lapilli, and crystal tuff throughout the interval. Weak - moderate foliation. Chaotic network of milky white dolomite stringers with local beige alteration fronts into volcanic host. Stringers avg 2mm wide and are 10% of interval. Core competent.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
49.34	51.30		MFCA	6A	FO				14	14	FO/0/55								
		Moderate grey to tan carbonate altered intermediate to mafic rock. Alteration (biege) fronts often streaked along foliation planes. Chaotic o/l white dolomite stringers avg 1mm in width - 5% of interval. V. fine <<1mm disseminated trace amounts of pyrite noted.																	
51.30	55.24		MFEP	5A	FO				12	14	FZ/4/65	FO/0/20							
		Moderate grey, (well-developed) foliated, intermediate-mafic laminated (?) epiclastic or lapilli tuff. volcanic rock. O/l white clasts (avg 2 × ½ mm) strongly flattened along foliation planes making it difficult to say whether this is an epiclastic or tuffaceous rock. V fine (1mm) v dolomite stringers every 10cm along planar fractures noted. Bottom contact is 6 8cm wide clay gouge sharp fault contact. - stronger dolo-alteration towards FW of section.																	
55.24	57.90		MFFL	2A	FO				12	Ø	FO/0/65								
		V. dark grey with reddish hue. mafic volcanic flow (?). Weak to moderate foliation. Relatively unaltered. Weak hematite/iron oxide stain. <5% milky white dolomite stringers; 1 per 30cm avg. 2mm wide. Core breaks along planar fractures.																	
57.90	60.30		MFCA	6A	Fo				12	24	Fo/0/65		PY/PT/2 PY/VN/2	57.90	59.00	16546	0.91	tr	
		Moderate to lighish grey, weakly bleached mafic volcanic flow grading to fine grained, massive mafic ash tuff UC at start of bleaching, flow foliation extends to 59.00. Pyrite locally up to 5% in lower portion, occurring both as very fine grained patches, and coarser grained veinlets. Weakly brecciated at lower contact, rare hematitic stained fractures. Milky white dolomite stringers fr. 57.90 to 58.50.												59.00	60.30	16547	1.29	0.27	
60.30	61.00		PYTF	3A	BX	GO			24	24	LC/0/75		PY/EU/2 PY/VN/4	60.30	61.00	16548	0.65	6.99	
		Moderately to strongly silicified (rehealed) breccia with gouge filled fractures. Gouge contains up to 2% coarse euhedral pyrite crystals (some up to 1mm). ~~Rest~~ Rehealed breccia has patchy pyrite, usually occuring in veinlets, locally up to 5%. Weak Limonitic staining along ~~fracture~~ gouge zone at 61.90. Carbonatized blebs (dolo nodules? and clasts) at																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
61.00	85.40		DOSB	3A	BX	CR	VG		26	26			PY/11 DS
		Strongly crackled to brecciated, darkish grey, fine grained dolostone. Containing frags of chert up to 10 cm, but irregular. Chert is dark grey to black. Vugginess stronger in Chert clasts, but consistent throughout interval. Very rare pyrite visible, near upper contact. Poor recovery near bottom of interval. No dominant orientation. foliation or bedding evident. Moderate to strong silicification, with some quartz rich breccia zones (Si > 20%)											
		Broken zones 65.60 - 66.30 ; 77.11-84.73 - Most of these interval are 'washed' rubble.											
85.40	86.02		BSDY	IN	MS				0	0	UC/0/30	LC/0/65	
		Sharp contacts, chilled margins, aphanitic fringe, undeformed, unaltered											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
61.00	61.90	16549	0.84	1.51	
61.90	63.00	16550	0.90	1.65	
63.00	64.30	16551	1.12	2.67	
64.30	65.60	16552	1.10	0.55	
65.60	66.90	16553	1.24	0.55	
66.90	68.20	16554	0.95	0.75	
68.20	69.50	16555	1.41	0.75	
69.50	70.80	16556	1.15	0.55	
70.80	72.10	16557	1.11	0.27	
72.10	73.40	16558	1.16	0.75	
73.40	74.70	16559	1.22	0.82	
74.70	76.00	16560	1.18	0.48	
76.00	77.30	16561	0.92	0.75	
77.30	78.60	16562	0.98	0.62	
78.60	80.00	16563	1.05	0.82	
80.00	81.69	16564	1.14	0.69	
81.69	83.21	16565	0.89	0.62	
83.21	84.73	16566	0.75	0.14	
84.73	85.40	16567	0.43	0.21	
85.40	86.02	16568	0.62	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G94UG116

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
86.02	86.17		DOSB	3A	CR				26	26	LC/0/50°			86.02	86.17	16569	0.15		
		Same as interval above BSDY. Sharp lower contact with altered volcanics at ≈ 50° TCA																	
		Fuchsitic staining on lower contact																	
86.17	87.28		PYTF	5A	BX	FO			26	24	FO/0/60		PY/PT/5	86.17	87.28	16570	1.04		
		Breccia with variety of different coloured ash tuffs, reheated. Colours range from light pink to light green, but generally lighish grey. Faint foliation at about 60° TCA. Pyrite occurs in patches up to 1 cm wide locally, but generally smaller blebs along foliation. Lower portion shows weaker pyritization, and approaches a crystal tuff.																	
87.28	88.38		DOSB	3A	BX	VN			28	24			PY/OS/1	87.28	88.38	16571	1.02		
		Heterolithic breccia, primary component DOLO clasts, (55%), tuff clasts (20%), calcite veining (20%), matrix. Large calcite vein (milky white) from 88.00 to 88.20. Tuffs dominate at both ends of interval, matrix appears volcanic in origin. Weak to moderate silicification, stronger at core of interval.																	
88.38	89.85		PGTF	GA	GO				29	26	FO/0/60		PY/VI/3	88.38	89.31	16572	0.83		
		Clay gouge zone, with thin ~~bands~~ up to 2 cm (layers) of more competent greenstones. Pyrite veins and patches along foliation, some euhedral pyrite in lesser clay sections. Rare carbonate clasts.												89.31	89.85	16573	0.50		
89.85	90.43		DOSB	3A	BX	CR			24	26			PY/OS/1	89.85	90.43	16574	~~0.50~~ 0.42		
		Similar to above zones of DOSB, but more cracked than brecciated. Very little rotation of frags. Some blebs of quartz, moderately silicified. Rare diss. pyrite																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH C94UG116

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
90.43	91.65		PGTF	3A	GO				28	24	Fol/0/60		PY/wil2	90.43	91.65	16575	1.25		
		Pyritic clay gouge zone, approx 20% cracked OOSB clasts. Pyrite strongest in marginal zone around gouge zones, with rare euhedral crystals in gouge. OOSB clasts barren of pyrite. Hematitic (iron oxide?) staining towards bottom of interval, interlayered with blue clay zones. Washed, but competent gouge at bottom.																	
91.65	93.89		MFCA	GR	FO				14	12	Fol/0/45		PY/OS/1	91.65	92.35	16576	0.76		
		Protolith ash tuff, foliated and carbonatized to deep red tint with greener zones. Rare diss pyrite, some fuchsitic zones. Relatively competent. Several sericite? veins, all < 1 cm wide. Grains range from aphanitic to 2mm, most are flattened along foliation												92.35	93.89	16577	1.17		
93.89	95.20		LOST																
95.20	98.15		MFFL	2A	MS	FO			11	26	Fol/1/20	Fol/1/70		95.20	96.60	16578	1.33		
		Dark grey with rare touch of green, flow volcanics. Flattened phenos of pyroxene? and plag along foliation, some up to 3mm long but < 1 mm wide. Several sections show tight flow structures (picture ←), but generally follows 70° TCA at top of interval and 20° TCA at bottom. Rare sericite? veins < 5mm wide. No pyrite visible												96.60	98.15	16579	1.40		
98.15	102.60		MFCA	GA	MS	FO	FR	UN	18	12			HE/CO/1	98.15	99.10	16580	0.88		
		Persistent greenish tint from 98.15 to 100.00, dark grey from 100.00 to 102.60. Reddish (hematite?) fractures throughout (pervasive). Several tan intervals, all < 10 cm thick. Protolith an ash tuff, with rare visible flattened crystals in an aphanitic groundmass. Tan intervals show dark pyroxene phenocrysts. Clay content increases towards lower contact, with gradual contact change into GOUG												99.10	100.10	16581	1.02		
														100.10	101.50	16582	1.26		
														101.50	102.60	16583	0.92		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G94 UG116

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
102.60	103.90		GOUG	1A	GO				29					102.60	103.90	16584	1.37		
		Clay gouge, volcanic protolith with increasing carbonate clast (DOLO) towards bottom, dark grey with blue tint.																	
103.90	106.30		DOLO	9A	CR	MS			16	26				103.90	105.10	16585	0.97		
		Light grey to tan dolostone, with rare light grey chert nodules. Rare limonitic fracture. Poor recovery at lower contact.												105.10	106.30	16586	0.93		
106.30	106.80		LOST																
106.80	108.25		MFCA	8A	MS				11	24	LC/0150		PYIAT/2	106.80	108.25	16587	1.50		
		Bleached ash tuff, patchy pyrite locally up to 3%, Some sericite and clay alteration along fractures. Increasing hematitic fractures down hole. Pyrite related to sericitic, clay alt.																	
108.25	116.43		MFCA	RA	FO	VN			12	18			HE/PR/S	108.25	109.50	16588	1.21		
		Strong hematitic alteration has tinted entire interval red, with rare dark grey unaltered stretches. Strong silicification - dolomitization veining throughout, some fractures show slickensides. Protolith ash tuff, rare dark minerals 2 1mm (pyroxene's?), else generally aphanitic. No visible pyrite.												109.50	111.00	16589	1.50		
														111.00	112.50	16590	1.24		
														112.50	114.00	16591	1.50		
														114.00	115.50	16592	1.55		

GOLDEN BEAR OPERATING COMPANY

DATE: December 12/94

MINE ASSAY REPORT (Drill SAMPLES) Underground

ASSAYER: A. Hep

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	As %
16525	D-H # 116	TR				
26		TR				
27		TR				
28		0.02				
29		0.02				
30		TR				
31		TR				
32		0.21				
33		0.02				
34		TR				
16600		TR				
16535		0.41				
36		0.55				
37		0.14				
38		TR				
39		TR				
40		TR				
41		TR				
42		0.02				
43		TR				
44		TR				
45		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: Dec 15, 1994

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16546	~~DH 116~~	TR				
7		.27				
8		6.99				
9		1.51	2.00 g/t / 4.0 m			
16550		1.65				
1		2.67				
2		.55				
3		.55				
4		.75				
5		.75				
6		.55				
7		.27				
8		.75				
9		.82				
16560		.48				
1		.75				
2		.62				
3		.82				
4		.69				
5		.62				
6		.14				
7		.21				
16568		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: DEC. 16, 1994

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t		S %	S= %
16569		.41				
570		.27				
1		.14				
2		.07				
3		.14				
4		TR				
5		.07				
6		TR				
7		.07				
8		.07				
9		.07				
580		.07				
1		07				
2		.07				
3		TR				
4		.07				
5		.07				
6		.07				
7		TR				
8		.07				
9		.14				
590		.07				
1		.07				
2		.14				
16593		.14				

PLX REC #395

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G94UG117 PROJECT AREA: GRIZZLY SECTION: 23950N

DRILL HOLE LOCATION DATA

EASTING: 25058.260
NORTHING: 23948.845
ELEVATION: 957.096
HOLE LENGTH (M): 203.61

DRILL DIARY

STARTING DATE: JAN 4, 1995 (DD/MM/YYYY)
COMPLETION DATE: JAN 13, 1995 (DD/MM/YYYY)
LOGGED BY: APH RIG: INTERNATIONAL
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: GZ EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	269°, [illegible]	-52°, [illegible]	SURVEY
1	15.23	274°	-53	SPERRY
2	76.20	276°	-54	SPERRY
3	152.39	278°	-54	SPERRY
4	198.12	279°	-53.5	SPERRY.
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0	1.22	CASE					
1.22	52.50	MFCA					
52.50	55.25	AEGL					
55.25	71.97	MFCA					
71.97	79.17	CHRT					
79.97	118.51	MFCA AEGL	INTERBEDDED AEGL IN MFCA				
118.51	118.80	VNDZ	MFCA / DOSB CONTACT				
118.80	135.33	DOSB	CARBONATE LENSE BEGINS				
133.65	135.33	BSDY	DYKE				
135.33	168.55	DOSB	WATER @ 153.31 -	400gal/min	@ 200 PSI		
168.55	171.60	GOUG	FWF - AU ZONE				
171.60	174.65	DOSB	BADLY BROKEN - POOR RECOVERY				
174.65	176.17	GOUG	FAULT ZONE				
176.17	182.88	LOST	REDUCE TO BQ				
182.88	203.61	MFCA	FOOTWALL VOLCANICS.				

COMMENTS:
HIGH WATER & TROUBLE @ ZONE - POOR & LOST RECOVERY - WILL HAVE TO BE REDRILLED AT LATER DATE.

CHECK LIST: ASSAY REPORT ✓ CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG1H7

Page 1 of 4

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0	1.22		CASE																
		- casing																	
1.22	3.05		MFCA	7T	BD	SH	GO	VN	16	26	BD/0/60		PY/DS/2						
		- light tan, strongly altered volcanic tuffs. Lightly sheared w/ trace gouge. Minor irregular qtz veining. 4% pyrite as stringy disseminations and patches. Bddg locally weak @ 60° TCA.												1.22	2.05	16023	0.60	TR	
														2.05	3.05	16024	0.90	0.14	
3.05	4.88		MFCA	7G	BD	GO			14	22	BD/0/30		PY/DS/.5	3.05	3.96	16025	0.82	TR	
		- lightest green, strongly fuchsitic, altered thin bedded tuffs. Bddg @ 30° TCA. Minor gouge on fract. Trace to 1% py locally.												3.96	4.88	16026	0.93	TR	
4.88	10.00		MFCA	5A	BD	VN	GO		18	26	FR/0/70	BD/0/40	PY/DS/2	4.88	5.88	16027	0.88	TR	
		- medium grey, strongly altered coarse tuff (possible flow or xtal tuff) w/ grains to 3.0mm. Weak bddg @ 40° TCA. Contains erratic qtz veins 0.2 - 20cm w/ strongly disseminated PY (5%) section averages 2-3% PY. Minor gouge on fracts. Fracts @ 70° TCA. Core mod to strongly broken												5.88	6.88	16028	0.80	TR	
														6.88	7.88	16029	0.86	0.07	
														7.88	8.88	16030	0.87	TR	
														8.88	10.00	16031	1.02	TR	
10.00	12.75		MFCA	AG	BD	VN			0	22	BD/1/45		PY/DS/0.5	10.00	11.40	16032	1.40	TR	
		- greyish green, coarse grained tuff, vague bddg @ 45° TCA (possible xtal tuff?). Carbonate veining (anhedrite?), 1-2mm often // bddg. < 1% disseminated py. 5cm vuggy carb veins // bddg @ 11.45m.												11.40	12.75	16033	1.38	TR	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
12.75	13.33		VNQZ	AW	MS	BN			O	O	vc/0/40	LC/0/25	PY/DS/2	12.75	13.33	16034	0.49	TR	
		- quartz vein, white in color in bands @ selvages. Bands contain py as dissem and clots to 1.0cm. Overall py content = 2-3%. Fuchsite prominent along fractures.																	
13.33	14.14		MFCA	BA	MS	GO			19	22	FR/0/70	LC/0/85	PY/DS/0.1	13.33	14.14	16035	0.57	TR	
		- light grey massive, moderately altered v.fg tuff. Moderately to strongly broken in trace to 0.5% disseminated fg py. Boxy over narrow sections (10cm). Lower contact is sheer plane along @ 85° TCA.																	
14.14	20.73		MFCA	RG	MS	FO	VN	GO	12	12	FR/0/65	FO/1/65	PY/DS/0.1 // HE/VN/0.5						
		- light brick reddish green, lightly to moderately altered cg tuff (xtal tuff? flow ??). Weak foliation @ 65° TCA, prominent fracts @ 65° TCA. Minor diss py throughout, hem as veins 1-3mm wide in some fracts. Locally very minor gouge. Weak fuchsite throughout.																	
20.73	27.20		MFCA	TA	BD	SH	GO	BX	24	24	FR/0/65		PY/DS/1	20.73	21.75	16036	1.01	0.14	
		- tannish grey, thin bedded, mod to strongly altered tuffs locally sheared w 2-9% gouge over 20cm sections, most fract/shear planes are gouge. 20cm breccia in pyritic matrix @ 23.97m. Fracts common @ 65° TCA. Above 23.97 bdds @ 65° TCA, below @ 0-45° TCA. Pyrite diss throughout 1-1%, from 23.97-24.65m 2-3%.												21.75	22.75	16037	1.00	0.07	
														22.75	23.97	16038	1.21	TR	
														23.97	24.65	16039	0.70	TR	
														24.65	25.95	16040	1.22	TR	
														25.95	27.20	16041	1.20	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
27.20	52.50		MFCA	5T	MS	BD	VN		O	14	BD/0/60	LC/0/50	PY/DS/PP						
		medium tan, lightly to moderately altered, massive, thin bedded tuffs. Bddg @ 60° TCA, fronts common along bddg. Lightly to moderately qtz-carb veined, 1-10 mm wide, various ∡ TCA but commonly ∥ bddg, 1 every 10 – 30 cm. Very weak disem py (trace).																	
		- 35.00 - 36.5 m - tuffs green, very lightly alt																	
		- 36.5 - 37.5 - strong ben along fronts + veins																	
		- 39.00 - 39.90 - core strongly broken and gouvy.																	
		- 40.54 - 40.94 - altered feldspar porph dyke?																	
		- 47.03 - lower 3.0 cm qtz vein with ~1% arsnpy																	
		- lower contact sharp @ 50° TCA																	
		* - section 50.68 - 51.02 - contains ∴ 3% py on average, including ∴ 7.0 cm of PYTE ∵ ∴ 20% py.												50.68	51.02	16042	0.30	0.07	
52.50	55.25		ARG	2A	BD				O	O	BD/0/30	BD/0/60	PY/DS/0.5						
		- dark grey thin bedded argillite ± minor MFCA interbeds. Middle of section is contorted. Bedding above ~ 60° TCA, below @ 30-40° TCA. Trace to 0.5% disem wisp py throughout.																	
55.25	56.50		MFCA	5T	BD	VN			O	12	BD/0/40		PY/DS/PP						
		medium tan, moderately altered wisp tuffs. Bddg @ 40° TCA. Trace disp py. Acsl argillite bed to 2 mm. Minor carb veins 1-2 mm @ various ∡ TCA.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
56.50	58.51		MFCA	7G	BN				0	12	BN/1/60	UC/0/30							
		light to darkish green coarse grained tuff. Alt intensity increases up section to overlying fg tuffs. Near base almost no alt. Fracts @ 50° TCA, banding @ 60° TCA. Upper contact sharp @ 30° TCA.																	
58.51	61.36		MFCA	6T	BD				14	22	BD/0/40	FR/0/45	PY/DS/0.5						
		lightish tan, thin bedded moderately alt tuff. Bddg @ 40° TCA, fracts @ 45° TCA. Carries 0.5-1.0% dissem py. Fract surfaces strongly sericitic. Core mod broken from 59.70 for 60 cm. At 59.70m hole made 5 gal/min H_2O.																	
61.36	66.75		MFCA	6G	MS	VN	FO		0	14	FR/0/70	FR/0/50	PY/DS/0.1 // HE/VN/0.1						
		- lightish green, massive lightly altered volcanic. Possibly a flow w̄ light foliation @ 60° TCA. Lightly carbonate veins 1-3mm, one every 5-20cm. Fracts @ 50+70° TCA. Trace diss py, lam as fracture coatings + microveins.																	
66.75	67.87		MFCA	5T	BD				12	22	BD/1/40		PY/DS/0.5						
		medium tan, bedded, mod alt volcanic tuffs. Bddg @ 40° TCA. Contains dissem py 0.5-1.0% and ocsl, barren, boudined qtz vein to 0.5 cm wide.																	
67.87	71.97		MFCA	5A	BD	SH	GO		22	22	BD/0/50		PY/DS/1						
MFCA/CHT.		- medium grey, thin bedded, mod alt. vfg volcanic tuff. Bddg @ 50° TCA. Contains 0.5-1.0% dissem py *~ 5-10% of section is grey milky, bedded chert. Minor shearing on bedding planes w̄ minor gouge. Trace argillite beds.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
71.97	74.17		CHT	6A	BD				0	0	BD/1/50		PY/DS/0.1						
		-lightish grey, bedded chert w̄ minor interbedded vfg tuffaceous horizons. Beds to 0.5mm wide. Some horizon are tuffaceous chert. Bddg @ 50°TCA. Fracts // bddg.																	
74.17	75.49		MFCA	5T	BD				0	24	BD/0/40	LC/0/60	PY/DS/0.5						
		-medium tan, thin bedded altered tuff. Bddg @ 40° TCA. Contains 1.0% diss py. Fracts // bddg/fol. Argillite beds present in upper 60 cm of unit and form 50% of that section.																	
75.49	79.41		ARG	1A	BD	VN	PH		0	12	BD/0/60		PY/DS/0.1						
		very dark grey, bedded argillite w̄ <5% interbedded tan, volcanic tuff beds. Bddg @ 60°TCA w̄ phyllitic partings. Contains trace disseminated py. Sparse qtz-carb veining @ various ∡ TCA. Contains ocsl. < 1.0cm thick cherty lenses.																	
79.41	83.27		MFCA	GA	BD	GO			0	12	BD/0/60		PY/DS/PP						
		lightly altered, thin bedded volcanic tuffs. Bddg @ 60°TCA, partings along bddg. Contains trace vfg py. Minor shearing w̄ trace gouge @ 80.30 - 80.40.																	
83.27	84.73		ARG	2A	BD	PH	VN		0	0	BD/0/55		PY/DS/0.1						
		-dark grey to black thinly bedded argillite. Bddg @ 55°TCA w̄ phyllitic partings. Ocsl epiclastic or vfg tuffaceous bed < 1.0cm. Very weakly qtz-carb veined, 1.0mm one every 10-20cm. Contains trace vfg py.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
84.73	86.37		MFCA	8G	BD				0	22	BD/1/65		PY/DS/0.1						
		weakly altered light green tuffs (epiclastic) w̄ minor argillite interbeds and chert interbeds (white, milky chert). Bddg @ 65°TCA. Carries <1% fg dissem py.																	
86.37	91.83		ARG	1A	BD	PH	VN		12	22	BD/0/60		PY/DS/0.5						
		Dark grey to black bedded argillite w̄ minor (<10%) tan colored MFCA interbeds to 15cm thick. Bddg @ 60° TCA w̄ moderately phyllitic partings. Weakly to moderately qtz-carb veined, 1-3mm @ various ∡TCA. Contains 0.25-1.0% diss py.																	
91.83	94.80		MFCA	5T	BD	GO			14	22	BD/0/40	BD/0/70	PY/DS/0.1						
		medium tan, moderately alt tuffs w̄ minor interbedded argillite. Bddg @ 70°TCA @ top of section, 40°TCA @ base w̄ contorted and/or folded section in middle. Fracts w̄ minor gouge @ 60°TCA. Contains trace fg pyrite																	
94.80	98.45		ARG	1A	BD	VN	PH		0	12	BD/0/60		PY/DS/0.1						
		dark grey to black, bedded argillite w̄ very minor MFCA interbeds (<5.0%). Bddg @ 60° TCA w̄ weak phyllitic partings. Minor qtz-carb veins, 1-2mm @ various ∡TCA, one every 10-30cm. Contains trace dissem py.																	
98.45	102.04		ARG	1A	BD	SH	GO	BX	22	22	FR/0/60		PY/DS/1	98.45	99.65	16043	1.18	0.96	
		dark grey argillite w̄ MFCA interbeds. Arg is only narrowly in majority. Interbeds 10-30cm wide. Bedding contorted w̄ shearing + minor gouge + brecciation present. Fracts common @ 60°TCA, shears @ 45°TCA. Pyrite as mg dissem + blebs ≈ 1-1.5% on average, locally 5.0%.												99.65	100.85	16044	1.24	1.92	
														100.85	102.04	16045	1.15	2.13	

1.1w.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG1H7

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
102.04	103.52		MFCA	AT	MS	VN			0	26	FR/0/55	UC/0/70	PY/PT/5	102.04	102.77	16046	0.72	0.41	
		-medium, grayish tan colored strongly altered and pyritized												102.77	103.52	16047	0.79	0.48	
		volcanic. Generally massive in texture, w patches + wisps																	
		of fg-mg pyrite to 5%. Upper + lower contacts sharp @ 70 + 30° TCA																	
		respectively. Fracts @ 55° TCA. Light qtz-carb veining @ various ∠TCA.																	
103.52	106.77		MFCA	YT	MS	VN			0	24	FR/0/70	FR/0/40	PY/DS/1	103.52	104.62	16048	1.06	0.21	
		-yellowish tan colored, moderately to strongly alt volcanics-												104.62	105.72	16049	1.14	1.17	
		poss a flow (granular tex). Massive w fracts @ 70 + 40° TCA. Moderately												105.72	106.77	16050	1.03	0.28	
		qtz-carb veined, 1 every 5-15 cm @ 70° TCA. Contains mg dissem																	
		pyrite ≤1% overall.																	
106.77	109.72		MFCA	ST	BD	SH	GO		26	22	SH/3/60	FR/0/60	PY/DS/0.1	106.77	107.77	16051	0.60	0.14	
		medium tan colored moderately alt volcanic tuffs. Bedded												107.77	108.77	16052	1.00	TR	
		@ 60° TCA w minor interbedded arg. Locally sheared w gouge												108.77	109.72	16053	0.87	TR	
		over 10 cm widths @ 60° TCA (IE ∥ bddg + fracts.). Contains <0.5%																	
		py overall, locally 1-2% over 10 cm. Fault w 40 cm core loss 107.19-107.59																	
109.72	112.17		ARG	1A	BD	SH	GO		28	22	SH/3/60	BD/0/50	PY/DS/1	109.72	110.95	16054	1.08	0.07	
		Dark grey to black bedded argillites w minor IB. MFCA (<5%).												110.95	112.17	16055	1.20	TR	
		Bddg @ 50° TCA. Moderately sheared w gouge @ 60° TCA in 3 or 4 places																	
		over 15-30 cm widths. Contains 1% dissem py. Ocls augen																	
		of chert/qtz (milky white).																	
112.17	115.51		MFCA	AT	BD	SH	GO		14	24	BD/0/60	FR/0/50	PY/DS/0.5	112.17	113.31	16056	0.84	0.07	
		grayish tan, moderately alt. bedded volcanics. Bddg @ 60° TCA, fracts												113.31	114.41	16057	1.10	TR	
		@ 50° TCA. Minor shearing w gouge locally over 5-10 cm. Broken												114.41	115.51	16058	0.91	TR	
		core from 113.00-113.69. Pyrite as dissem <0.5%.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
115.51	117.60		MFCA	GA	MS	SH	GO		14	24	FR/0/70	FR/0/50	PY/DS/0.5	115.51	116.55	16059	1.03	0.14	
		-lightish grey, moderately altered volcanic, possibly flow or cg tuff												116.55	117.60	16060	1.01	TR	
		(no bddg apparent, granular texture). Minor shearing w/ trace gouge.																	
		Fracts @ 70+50° TCA. Trace dissem py.																	
117.60	118.51		MFCA	GA	MS	BD	GO		14	24	BD/0/30		PY/DS/0.1	117.60	118.51	16061	0.85	TR	
		light greenish gray, moderately altered fg volcanic tuff w/																	
		minor interbedded grey chert. Tuff is massive, bddg in chert @30°																	
		TCA. Core moderately broken w/ minor gouge. Carries trace dissem																	
		py.																	
118.51	118.80		VNQZ	W	CR	GO			26	—			FU/CO/0.1	118.51	118.80	16062	0.15	TR	
		-white, strongly crackled and broken vein quartz. Gougy																	
		surfaces (white gouge) w/ minor fuchsite staining.																	
118.80	128.93		DOSB	2A	BX	VG	BD	GO	16	24	FR/0/45		PY/DS/0.5	118.80	119.80	16063	0.50	0.28	
		-dark grey moderately silicified, brecciated dolomite. Vuggy w/												119.80	120.80	16064	0.60	TR	
		3-5% open, irregular spaces. Some fragments are bedded. Very rare												120.80	121.80	16065	0.70	TR	
		gougy fracture. Fractures are highly irregular in general, 45° TCA is												121.80	122.80	16066	0.51	0.07	
		most abundant. Contains trace to 0.5% diss fg pyrite throughout.												122.80	123.80	16067	0.67	0.07	
		Core is moderately to strongly broken throughout. Minor, pebbled												123.80	124.80	16068	0.80	TR	
		qtz at 126.90, rest of broken core is extremely angular.												124.80	125.80	16069	0.90	0.07	
														125.80	126.80	16070	0.77	0.14	
														126.80	127.80	16071	0.83	TR	
														127.80	128.93	16072	1.20	0.34	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
128.93	133.65		D05B	TO	BX	GO	SH		28	26	SH/5/5		PY/DS/PP	128.93	129.69	16073	0.85	0.21	
		silicified breccia/tf grey dolomite to strong, orange colored limonite matrix. Portions very strongly gouge + clayey: 130.40m - 131.06												129.69	130.40	16074	0.48	0.28	
		and 131.50 - 132.55m. This borders a small zone of very hematitic D03B												130.40	131.06	16075	0.40	0.28	
		to minor basalt. Locally contains trace vfg pyrite. Base unit at												131.06	131.50	16076	0.33	0.48	
														131.50	132.55	16077	0.48	0.34	
		contact		Lt G	19A									132.55	133.65	16078	0.68	0.14	
133.65	135.33		B5D4	N	MS				—	—	LC/0/55		—	133.65	135.33	16079	0.43	TR	
		- massive, black, fine grained basalt dyke. At least a portion was modified to chilled contact w red hematitic stained dusk. can be noted. Heavy core loss over portion of dyke																	
135.33	147.57		D03B	GA	BX	GO	SH		26	24	FR/0/70		PY/DS/0.1	135.33	136.55	16080	0.85	0.14	
		medium to lightish grey, moderately silicified and brecciated												136.55	138.07	16081	0.25	TR	
		dolomite. Fracts common @ 70° TCA. Carries trace extremely												138.07	139.60	16082	0.96	TR	
		fine pyrite. Entire unit is moderately to strongly broken. Trace												139.60	141.12	16083	0.35	TR	
		gouge common on fractures, significant gouge is extremely												141.12	142.65	16084	0.39	0.14	
		broken core from: 136.00 - 136.55												142.65	144.17	16085	0.55	TR	
		138.60 - 139.45												144.17	145.69	16086	0.73	TR	
		145.69 - 147.30												145.69	147.57	16087	0.82	TR	
		- heavy core loss over most drill runs i.e. samples as between																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
147.57	147.97		GRD1	RW	MS				—	—			PY/DS/1	147.57	147.97	16088	0.15	TR	
		-pinkish white, coarse grained granodiorite dyke? Feldspar phenos to 3.0mm milky white w/ lesser qtz + hspa. Contains ≤1.0% dissem py. Core strongly broken and pebbled.																	
147.97	152.45		DOSB	5A	BX	VG			18	22	FR/0/70		PY/DS/0.5	147.97	148.74	16089	0.30	0.07	
		-medium grey, weakly to moderately brecciated, silicified dolomite												148.74	150.27	16090	0.58	TR	
		Core is strongly fractured and broken, fracts common @70°TCA.												150.27	151.18	16091	0.69	0.07	
		Contains 0.25-1.0% very fine grained disseminated pyrite. More competent												151.18	151.79	16092	0.44	TR	
		pieces show ≤3-5% open space as irregular vugs												151.79	152.45	16093	0.35	TR	
152.45	153.16		DOSB	8A	BX				18	22	FR/0/70		PY/DS/0.5	152.45	153.16	16094	0.49	0.A	
		-light grey, weakly silicified and brecciated dolomite. Fracts @70°TCA. Contains ≤0.5% vfg dissem py. Similar to 147.97-152.45 except for lighter color and for less open space as vugs (<0.5%)																	
153.16	153.31		DOSB	3A	BX				18	24	-	-	-	153.16	153.31	16095	0.15	.07	
		DARK GREY SILICIFIED DOSB BX REHEALED SILICIFIED																	
153.31	155.45		LOST																
		200 psi & 400 gal/min	H_2O!																

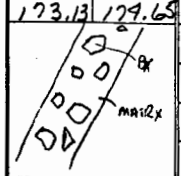
NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95-DH-117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
155.95	156.60		DOSB	5A	BX	VG			18	22			LI//PS/20	155.95	156.60	16096	0.29	.14	
		AS ABOVE - POOR CORE RECOVERY - RUBBLE ABOUT 1-2 CM DIAM WASHED.																	
		MINOR #1 CHUNKS (30 cm) @ 156.36																	
156.60	166.73		DOSB	5A	BX	CR	VG		18	22				156.60	157.69	16097	0.14	.31	
		156.60 - 157.69 - POOR REC. SAND & DRILL CUTTINGS												157.69	159.21	16098	0.25	.31	
		157.69 - 159.21 - V. POOR REC - RUBBLE & CHUNKS												159.21	159.41	16099	0.15	.31	
		159.21 - 159.41 - V. POOR - REC. VERY LIMONITE FLOODING												159.41	160.93	16100	0.72	.21	
		159.41 - 160.93 - V. POOR REC SAND, CHIPS & RUBBLE												160.93	162.96	12901	0.48	.65	
														162.96	163.37	12902	0.69	.17	
		160.93 - 162.96. MOD REC. - RUBBLE & 3 CM PIECES. SILICIFIED. CR BX												163.37	164.90	12903	0.58	.62	
		162.96 - 163.37 - 80% REC SILIC & CR DOSB MED GREY.												164.90	165.71	12909	0.70	.62	
		163.37 - 164.90 ± 70% REC AS ABOVE																	
		164.90 - 165.71 ± 65% REC GREY FG MATRIX = 80% W/ ROUNDED CHART BX .5-1 CM RUNNABLE.																	
														165.71	166.73	12905	1.00	.41	
		165.71-166.73 - GREY CRACKLE BX 95% CRACKLE DOLOMITE - MILDLY SILICIFIED																	
166.73	168.55		DOSB	3A	CR	VG			18	22				166.73	168.55	12906	.30	.65	
		NOTE POOR RECOVERY - 38 CM CHUNKS 3-9 CM RUBBLE - Dark grey dolo - silic - crackle																	
		BX - Rare speck of py to .01%																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95DH117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
168.55	171.60	FWF	GOUG	1A	GO	BX	VG		18	26	–	–	PY/DS/10	168.55	170.08	12907	.62	6.24	
GOUGE + 10% PY		168.55-169.5? - CHUNKS 50% GOUG 50% PY as ∅F.G. Disseminations and												170.08	171.60	12908	.25	17.73	
		stringers Gouge is clay size but V. Black chunks are silicified and veggy.																	
		.1-2mm = 10%																	
		169.5-171.60 - note V.P Recovery - Jet black gouge with 10% chunks - 2-3cm																	
		gouge = 80% of section																	
171.60	173.13		DOSB	6A	CR	VG			16	26			L1/CR/10	171.60	173.13	12909	.20	1.61	
		Note Recovery V. Poor. Rubble 1cm - 3cm 1/2 of core has limonite																	
		flooding on Cr joints																	
173.13	174.65		DOSB	4A	BX	VG			18	26			PY/DS/1 PY/ST/2	173.13	174.65	12910	.89	.24	
		MATRIX Supported BX clasts - .1 - .8 cm - Totally silicified & reheated.																	
		PY as dis & strg - V.V. fine grained - dark grey sulfide in veggs to 3%																	
174.65	176.17		GOUG	2A	GO	BX	VG		19	28			PY/DS/2 PY/ST/2	174.65	175.27	12911	.60	.31	
GOUGE + P.Y.		DARK GREY - GOUG WITH 20% ~~clasts~~ chunks of 1-4cm Reheated silicified gouge												175.27	176.17	12912	.60	3.57	
		~~grey~~ clasts .1 - 1cm. Clay gouge matrix solid w/numerous (40%) DOSB chips																	
		Py is both euhedral and V.V F.G. to bright to dark grey sulfide - we hope!																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695DH117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
176.17	179.53		LOST										RUBBLE →	176.17	179.53	12913	.15	0.45	
		15 cm of chunks lost - some grey gouge (20 o/o)																	
179.53	182.88		LOST																
		REAM & REDUCE TO DQ.																	
182.88	186.03		MFCA	GT	GO	BX			18	22			PY/DS/1 PY/ST/1	182.88	183.79	12914	.80	0.10	
FAULT MELANGE		SEVERELY GOUGED & BRXX LATER MFCA - PY AS DISS & STRGR - MILDLY RE HEALED												183.79	185.32	12915	1.95	0.07	
		PY STRGR BOTH X CUTTING & ON FRACT PLANE TRACE FAN MICA. SERICITE PRES. ON												185.32	186.03	12916	.70	0.07	
		FRACTURE PLANES THAT ARE RANDOM. IN ORIENTATION.																	
186.03	186.40		DOSB	3A	BX	CR	GO						PY/ST/1 PY/DS/3	186.03	186.40	12917	.28	0.34	
FAULT MELANGE		POOR REC - BLACK GOUGE = 35% - REHEALED BX = 20% CR = 50%																	
186.40	186.84		GOUG	3A	GO	BX					LC/0/30		PY/DS/10%	186.40	186.84	12918	.99	0.27	
FAULT GOUGE		Clay = 85% BXX - .1 - .5 cm = 15%																	
		SOLID COAG BUT OBVIOUS FAULT GOUGE LT GREY V.F.G. SULF = 10%																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95DH117

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
186.89	188.60		MFCA	5Y	FR	SH			16	29	FR/0/50	FR/0/70	PY/25/2 PY/5T/1	186.89	188.37	12919	1.50	0.07	
SHEAR TO FOOT WALL FNT.			SERICITE ON SHEAR PLANES; GREY IN COLOUR & FIZZES LOCALLY - A GUESS ON MFCA BUT CONSISTANT FRACTURE & & SERICITE WEIGHTS TO MFCA. CARBONATE DOES RIP UP SECTIONS 1- 9 CM WIDE = 10% SULFIDE IN GREY FRACTURE PLANES 1-.3 CM WIDE.											188.37	188.60	12920	.30	0.03	
188.60	200.69		MFCA	6T	FR	SH	MS		14	19	FR/0/50	FR/6/30	PY/10S/.01	188.60	189.89	12921	1.29	0.21	
			FOOTWALL VOLC. - ALTERED TO LITE TAN/GRN GENERALLY MASSIVE & COMPETENT SOME ALTERATION TO LT RED SO COMMON IN THIS AREA. PROTOLITH IS ASH TUFF. MINOR 1- 1 cm QTZ STOCKWORK.											189.89	191.41	12922	1.54	0.07	
														191.41	192.94	12923	1.54	0.03	
														192.94	194.96	12924	1.54	0.07	
														194.96	195.99	12925	1.54	0.07	
														195.99	197.51	12926	1.54	0.07	
202.69	203.61		LOST																
			EOH = 203.61 m																

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 11/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12901	117	.65				
2		.17				
3		.62				
12904		.62				
16095		.07				
6		.14				
7		.31				
8		.31				
9		.31				
16100		.21				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 12 95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12905	117	.41				
6		.69				
7		6.24				1.2
8		17.73				2.1
9		1.61				.3
910		.24				
1		.31				
12912		3.57				1.9

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 14/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12913	117	.45				
4		.10				
5		.07				
6		.07				
7		.34				
8		.27				
9		.07				
920		.03				
1		.21				
2		.07				
3		.03				
4		.07				
5		.07				
12926		.07				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (Drill SAMPLES)
Underground

DATE: January 6/95

ASSAYER: A. Hepner

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16023	D.H. # 117	TR				
24		0.14				
25		TR				
26		TR				
27		TR				
28		TR				
29		0.67				
30		TR				
31		TR				
32		TR				
33		TR				
34		TR				
35		TR				
36		0.14				
37		0.02				
38		TR				
39		TR				
40		TR				
41		0.02				
42	↓	0.07				

GOLDEN BEAR OPERATING COMPANY

DATE: January 8/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Depp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16043	D.H. # 117	0.96				
44		1.92				0.20
45		2.13				0.20
46		0.41				
47		0.48				
48		0.21				
49		1.17				0.12
50		0.28				
51		0.14				
52		TR				
53		TR				
54		0.07				
55		TR				
56		0.07				

GOLDEN BEAR OPERATING COMPANY

DATE: January 9/95

MINE ASSAY REPORT (Drill SAMPLES) Underground

ASSAYER: A. Hogan

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16057	D.H. # 117	TR				
58		TR				
59		0.14				
60		TR				
61		TR				
62		TR				
63		0.28				
64		TR				
65		TR				
66		0.07				
67		0.07				
68		TR				
69		0.07				
70		0.14				
71		TR				
72		0.34				

GOLDEN BEAR OPERATING COMPANY

DATE: January 9/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Thepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16023	D.H. # 117	0.21				
24		0.28				
25		0.28				
26		0.48				
27		0.34				
28		0.14				
29		TR				
80		0.14				
81		TR				
82		TR				
83		TR				
84		0.14				
85		TR				
86		TR				
87		TR				
88		TR				
89		0.07				
90		TR				
91		0.07				
92		TR				
93		TR				
94	↓	0.14				

RECORD # 347

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G95DH118 PROJECT AREA: GRIZZLY SECTION: 23950

DRILL HOLE LOCATION DATA

EASTING: 25057.922 25058.613

NORTHING: 23948.902 23944.098

ELEVATION: 957.673 957.611

HOLE LENGTH (M): 195.99

DRILL DIARY

STARTING DATE: 15/01/1995 (DD/MM/YYYY)

COMPLETION DATE: 20/01/1995 (DD/MM/YYYY)

LOGGED BY: DLC RIG INTERNATIONAL ("CORN BINDER")

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: PH EDITED BY _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL		DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR		0.00	272.287 274.341	-27.918	SURVEY -27.918
1		47.24	275°	-31	SPERRY
2		106.68	279°	-34.5	SPERRY.
3		163.06	275°	-35.9	SPERRY
4	E.O.H	195.98	273.0°	-36.0	SPERRY.
5				-	

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95U6118

Page 1 of

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	5.16		MFCA	6T	FR	SH	MS		14	19	FR/0/60	FR/0/70	FU/DIS/5						
		VERY STRONGLY BLEACHED ASH TUFF																	
5.16	19.37		GRDI	6G	MS	FR			12		FR/0/60	FR/0/65	PY/DS/2 HE/DS/3-5	16.15	17.68	12927	1.46	.48	
		GRANODIORITE; TRACHYITE. PERVASIVE GREEN SERICITE ALTERATION. PY as .1-1mm EUHED XTALS & FG. BLEBS. HE IS PRIMARY GREY/SILVER COLOUR & F.G. AS .1-1.5mm BLEBS AS THIS IS VERY THICK; COMES AS A SUPPRISE: SOME SENSE OF FLOW @ 040°. A UNIFORM HOMOGENOUS DYKE?																	
19.37	20.16		MFCA	6T	BD				12	12	BD/0/40								
		VERY BLEACHED LT TAN/GREY THIN BEDDED ASH TUFF. (FINE GRAINED) PROBABLY A DIP UP in the GRDI DYKE																	
20.16	23.35		GRDI	6G	MS	FR	—	—	12	+	FR/070	FR/0/45	PY/DS/2 / HE DS-3						
		AS GRDI ABOVE																	
23.35	39.10		MFCA	6A	MS	BD	FR	GO	12	19	BD/0/60	BD/0/40	PY/DS/.1						
		LT GREY BLEACHED ASH TUFF. VF GR PY as dissem flecks to .1 consistant, homogenous minor slip planes 1-2 cm wide [illegible]																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG118

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
39.10	79.97		MFAS	5G	BD	BN	MS		0	0	BD/0/45	BD/1/30	PY/DS/.1						
		Massive light to dark green ash tuff in places mildly bleached to 1-2 m sections - medium to fine grained with uniform banding & bedding - appears to be a relatively unaltered un fractured & rotated unit - good RQD.																	
79.97	81.80		MFEP	2G	BD	-	-	-	0	0	BD/0/70	BD/0/60							
		Thin to .2 cm bedded dark grey epiclastics alt f.g. siltstone / mudstone parting on bedding planes. Rare speck euhedral PY																	
81.80	93.26		MFAS	7A	BD	BN			11	14	BD/0/90	BD/0/80	PY/DS/1	84.29	86.25	12928	0.71	.31	
		PROTOLITH: Thin bedded welded ash tuff. upper 1/2 occasional slump structures												86.25	87.78	12929	1.46	.10	
		with 1-10 cm Bands of welded lapilli: Lower 1/2 increased slump & deformation												87.78	89.30	12930	1.26	.07	
		flows & folding with wavy bedding. pyrite in lower section is variable as blebs												89.30	90.83	12931	1.33	.07	
		& dissem to 1-2%. Some minor shearing 1-20 m wide with axis @ 045° CA												90.83	92.35	12934	1.21	.17	
														92.35	93.26	12932	0.77	.10	
93.26	93.87		MFAS	5A	BX	GO			18	14				93.26	93.87	12933	0.17	.03	
		AS ABOVE BUT W/CLAY = 50% FRAGS = 50% - POOR RECOVERY - POSSIBLE GOUGE ZONE?																	
93.87	98.13		MFAS	7A	BD	BN			11	14	BD/0/50	BD/045	PY/DS/1						
		AS ABOVE → 81.80-93.26																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695DH118

Page 3 of _____

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
98.13	99.97		MFEP	3A	BD				0	0	BD/1/60	BD/1/70							
		Very well bleserved interbedded siltstone/mudstone/ash tuffs																	
		99.60 - 99.97 Bedded welded lapilli ash tuffs																	
99.97	100.60		MEAS	7A	BD	FR			10	0	BD/0/45	BD/0/45	FU/(PS)/1						
		Thin bedded ash tuff - siliceous overtones - potato chip sd fracturing on bedding planes																	
100.60	101.07		GOUG	7A	GO	BX			26	14				100.60	101.07	12935	0.33	.17	
FAULT ZONE.																			
101.07	101.90		MEAS	7A	BD	MB			0	0	—	—	—	101.07	101.90	12936	0.21	.10	
101.90	102.92		GOUG	5A	GO	BX	CR	'	29	29			PY/03/3	101.90	102.92	12937	0.43	.29	
FAULT ZONE		FAULT ZONE; 50% CLAY 50% BX W ROTATED FRAGS .1 - 2 cm³, DISS CPY ON GO & SLIP PLANES BOTH F.G. & EUHEDRAL.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95DH118

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
102.42	107.79		MFAS	6A	BD	MS	FR	—	14	0	BD/1/75	BD/1/60	PY/DS/1	102.42	103.40	12946	0.72	.41	
		THIN BEDDED GREY ASH TUFF LIGHTLY BLEACHED @ PY AS DISS & ALONG FRACTURE												103.40	104.54	12947	0.79	.10	
		PLANES & BRIGHT YELLOW / minor 1-10 cm beds of dark grey epiclastics = 5%												104.54	104.94	12948	0.26	.14	
														104.94	105.25	12949	0.22	.03	
														105.25	106.02	12950	0.73	.14	
														106.02	107.79	12951	1.35	.51	
107.79	109.11		GOUG	4A	GO	BX	FR	CR	28	26	UC/0/60	-	PY/DS/2 ~~AYOE~~	107.79	109.11	12938	1.18	.17	
VOLC FAULT CONTACT CARB		Gouge & BXX clasts 1-2cm³ rehealed Goug = 40% BXX = 60 / Zone is silicified																	
		in rehealed sections to @ 26 / 20 cm @ VNQZ "Chunk" @ 109.11																	
109.11	110.64		DOSB	6A	CR	MS			26	28			PY/DS/.1	109.11	110.64	12939	1.04	.14	
		Strongly silicified flat grey homogenous massive w/ crackle texture																	
110.64	111.65		BSDY	1N	MS				0	0			—						
		F.G. uniform BSDY - minor amy to 1%																	
111.65	115.00		DOSB	6A	CR	MS			26	28				111.65	113.69	12940	0.86	.10	
		AS DOSB ABOVE.												113.69	115.00	12941	0.46	1.03	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695DH118

Page 5 of _____

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
115.00	115.21		BSD4	1N	MS														
		Core rubble but BSD4																	
115.21	117.92		DOSB	6A	MS	CR	BX		18	26	—	—	—	115.21	117.92	12942	0.81	3.15	
		Intensely crackled - remainder from 115.21 - 115.40 due probably to wash																	
		blast of BSD4 dykes																	
117.92	118.26		BSD4	1N	MS														
		As BSD4 in both above but whole core																	
118.26	118.98		DOSB	6T	CR	BX	—	—	22	29	—	—	L1/PS/40	118.26	118.98	12943	0.14	1.13	
		Short interval of laminated BX -																	
118.98	120.8		BSD4	1N	MS														
		As BSD4 ABOVE																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
120.18	125.88		DOSB	6A	MS	CR	BX		18	28			PY/DS/1	120.18	121.31	12944	0.74	.34	
EOB 123.02		massive silicified DOSB with uniform crackle - reheated by silicification												121.31	122.83	12945	0.82	.31	
		122.83 - 125.88 - as above with limonite matrix to crackle - 10% py as very												122.83	124.36	12952	0.79	.31	
		fine grained disseminations & blebs to 1 mm												124.36	125.88	12953	0.83	.31	
125.88	131.98		DOSB	5A	MS	CR	BX	VG	18	28	—	—	PY/DS/1 PY/ST/1	125.88	127.91	12954	0.57	.07	
		125.83 - 127.91 - GREY DOSB WITH STRG PY - .1-1mm AND DISSEM PY = .1-1mm EUHED.												127.91	128.93	12955	0.19	.37	
		127.41 - 130.45 - V. POOR RECOVERY. - CHUNKS - 1-3 cm = 90% RUBBLE BMANCE												128.93	130.45	12956	0.15	.62	
		130.45 - 131.98 V. POOR RECOVERY - BRECCIATED & REHEALED - LIMONITE CR BX MATRIX												130.45	131.98	12957	0.36	.07	
131.98	134.15		DOSB	4A	CR	MS	BX	VG	18	28	—	—	PY DS / PY ST /	131.98	133.50	12958	1.07	.10	
		DARK GRAY DOSB CR BX with sulfides as black bands gouge .1-3 cm wide												133.50	134.15	12959	0.40	.91	
		= 2% of section. Grey bands .1-.5 silicified rock dark black - may contain																	
		super f.g. sulfides?																	
134.15	135.78		COUS	4T	GO	CR	BX		29	28				134.15	134.55	12960	0.27	.17	
SAND FAULT ZONE		Primarily a sand fault gouge with small rip up zones in fault												134.55	134.72	12961	0.21	.27	
		134.15 - 134.55 - hanging wall Reheated BXX zone - limonite to 60%												134.72	135.03	12962	0.23	.62	
		134.55 134.72 - Sand & BXX clasts 134.72 - 135.03 - sand wash												135.03	135.78	12963	0.46	.37	
		135.03 - 135.78 tan sand = 80% Bx clasts .1-2 cm² = 20%																	
135.78	141.12		DOSB	6A	CR	MS			16	28	—	—	PY/DS/2 PY/ST/.5	135.78	136.25	12964	0.29	1.20	
		GOOD solid rock strongly silicified - crackle reheated py as dissem & in veinlets												136.25	137.48	12965	0.82	.27	
		very subdued V.V. f.g. sulfides = 3%												137.48	138.48	12966	0.78	.07	
		138.98 - 141.12 - V. POOR RECOVERY BUT AS ABOVE												138.98	139.60	12967	0.12	1.95	
														139.60	141.12	12968	0.27	1.30	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695DH118

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
141.12	146.00		DOSB	6A	CR	MS	BX	—	18	28	—	—	PY/DS/1 PY/SS/1	141.12	142.65	12969	0.65	.21	
		Massive DOSB with crackle throughout; some BX zones with infill												142.65	144.17	12970	0.74	.27	
		matrix of light grey silicic dolomite .1-2 cm wide Py occurs												144.17	144.78	12971	0.31	.31	
		as disseminations in CR BX area. minor stringers of PY along fracture												144.78	146.00	12972	0.98	.07	
		planes & crackle matrix																	
146.00	150.17		DOSB	6A	BX	CR	VG	—	19	29	—	—	PY/ST/1 PY/PS/3	146.00	147.22	12973	0.93	.07	
HANGING WALL ALTERATION ZONE		Strongly bleached; this zone has been intensely crackled & brecciated and												147.22	148.74	12974	1.34	.03	
		then rehealed to a nice whole core. The sulfides are patchy and												148.74	150.17	12975	0.91	.69	
		present as pervasive flooding of the carbonate to dark gray zones of core																	
		1-10 cm long with fine grained sulfides in stringers looks like an VG alteration zone																	
150.17	164.70		DOXB	2A	BX	VG	—	—	29	29	—	—	PY/PS/1	150.17	151.79	12976	0.67	3.70	
MINERALIZED ZONE		Completely Brecciated & rehealed by sulfides & silica BXX clasts angular												151.79	153.31	12977	1.28	2.09	
		.1 to 2 cm of DOSB with matrix of very fine grained grey sulfides - in some												153.31	154.84	12978	0.55	1.54	
		1-3 cm zones sulfides are "pasty" → balance is U.F.G. pervasive matrix encapsulation												154.84	155.75	12979	0.23	.27	
		section alterabeates from lt black to dk grey in scattered fashion												155.75	156.36	12980	0.35	.58	
														156.36	157.89	12981	0.74	1.37	
														157.89	159.41	12982	0.55	1.75	
														159.41	160.93	12983	1.00	1.37	
														160.93	162.46	12984	1.39	6.03	
														162.46	163.07	12985	0.23	5.38	
														163.07	163.98	12986	0.17	7.37	
														163.98	164.70	12987	0.62	2.57	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95DH118

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
169.70	168.25	FWF	GOUG	2A	GO	BX	-	-	29	28			PY/DS/2-3	169.70	165.51	12988	0-37	8.19	
GOUG		DK GRNY TO BLACK GOUGE ARGILLIA - CLAY/MUD SIZE MATRIX = 40%; 60% BRX OF DOSB												165.51	167.03	12989	0.83	8.78	
		WITH CARBONATE BLOCKS ANG TO SUB ANG ROTATED; IN PARTS 1-10 cm SECTIONS WHOLE												167.03	167.99	12990	0.64	.17	
		CORE OF SILICIC REMINERALIZED BRX.												167.99	168.25	12991	0.55	1.68	
168.25	173.15		PYTF	2A	FR	LM	CR		18	22	UC/2/05	FR/0/60	PY/DS/1	168.25	170.08	12992	0.81	.07	
GOUG WWW FTW ALT VOLC		DARK GREY MAFIC ASH TUFF WITH disseminated py & V.V. F.G. sulfides as												170.08	170.78	12993	0.63	.07	
		disseminations - minor QTZ/CAL veinlets .1-.5 cm wides - numerous slip planes												170.78	171.60	12994	0.44	.14	
		with clay bandings. Core is not brecciated however. Core is rubbly & broken												171.60	172.20	12995	0.62	.21	
		- obviously a fault shear zone wall area												172.20	173.13	12996	0.67	.07	
173.15	180.75		MFAS	2A	BD	VN	FR		16	14	BD/0/70		PY/DS/.1	173.13	174.65	12997	1.29	.07	
		mildly bleached, unaltered ash tuff - strongly x veined - very little shear												174.65	176.17	12998	1.46	.10	
		slip planes - some parting on bedding planes generally a whole rock with												176.17	177.70	12999	1.27	.03	
		uniform characteristics noted above.												177.70	179.22	17736	1.34	.03	
														179.22	180.75	17737	1.28	.14	
180.75	188.14		MFCA	4A	BD	VN	CR	FR	12	18	BD/0/55	FR/0/10	PY/DS/.1	180.75	182.27	17738	1.32	.03	
		Thin bedded ash tuff in part carbonatized & bx tan. VN QTZ/CAL												182.27	183.99	17739	0.92	.27	
		as .1-2 cm veinlets & blebs scattered throughout. Some sericitic alteration																	
188.14	190.09		MFAS	4G	BD	VN	-	-	0	0	BD/0/30	BD/0/50							

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH GR5UG118

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERAUZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t
190.09	192.10		MFCA	GT	MS	VN	SH		0	16									
192.12	195.99		MFEL	GG	MS	VN	-	-	0	0									
			Greenstone																

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 18, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12928	118	.31				
9		.10				
930		.07				
1		.07				
2		.10				
3		.03				
12934		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 19, 1985

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12935	118	.17				
6		.10				
7		.24				
8		.17				
9		.14				
12940		.10				
1		1.03				
2		3.15				
3		1.13				
4		.34				
5		.34				
6		.41				
7		.10				
8		.14				
9		.03				
12950		.14				
12951		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 20, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: JD

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12952	118	.31				
3		.31				
4		.07				
5		.37				
6		.62				
7		.07				
8		.10				
9		.41				
960		.17				
1		.27				
2		.62				
3		.37				
4		1.20				
5		.17				
6		.07				
7		1.95				
8		1.30				
9		.21				
12970		.27				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 22, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12971	118	.31				
2		.07				
3		.07				
4		.03				
5		.69				
6		3.70				
7		2.09				
8		1.54				
9		.27				
12980		.58				
1		1.37				
2		1.75				
3		1.37				
4		6.03				Ø.6
12985		5.38				Ø.6

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: JAN 14/96

PAGE 1 OF

DRILL HOLE #: G95 U6 119 PROJECT AREA: GRIZZLY SECTION: 23900 N

DRILL HOLE LOCATION DATA

EASTING: 25047.009

NORTHING: 23900.060

ELEVATION: 963.503

HOLE LENGTH (M): 177.70 m

DRILL DIARY

STARTING DATE: 11/01/95 (DD/MM/YYYY)

COMPLETION DATE: 24/01/95 (DD/MM/YYYY)

LOGGED BY: J.F.B RIG: MASSEY-FERGUSON

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: GZ EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	[illegible]	-45.7°	SURVEY
1	15.24	273.5°	-45.8°	SPERRY
2	45.72	271.2°	-47.5°	SPERRY
3				
4				
5	177.70	273.0°	-48.8°	SPERRY

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	0.61	CASE					
0.61	9.41	MFCA					
9.41	29.43	MFLP					
29.43	71.85	MFCA					
71.85	77.33	ARGI					
77.33	82.29	MFCA					
82.29	83.72	ARGI					
83.72	90.54	MFCH					
90.54	93.89	CHXB	HIT WATER @ 93.89 m				
93.89	95.81	DOXB					
95.81	110.95	DOSB	HIGH PRESS. H_2O @ 109.12 m				
110.95	113.85	DOSB	(SAND SEAM)				
113.85	122.48	DOSB					
122.48	128.93	DOXB					
128.93	129.54	LOST	REDUCED TO BQ @ 129.54m				
129.54	158.89	CHXB	High press. H_2O @ 156.36 m				
158.89	160.54	PYTF					
160.54	177.70	MFCA					

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG 119

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	0.61		CASE																
0.61	9.41		MFCA	ST	BD	PP	SK		12		SH/1/	BN/0/20	HE/PT/.1 FU/AM/.2 LI/PT/.1 PY/DS>VN/1	0.61	1.61	16174	0.62	0.41	
														1.61	2.61	16175	0.93	0.34	
														2.61	3.61	16176	0.95	0.07	
														3.61	4.61	16177	0.84	0.07	
														4.61	5.61	16178	0.92	0.07	
														5.61	6.61	16179	0.87	0.10	
														6.61	7.61	16180	0.81	0.10	
														7.61	8.61	16181	0.86	0.03	
														8.61	9.41	16182	0.90	0.07	
9.41	29.43		MFLP	36	BD	SK			0	22	BD/0/35	QC/1/	PY/DS>VN/1 HE/PT/2 CL/PV/20						
														14.37	14.84	16183	0.46	0.03	
														20.97	22.25	16184	1.23	0.03	
														25.68	26.56	16185	0.83	0.07	

Med tanish-brown, bedded w large flattened lapilli frags locally porphyritic or brxed; original rock = MFLP; pervasively carbonatized; Lapilli frags filled w ser +/- QC +/- green mica; → +stockwork

The flattened lapilli frags have an appearance similar to amygdules.

variable from dark green to maroon to bleached tan-grey, bedded @ 30°-40° tca.

- dark green: chloritic, py patches, weak carbonatization
- maroon: hematitic, pyritic (1%), carbonatized.
- bleached tan-grey: pyritic (1%), carbonatized.

(14.37 - 14.84 : chloritic, pyritic (2%) portion.
20.97 - 22.25 : Bleached, carbonatized & pyritic (2%).
25.68 - 26.56 : " " " "

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 119

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
29.43	42.56		MFCA	3T	BD	SK	SH		14	24	BD/0/35	QC/1/	PY/PT/1 FU/VN/.1 // HE/PTALS MV/VN/.1	30.96	31.52	16186	0.55	0.10	
		Bleached tan-grey ± local maroon patches; Fine bedded, original rock = MFAS;												39.59	40.01	16187	0.37	0.07	
		30.96 - 31.52: strongly pyritic (5-10 %).																	
		34.44-37.26 & 40.62-42.21: Moderately broken core ± multiple thin shears.																	
		39.59-40.01: Intense re-healed brxx ± QC frags, 10% py & green mica.																	
42.56	43.90		MFCA	2G	BD				0	22	BD/0/40	QC/1/	PY/DS1.2 HE/BN/.2 // CL/GN/20						
		Dark green, fine bedded ± loc maroon & tan bands; original rock = MFLP; 1% QC stringers (1-8mm).																	
43.90	71.85		MFCA	5T	BD	SK	SH		14	24	BD/0/55	QC/1/	FU/UN/.1 PY/DS>VN/1 // HE/VN/.1 MV/VN/.1						
		Medium tan-grey fine bedded ± local sandy patches @ 55°-70° tca; Rock type = MFEP;												55.52	55.69	16188	0.17	0.27	
		Py variable from .5-3 % (diss^ed + on fracs).																	
		61.53-62.57: Moderately fract^ed core ± thin sericite shears. // 61.94-62.28: 10% f.g.^ed diss^ed py.												61.94	62.28	16189	0.25	0.07	
		55.52-55.69: a 2mm bleb of cpy exists in a 5 cm qtz veinlet.																	
														69.36	70.36	16190	0.86	0.03	
		71.36-71.85: 5% globs of f.g.^ed py along bedding planes.												70.36	71.36	16191	0.89	0.07	
														71.36	71.85	16192	0.45	0.07	
71.85	77.33		ARG1	1N	BD				12	22	BD/0/35	BD/0/75	PY/DS>VN/2 FU/VN/.1 // MV/VN/.2						
		Block fine bedded ARG1 ± interbeds of greenish-tan MFEP sst (35°-75° tca); The												76.33	77.33	16197	0.87	0.07	
		MFEP is carbonatized ± loc ser & FU; minor qtz/carb stringers.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 6 95 UG 119

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
77.33	80.72		MFCA	5 G	BD				12	26	SH/0/	QC/1/65	PY/VN>DS/2 / FU/DS/5 // MU/VN/.1 / HE/VN/.1	77.33	78.33	16198	0.89	.10	
		medium greenish-tan fine bedded @ 55° tca; original rock = MFEP; 1 small interbed of												78.33	79.33	16199	0.93	.07	
		ARGI present; Occasional QC stringers.												79.33	80.33	16200	0.96	.07	
														80.33	80.72	16402	0.29	.07	
80.72	82.29		MFCA	3 A	BD	SH	BX		24	26	SH/1/30	SH/0/60	PY/PT/2 // MU/VN/2	80.72	81.51	16403	0.67	.10	
		Darkish grey; 10% of rock is sheared ⇒ @ 30°, 40° & 60° tca; original rock = MFAS;												81.51	82.29	16404	0.69	.21	
		Local patchy, weak silⁿ.																	
82.29	83.72		ARGI	2N	BD	BX			16	24	SH/0/60		PY/DS>VN/2 / FU/VN/.2 // MU/VN/.2	82.29	83.01	16405	0.68	.14	
		Black fine bedded ARGI ± small interbeds of MFCA; Local patchy silⁿ in the MFCA												83.01	83.72	16406	0.52	.21	
		segments. Occasional thin shears + some re-healed brxx ± a black matrix.																	
83.72	84.91		MFCA	3 A	SH	BD	CR		28	26	SH/2/		PY/PT/5 / MU/VN/5 // FU/DS/2	83.72	84.91	16407	1.03	.14	
		Darkish grey-green sheared (25%), crackled (10%); minor brxx; Original rock = MFEP																	
84.91	90.54		MFCA	2 A	BD	BX	SH	MS	28	26	SH/2/		PY/BM/5 / MU/VN/2 // FU/VN/.1	84.91	85.91	16408	0.96	5.28	2.35 %S
		Dark grey to black MFCA (60%) ± ARGI interbeds (40%); Interspersed re-healed brxx ± black												85.91	86.91	16409	0.74	.69	
		matrix makes up 20% of interval; 20% of rock is sheared; Occasional silᵉᵈ patches;												86.91	87.91	16410	0.90	.21	
		Extremely f.gᵉᵈ sxˢ in BM; Also, PY in fracˢ + dissᵉᵈ (10% sxˢ in total).												87.91	88.91	16411	0.84	.41	
														88.91	89.91	16412	0.77	1.23	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 119

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
90.54	93.89		CHXB	1A	BX	CR			29	28	SH/1/		PY/BM/5
		matrix supported, multi lithic, re-healed brxx → dark grey ish-black; Frag^{s} are white to grey											
		to black, 1mm - 3 cm; Frag^{s} are angular rotated; Pervasively sil^{ed} (moderate to strong); Core											
		highly frac^{ed}; Loc minor gouge shears; 5-10% extremely f.g.^{ed} py in BM & on frac^{s}.											
		Calcite common on frac^{s} & in BM; minor crackled portions.											
93.89	95.81		DOXB	1A	BX	CR			29	18	SH/1/		PY/VN/1
		Very similar to interval: 90.54 - 93.89; 75% matrix supported re-healed brxx, 25%											
		crackle brxx; 1-2% f.g.^{ed} py along frac^{s}; sil^{n} weak & patchy.											
95.81	110.95		DOSB	1A	BX	CR	SH	VG	29	18	SH/4/		PY/VN/.1 & LI/BM/.2
		similar to interval 90.54 - 97.89; 50% matrix supported, re-healed brxx, 30% crackle											
		brxx, 20% sheared core; py is rare & f.g.^{od} on frac^{s}; LIm occasionally in the											
		brxx matrix of sheared rock; Sil^{n} weak & patchy.											
		98.45 - 99.16: highly rubbled core.											
		101.73 - 103.02: sheared & rubbled core w lim stain in the brxx matrix.											
		103.87 - 104.31: sheared & rubbled core.											
		107.59 - 109.20: sheared & slightly rubbled core w lim stain in the brxx matrix.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
89.91	90.54	16413	0.49	3.26	
90.54	91.54	16193	0.91	2.19	
91.54	92.54	16194	1.00	0.55	
92.54	93.54	16195	0.93	0.48	
93.54	93.89	16196	0.31	0.27	
93.89	94.85	16414	0.52	0.96	
94.85	95.81	16425	0.50	0.75	
95.81	96.81	16415	0.74	0.48	
96.81	97.81	16416	0.91	0.48	
97.81	98.81	16417	0.65	0.31	
98.81	99.81	16418	0.93	0.38	
99.81	100.81	16419	0.83	0.31	
100.81	101.81	16420	0.80	0.17	
101.81	102.81	16421	0.73	0.17	
102.81	103.81	16422	0.94	0.10	
103.81	104.81	16423	0.78	0.14	
104.81	105.81	16424	0.60	0.10	

HIT WATER @ 93.89 m 200 psi & 400 gal/min

99.06 m HIGH WATER HIT

109.12 m HIGH WATER HIT

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
110.95	113.85		DOSB	1A	SH	BX			29	18	SH/6/		PY/VN/.1
		An extremely ground and sandy version of the same rock found in interval: 95.81-110.95.											
113.85	122.48		DOSB	1A	BX	CR			29	18	SH/6/		PY/VN/.1
		similar to interval: 95.81-110.95; silⁿ is local & patchy but strong where it occurs.											
		minor local thin shears.											
122.48	128.93		DOXB	1N	SH	BX	BD	MS	28	18	SH/3/30	QC/6/	PY/VN/1
		Black sheared & highly fracᵉᵈ core; very carbonaceous; approx 30% "rip up" clasts											
		of ARG1 present; All core fizzes when scratched; 1% qtz or QC stringers (1-5 mm);											
		Py is generally f.g.ᵉᵈ on fracˢ & dissᵉᵈ (1-2%).											
		125.41-125.68: Highly fracᵉᵈ core ≈ 80% irregular qtz vein fragˢ.											

FROM	TO	Au g/t	Ag g/t	SAMPLE #	RECOV
105.81	106.81	0.74	0.72	16426	
106.81	107.81	0.62	0.21	16427	
107.81	108.81	0.19	0.17	16428	
108.81	109.81	0.23	0.07	16429	
109.81	110.95	0.47	0.07	16430	
110.95	111.95	0.45	0.21	16431	
111.95	112.95	0.55	0.14	16432	
112.95	113.85	0.61	0.17	16433	
113.85	114.85	0.56	0.48	16434	
114.85	115.85	0.81	0.21	16435	
115.85	116.85	0.89	0.27	16436	
116.85	117.85	0.75	0.17	16437	
117.85	118.85	0.69	0.17	16438	
118.85	119.85	0.87	0.38	16439	
119.85	120.85	0.76	0.45	16440	
120.85	121.85	0.81	0.27	16441	
121.85	122.48	0.52	0.82	16442	
122.48	123.48	0.87	0.41	16443	
123.48	124.48	0.88	0.62	16444	
124.48	125.48	0.76	0.17	16445	
125.48	126.48	1.00	0.10	16446	
126.48	127.48	0.98	0.27	16447	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG 119

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														127.48	128.48	16448	0.93	0.21	
														128.48	128.93	16449	0.40	0.17	
128.93	129.54		LOST																
		Lost core due to the installation of BQ casing.																	
129.54	134.01		CHXB	1N	BX	CR			28	28	QV/3/		PY/VN>DS/1	129.54	130.54	16450	0.65	0.27	
Reduced to BQ @ 129.54 m		Black to dark grey; 70% is intense re-healed brxx w angular black to medium												130.54	131.54	16451	0.97	0.31	
		grey rotated clasts / 30% is crackle brxx; minor local shearing but core is												131.54	132.54	16452	0.87	0.38	
		quite solid; Could be sil'ed DOXB; 90% of core is very strongly sil'ed; Non-sil'ed portions fizz when scratched.												132.54	133.54	16453	1.00	0.24	
		133.1m: 5cm wide, irregular qtz veinlet w 1% py (veinlet is crackled).												133.54	134.01	16454	0.47	0.62	
134.01	137.74		CHXB	1N	CR	VN	BX	SH	28	28	SH/1/60	QV/3/	PY/VN/1	134.01	135.01	16455	0.71	2.26	
		Similar to interval: 129.54 - 134.01; Rock types are: 55% crackle, 25% crackled qtz veinlets,												135.01	136.01	16456	0.73	0.24	
		15% re-healed, matrix supported brxx, 10% sheared core; Occasional "rip up"												136.01	137.01	16457	0.74	0.24	
		frag's of bedded, sil'ed ARGI present; 80% of core very strongly sil'ed; The non-												137.01	137.74	16458	0.67	0.17	
		sil'ed core fizzes when scratched; py occurs on qtz veinlets, in frac's, in BM & diss'ed.																	
137.74	158.89		CHXB	1N	CR	BX	VN	SH	26	29	QV/3/		PY/VN/1	137.74	138.74	16459	0.94	0.96	
		similar to interval: 129.54 - 134.01; 70% of rock is crackled & core is quite												138.74	139.74	16460	0.76	0.45	
		highly frac'ed; 2-3% of rock is sheared (thin shears); Very strong pervasive												139.74	140.74	16461	0.84	0.14	
		sil'n; Core is slightly vuggy; 1-2% (Locally 5%) f.g.'ed & very f.g.'ed py.												140.74	141.74	16462	0.65	0.41	
		141.63 - 141.87: irregular, crackled qtz veinlet.												141.74	142.74	16463	0.91	1.17	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
		Occasional irregular qtz veinlet frag's appear through out the interval.											
High press H_2O hit @ 156.36 m		Core more competent after 145.74 m.											
		156.23 – 156.36 : Intense shear = clay gouge.											
158.89	160.54		PYTF	T A	SH	BX	MS	'	29	24	vc/2/60	SH/2/40	PY/VN1.5 HE/PT/2 FU/PT/.1
		Light tan to dark grey to black & highly sheared; Colour changes occur in bands, the tan being more competent rock, the darker rock being shears; Pervasively carbonatized;											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	%S
142.74	143.74	16464	0.71	.55		
143.74	144.74	16465	0.69	.45		
144.74	145.74	16466	0.78	.51		
145.74	146.74	16467	0.94	1.58		
146.74	147.74	16468	0.94	3.05		
147.74	148.74	16469	0.86	2.67		
148.74	149.74	16470	0.72	2.67		
149.74	150.74	16471	0.69	7.20		0.6
150.74	151.74	16472	0.89	14.43		0.8
151.74	152.74	16473	0.81	8.85		1.0
152.74	153.74	16474	0.90	10.11		0.8
153.74	154.74	16475	0.96	13.58		0.7
154.74	155.74	16476	0.92	10.90		0.6
155.74	156.74	16477	0.31	12.10		1.2
156.74	157.74	16478	0.12	4.22		
157.74	158.89	16479	0.93	16.56		1.3
158.89	159.72	16480	0.55	0.21		
159.72	160.54	16481	0.71	0.07		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
160.54	172.03		MFCA	2A	BD	SK			12	22	BD/0/60	BD/0/70	PY/DS>VN/.5 / HE/VN/.2 FU/BN/.5	160.54	161.54	16482	0.76	0.17	
		Dark grey, fine bedded @ 60-70° tca; original rock = MFAS; 2% QC stockwork (1-10 mm).												161.54	162.54	83	0.95	TR	
		161.38-161.53: sheared & highly broken MFCA = 60% frag's of QC.												162.54	163.54	84	0.95	TR	
														163.54	164.54	85	0.96	0.14	
														164.54	165.54	86	0.88	TR	
														165.54	166.54	87	0.95	0.10	
														166.54	167.54	88	0.89	0.10	
														167.54	168.54	89	0.99	TR	
														168.54	169.54	90	0.88	TR	
														169.54	170.54	91	0.76	0.03	
														170.54	171.54	92	0.84	TR	
														171.54	172.03	93	0.38	TR	
172.03	177.70		MFCA	AT	BD	MS	SK		12	24	QC/1/		PY/DS>VN/.2 / HE/PT/1 FU/PT/.1 / MU/PT/.1	172.03	173.03	94	0.91	0.14	
		Alternating bands of dark grey & light tan-cream MFCA → fine bedded to massive; The dark grey rock has 0.5% py; The tan-cream rock has no py, 2% patches of He, & occasional patches of sericite & green mica; original rock = MFAS; local minor rehealed, matrix supported brxx; 2% QC stockwork (1-10 mm).												173.03	174.03	95	0.93	0.51	
														174.03	175.03	96	0.75	0.14	
														175.03	176.03	97	0.83	0.31	
														176.03	177.03	98	0.76	0.22	
														177.03	177.70	99	0.52	0.10	
		EOH = 177.70 m																	

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 14/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: (1)

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16174	119	.41				
5		.34				
6		.07				
7		.07				
8		.07				
9		.10				
180		.10				
1		.03				
2		.07				
3		.03				
4		.03				
5		.07				
6		.10				
7		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 14/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: d

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16193	119	2.19				
4		.55				
5		.48				
16196		.27				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 15/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16188	119	.27				
9		.07				
190		.03				
1		.07				
192		.07				
197		.07				
8		.10				
9		.07				
16200		.07				
16402		.07				
3		.10				
4		.21				
5		.14				
6		.21				
7		.14				
8		5.28				2.35
9		.69				
410		.21				
1		.41				
2		1.23				
16413		3.26				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: JAN. 23/95

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16414	DH 119	.96				
5		.48				
6		.98				
7		.31				
8		.38				
9		.31				
420		.17				
1		.17				
2		.10				
3		.14				
4		.10				
5	Out of sequence.	.75				
6		.72				
7		.25				
8		.17				
9		.07				
430		.07				
1		.21				
2		.14				
16433		.17				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: JAN. 23, 1995

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16434	DH119	.48				
5		.21				
6		.27				
7		.17				
8		.17				
9		.38				
440		.45				
1		.27				
2		.82				
3		.41				
4		.62				
5		.17				
6		.10				
7		.27				
8		.21				
16449		.17				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: JAN. 24/95

ASSAYER: V.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16450	DH 119	.27				
1		.31				
2		.38				
3		.24				
4		.62				
5		2.26				
6		.24				
7		.24				
8		.17				
9		.96				
460		.45				
1		.14				
2		.41				
3		1.17				
4		.55				
16465		.45				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: JAN. 24/95

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16466	DA 119	.51				
7		1.68				
8		3.05				
9		2.67				
470		2.67				
1		7.20		1.9		.6
2		14.43		.6		.8
3		8.85		.7		1.0
4		10.11		.2		.8
5		13.58		.3		.7
6		10.90		.5		.6
7		12.10		1.7		1.2
8		4.22				
16479		16.56		.6		1.3

10.98 g/t Au over 9.15 m

11.44 g/t Au over 8.15 m

GOLDEN BEAR OPERATING COMPANY

DATE: January 25/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hegr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16480	D.H. # 119	0.21				
81		0.07				
82		0.17				
83		TR				
84		TR				
85		0.14				
86		TR				
87		0.10				
88		0.10				
89		TR				
90		TR				
91		0.03				
92		TR				
93		TR				
94		0.14				
95		0.51				
96		0.14				
97		0.31				
98		0.21				
99	↓	0.10				
17240	D.H. # 122	0.14				
41	↓	0.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: JAN. 15, 1995

PAGE 1 OF

DRILL HOLE # 95UG120 PROJECT AREA: GRIZZLY SECTION: 23900 N

DRILL HOLE LOCATION DATA

EASTING: 25046.568

NORTHING: 23900.045

ELEVATION: 964.109

HOLE LENGTH (M): 177.69

DRILL DIARY

STARTING DATE: 14/01/95 (DD/MM/YYYY)

COMPLETION DATE: 2[illegible]/01/95 (DD/MM/YYYY)

LOGGED BY: JFB/AAH RIG: MASSEY-FERGUSON

CONTRACTOR: ADVANCED CORE SIZE: NQ / BQ

SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	271.701	-22.697	SURVEY
1	45.72	271.5°	-23.6°	SPERRY
2	121.91	271.5°	-25.75°	SPERRY
3	176.77	271.5°	-26.5°	SPERRY
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	1.53	CASE					
1.53	83.71	MFCM	HIT WATER @ 83.71 m				
			HIGH PRESS. H_2O @ 99.67 m				
			103.63m reduced to BQ				

COMMENTS:

CHECK LIST: ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	1.53		CASE																
1.53	10.82		MFCA	5A	BD	SH	BX	SK	14	24	SH/1/25	BD/1/20	PY/DS>VN/.2 HE/PT/.5 MV/CL/1						
			med grey to tan ± local maroon & green patches; bedded ± many large flattened lapilli frags (which look like amygdules) filled ± ser (MV) ± QC; loc minor brxx patches; original rock = MFLP; 2% QC stockwork (1-10 mm). 1.53 - 2.77: Broken core + several thin gouge shears. 4.02 - 4.95: Re-healed matrix supported angular brxx ± 3% gobs of py.											4.02	4.95	16601	0.23	0.24
10.82	21.10		MFCA	2G	BD	SK			0	22	BD/1/35	QC/1/65	PY/DS>V/.2 HE/VN/.5 CL/PV/30						
			Basically a dark green, chloritic & non-bleached version of interval: 1.53 - 10.82											15.50	15.68	16602	0.18	0.14	
			15.50 - 15.68: 3 cm wide seam of broken, massive py.																
			20.90 - 21.10: 1-2½ cm wide seam of broken, massive py.											20.90	21.10	16603	0.19	0.07	
21.10	25.40		MFCA	4T	PP	MS	BN	BX	14	24	SH/1/75	BN/1/10	PY/DS/.1 HE/VN/.2 MV/PT/.1 CL/PT/1						
			medium tan-grey porphyritic, banded & massive MFLP; minor white talc/ser locally in shears; 0.5% QC stockwork. 24.63 - 25.40: Re-healed, angular clast supported brxx + moderate shearing ± gouge.											24.63	25.40	16604	0.73	0.03	
25.40	29.40		MFCA	5T	MS	BD			14	24	SH/0/		PY/DS/.2 HE/VN/1 FU/PT/.1 CL/PT/1						
			Generally medium tan ± local maroon or dark green patches, massive, locally fine bedded; Occasional minor shears; Original rock = MFMS; Local thin seams of white talc/ser on fracs; 28.69: Irregular py seam, ½ cm wide 25° tca.											28.59	29.40	16605	0.61	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t
29.40	50.41		MFCA	GT	BD	PP			12	24	QC/1/	SH/1/55	PY/PT/.2 CL/PT/5 | HE/PT>VN/2 FU/VN/.1						
		Colour variable from dark green, to med. tan to maroon; Generally fine bedded, locally porphyritic (xl tuff portions); original rock = MFLP; Rare minor shears; 2% QC stockwork (1-20 mm); 38.30 - 44.65: Intermittent medium grained granitoid dykelets (irregular); 49.44: 4-5 cm. atz veinlet @ 60° tca ± blobs of py & cpy (5% each).												49.40	49.68	16606	0.29	0.03	
50.41	72.71		MFCA	ST	BD				12	24	BD/0/60	SH/0/85	PY/DS/.2 HE/PT/.1 | FU/BN/.1 MU/PT/.1						
		medium tan to grey, fine bedded @ 50°-70° tca; Original rock = MFAS; Local irregular qtz or calcite veinlets (2-4 cm); Rare, local small shears; Rare chlorite patches. 56.37-56.87: matrix supported, re-healed angular brxx w/ calcite or qtz as the BM filling.												56.37	56.87	16607	0.31	0.03	
72.71	76.27		MFCA	ST	BD	SH			16	28	BD/0/50	SH/1/50	PY/BN/5 FU/BN/.5 | MU/VN/.5 HE/PT/.1	72.71	73.71	16608	0.93	0.31	
		Same rock as interval 50.41-72.71 except that 1% py occurs in irregular bands (2 mm - 1 cm wide). Several small shears present; Bedding @ 40°-60° tca.												73.71	74.71	16609	0.95	0.24	
														74.71	75.71	16610	0.92	0.31	
														75.71	76.27	16611	0.54	0.21	
76.27	80.86		MFCA	ST	BD				12	26	BD/0/40	SH/0/30	PY/DS/1 HE/VN/.2 | FU/BN/5 MU/VN/1	76.27	77.27	16612	1.02	0.07	
		Basically the same as interval 50.41-72.71; Bedding @ 25°-40° tca.												77.27	78.27	16613	0.94	0.03	
		77.12-77.63: } Heavy concentrations of banded green micg (10%-15%).												78.27	79.27	16614	0.88	0.03	
		80.44-80.86: }												79.27	80.27	16615	0.90	TR	
														80.27	80.86	16616	0.56	0.03	
80.86	83.71		MFCA	ST	BD	SH			16	28	BD/0/50	LC/2/50	PY/BN/5 FU/BN/.1 | MU/VN/.5	80.86	81.86	16617	0.89	0.03	
		Same as interval 72.71-76.27; lower contact is a 4 cm wide shear @ 50° tca.												81.86	82.86	16618	0.93	0.07	
														82.86	83.71	16619	0.73	0.14	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

SHOULD BE MUCH LOWER (22)

c:\data\expl-geo\lithol.wk3 DDH 695 U6 120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
83.71	103.63		DOSB	4A	BX	VG			29	2.8			PY/VN/.1 | LI/VN/.1	83.71	84.71	16620	0.60	0.17	
83.71 m water hit 70-100 gal/min 200 psi													matrix supported, multilithic re-healed brxx; dark greyish-black; Frag's are white to grey to black, 1mm-3 cm; Frag's angular & many are rotated; Pervasive, patchy sil"; Calcite common on frac's and in brxx matrix; Core highly frac'ed & vuggy; Occasional py grains on frac's (uncommon).	84.71	85.71	16621	1.00	0.31	
														85.71	86.71	16622	0.98	0.21	
														86.71	87.71	16623	0.71	0.07	
														87.71	88.71	16624	0.89	0.27	
														88.71	89.71	16625	0.14	0.10	
													88.29-90.61: Limonite staining on frac faces.	89.71	90.71	16626	0.12	0.07	
													- unit contains ~5% dark grey to black amorphous dust cloasts concentrated here: 90.71-94.71m + 102.71-103.63m. Rest is sil clast	90.71	91.71	16627	0.59	0.10	
														91.71	92.71	16628	1.00	0.14	
														92.71	93.71	16629	0.58	0.21	
														93.71	94.71	16630	0.76	0.14	
														94.71	95.71	16631	0.84	0.07	
														95.71	96.71	16632	0.82	0.24	
														96.71	97.71	16633	0.76	0.14	
														97.71	98.71	16634	0.69	0.14	
														98.71	99.71	16635	0.97	0.17	
99.67 m High pressure water hit ~400 gal/min ~400 psi														99.71	100.71	16636	0.70	0.03	
														100.71	101.71	16637	0.67	0.34	
														101.71	102.71	16638	0.48	0.34	
														102.71	103.63	16639	0.34	0.34	
103.63	113.47	FZ	DOSB	5A	BX	VG			29	24	—	—	PY/DS/PP	103.63	104.55	16640	0.45	0.24	
REDUCE TO BQ CORE @ 103.63m													- similar to 83.71-103.63 except not as silicic and section is strongly faulted. Core extremely broken to sandy with very low recovery (~2.5-3.0m core for 10.0m advance). Larger core fragments show a matrix supported dy xx ~1-2% open vuggy spaces in both clasts	104.55	106.07	16641	0.30	1.95	
														106.07	109.12	16642	0.80	0.86	
														109.12	110.64	16643	0.25	1.27	
														110.64	113.47	16644	0.20	0.72	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG-120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
113.47	118.70		DOSB	4A	Bx	VG			12	22	FR/0/80	LC/0/40	PY/DS/PP
			- medium to darkish gray brecciated and weakly silicified dolomite w dark grey dacite clasts @ 3-5%. Clasts variably rotated 0.3 - 5.0 cm Calcite common as matrix filling or veg coatings. Veins @ 2-3% of volume. Fracts very common @ 80° TCA. Lower contact stylolitic and strays @ 40° TCA. Minor bx over 20 cm @ base of section w clasts from underlying unit. Suggest erosional surface. Fine grained py may be present in veins - hard to see even under 40x								
118.70	130.35		DOSB	9A	Bx	VG	CR		14	22	FR/0/50	FR/0/70	PY/VN/0.1
			- lightish grey to almost white, weakly silicified, brecciated dolomite. Little or no rotation, so could be considered crackled. Fizzes w HCl when scratched. Unit contains minor veins @ 1% of vol. Fracts @ 50° + 70° TCA. Pyrite occurs as dark grey fracture coatings or microveins. Locally, a trace of diamonds (125.70 - 126.10 m)								

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
113.47	114.47	16645	1.02	0.34	
114.47	115.47	16646	0.91	0.10	
115.47	116.47	16647	0.91	0.03	
116.47	117.47	16648	1.07	TR	
117.47	118.47	16649	1.00	0.07	
118.47	118.70	16650	0.19	0.48	
118.70	119.70	16651	0.80	0.17	
119.70	120.70	16652	0.75	TR	
120.70	121.70	16653	0.70	0.10	
121.70	122.70	16654	0.56	0.07	
122.70	123.70	16655	0.80	0.17	
123.70	124.70	16656	0.69	0.17	
124.70	125.70	16657	0.66	0.14	
125.70	126.70	16658	0.67	0.51	
126.70	127.70	16659	0.43	0.38	
127.70	128.70	16660	0.41	0.07	
128.70	129.70	16661	0.81	0.07	
129.70	130.35	16662	0.62	0.17	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
130.35	142.65		DOSB	3A	BX	VG	SH		14	22	FR/0/45	FR/0/70	PY/GO/0.5//PY/DS/0.1	130.35	131.35	16663	0.93	0.10	
		- dark grey, generally matrix supported, weakly + patchily silicified												131.35	132.35	16664	0.85	0.96	
		dolomite breccia. Clasts show variable rotation from jigsaw to												132.35	133.35	16665	0.93	0.31	
		chaotic, 0.3-3.0 cm in size, subangular. A small dark black												133.35	134.35	16666	0.96	0.27	
		chert component is present ≈3-5% @ top of section ↑ downhole to												134.35	135.35	16667	0.97	0.79	
		≈5-10%. Unit is variably vuggy from 0.5% to 2-3% of core volume.												135.35	136.35	16668	0.75	3.60	
		Sheared from: 134.5-134.8, 135.1-135.3, 142.35-142.65 w̄ a dark												136.35	137.35	16669	0.98	2.02	4.03/4.0
		grey pyrite gouge/matrix. Pyrite also as ocsl dark grey gouge slips												137.35	138.35	16670	0.92	4.18	
		and as vfg dissem throughout. Qtz xals (very small in vugs).												138.35	139.35	16671	0.90	6.31	1.3
		Fracts common @ 45+70° TCA. Trace, erratic micro calcite veins + patches.												139.35	140.35	16672	0.97	0.75	
														140.35	141.50	16673	0.81	0.10	
														141.50	142.65	16674	0.97	0.55	
142.65	145.24		MFCA	TR	FO	BX	SH	GO	16	14	FO/0/65	FR/0/50	PY/GO/0.1	142.65	143.95	16675	1.25	0.07	
		- tannish red, moderately sheared + foliated volcanic (textures suggest a												143.95	145.24	16676	1.25	0.10	
		flow or xal tuff). Quite variable from sheared to brecciated. Minor gouge on																	
		shear planes (also graphitic). Fracts @ 65° TCA, Fol^n @ 50° TCA. Pyrite occurs																	
		in dark grey gouge on shear planes and as vfg dissem throughout.																	
145.24	148.26		DOSB	5A	BX	SH	GO		24	24	FR/0/70	SH/2/70	PY/GO/0.5//PY/DS/PP	145.24	146.24	16677	0.96	0.27	
		- medium grey, patchily silicified and sheared dolomite breccia. Clasts												146.24	147.24	16678	0.93	0.31	
		0.2-2.5 cm and variably rotated. Fractures + matrix are strongly calcareous												147.24	148.26	16679	1.02	0.17	
		Sheared over 5-15 cm width every 20-40 cm w̄ dark grey pyrite																	
		clayey gouge. Fracts + shears @ 70° TCA. Py as vfg dissem (trace)																	

%S

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG120

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
148.26	149.54	FZ	MFCA	TR	SH	GO			29	24	VC/0/80	LC/0/80	PY/DS/0.1	148.26	149.54	16680	1.18	0.07	
		-altered volcanic, very similar to 142.65-145.24 except very strongly sheared and gouge. Shearing and upper + lower contacts @ 80° TCA. Py as disseminations and as veins in gouge ± 0.1%. Gouge ≈ 20% of section. Core strongly broken.																	
149.54	151.74	FZ	GOUG	2A	GO	SH			29	24	SH/7/60	LC/0/60	PY/GO/5	149.54	150.64	16681	1.05	0.03	
		-dark grey, extremely gouge, sheared carbonate. Both dol + LMST clasts present, 0.5-5.0 cm, in a dark grey to black strongly pyritic gouge (5-10% vfg PY). Shearing + lower contact ≈ 60° TCA (strong fabric)												150.64	151.74	16682	1.00	0.07	
151.74	157.05		LMST	W	MS	CR	GO		16	0	FR/0/45	FR/0/70	PY/VN/0.5	151.74	152.74	16683	0.97	TR	
		-massive, crackled, white limestone. Occ stylolitic contact/seam fronts @ 45+70° TCA often coated in vfg to mg py in a greenish grey gouge (clay). Py content 0.25-1.0%. Core moderately to strongly broken. Bottom 30 cm is a medium grey color and strongly brecciated. Upper contact steep @ 60° TCA, lower contact steep @ 50° TCA												152.74	153.74	16684	0.70	TR	
														153.74	154.74	16685	0.80	TR	
														154.74	155.74	16686	0.80	0.14	
														155.74	156.74	16687	0.83	0.07	
														156.74	157.05	16688	0.25	TR	
157.05	177.69		MFCA	GR	MS	VN			12	14	QA/1/50	FR/0/65	FU/SP/0.1	157.05	158.05	16689	0.60	TR	
		dark greenish red mafic tuffs, vaguely bdd. Protolith appears to be a flow. Moderately qtz-carb veined, 1.0-3.0 mm wide, one every 5-15 cm @ 50° TCA. Fronts @ 65° TCA. Rare spots of fuchsite to 20 mm. Bdy vague @ 50° TCA												158.05	159.05	16690	0.91	0.07	
														159.05	160.05	16691	0.40	TR	
														160.05	161.05	16692	1.00	0.21	
														161.05	162.05	16693	1.00	TR	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95UG120

Page 7 of 7

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t
157.05+														162.05	163.05	16694	0.95	0.10	
CONT														163.05	164.05	16695	1.00	0.10	
177.69	177.69		EOH																
		- end of hole																	

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 18, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: CL

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16601	120	.24				
2		.14				
3		.07				
4		.03				
5		.07				
6		.03				
7		.03				
8		.31				
9		.24				
610		.31				
1		.21				
2		.07				
3		.03				
4		.03				
5		TR				
6		.03				
7		.03				
8		.07				
9		.14				
620		.17				
1		.31				
2		.21				
3		.07				
16624		.27				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 18, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16625	120	.10				
6		.07				
7		.10				
8		.14				
9		.21				
630		.14				
1		.07				
2		.24				
3		.14				
4		.14				
5		.17				
6		.03				
7		.34				
8		.34				
16639		.34				

GOLDEN BEAR OPERATING COMPANY

DATE: January 22/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hop

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16640	D.H. # 120	0.24				
41		1.95				
42		0.86		> 1.25		
43		1.27				
44		0.22				
45		0.34				
46		0.10				
47		0.03				
48		TR				
49		0.02				
50		0.48				
51		0.17				
52		TR				
53		0.10				
54		0.02				
55		0.17				
56		0.17				
57		0.14				
58		0.51				
59		0.38				
60		0.07				

GOLDEN BEAR OPERATING COMPANY

DATE: January 28/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: A. Hegr

Underground DH130

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16661		0.07				
62		0.17				
63		0.10				
64		0.96				
65		0.31				
66		0.27				
67		0.79				
68		3.60				
69		2.02	4.03/4.0 m			
70		4.18				
71		6.31				1.33
72		0.25				
73		0.10				
74		0.55				
75		0.07				
76		0.10				
77		0.27				
78		0.31				
79		0.17				
80		0.07				
81		0.03				
82		0.07				
83		TR				
84		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: January 28/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: A. Hogan

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16685	D.H. # 120	TR				
86		0.14				
87		0.07				
88		TR				
89		TR				
90		0.07				
91		TR				
92		0.21				
93		TR				
94		0.10				
95		0.16				
17764	D.H. # 122	0.11				
65		0.10				
66		0.03				
67		TR				
68		0.07				
69		0.07				
70		TR				
71		0.03				
72		TR				
73		TR				
74		0.38				
75		0.07				
76		0.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: JAN. 17, 1995

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DRILL HOLE # G95 UG 121 PROJECT AREA: GRIZZLY SECTION: G 23900 N

DRILL HOLE LOCATION DATA

EASTING: 23899.85

NORTHING: 25055.15

ELEVATION: 964.42

HOLE LENGTH (M): 58.83 m

DRILL DIARY

STARTING DATE: 17/01/95 (DD/MM/YYYY)

COMPLETION DATE: 20/01/95 (DD/MM/YYYY)

LOGGED BY: JFB RIG: MASSEY-FERGUSON

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: GZ EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	273.168	-7.159	SURVEY
1	45.72	271.5°	-8.2	SPERRY
2				
3				
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	0.61	TRIC					
0.61	58.83	MFCA	EOH				

COMMENTS:
HOLE WAS ABANDONED AFTER THE DRILL BIT SNAPPED AND CREATED DIFFICULTIES. THE CORE TUBE BECAME SEPARATED AND WAS STUCK IN THE BOTTOM OF THE HOLE.

CHECK LIST: ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	0.61		TRIC																
0.61	7.42		MFCA	4A	BD	BX	SH	CR	26	26	BD/0/50	SH/3/40	PY/2/PT / HE/PT/.2 / FU/VN/.1 / MU/VN/.5						
			Medium to darkish-grey, fine bedded (55%), brxx'ed (re-healed, matrix supported, angular : 25%), sheared (10%) & crackled (10%); Bedding @ 30°-50° tca; Original rock = MFLP; Py occurs as disseminations, on frac's & (shears) loc large blobs from 0.5%, locally to 10% (5% overall). 2.40-3.08: Gougy shear zone. 6.42-7.42: 10% thin pyritic shears & re-healed brxx.													2.40	3.08	16801	0.45	0.03
														6.42	7.42	16802	0.91	0.45
7.42	58.83		MFCA	TG	BD	BN			12	24	QC/1/	BD/0/15	PY/DS/.2 / LI/VN/.5 / FU/PT/.1 / HE/PT/.5						
			Medium to light tan-grey to dark green to maroon (patches of each); The light tan grey patches are fine bedded MFAS; The medium tan-grey, green & maroon patches are MFLP; bedding @ 0°-15° tca, occasionally to 25° tca; some larger frag's of MFLP are flattened & replaced by ser ± QC (These look similar to amygdules); sericite common on frac's; The dark green intervals are pervasively chloritized; occasional thin shears here & there; ½-1% QC stringers (1 mm - 1 cm); py occurs as blobs, dissemination & along frac's (0.1-2%).													46.18	46.43	16803	0.15	0.07
														56.83	57.83	16804	1.02	0.17
														57.83	58.83	16805	0.99	0.07
													46.18-46.43: Irregular qtz vein = 2% py x/s (2-10 mm). 50.34-53.91: Banded x/l tuff portion (30% fsp x/s → 1-2 mm).						
													EOH = 58.83 m						

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 20, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16801	121	.03				
2	"	.45				
16803	"	.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 21, 1995

MINE ASSAY REPORT (D/D SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16804	121	.17				
16805	E/O/H	.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____

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DRILL HOLE # 695UG122 PROJECT AREA: GRIZZLY SECTION: 23950N

DRILL HOLE LOCATION DATA

EASTING: 25057.588 25058.14

NORTHING: 23948.858 23948.19

ELEVATION: 958.061 958.06

HOLE LENGTH (M): 180.75

DRILL DIARY

STARTING DATE: 23/01/95 (DD/MM/YYYY)

COMPLETION DATE: 28/01/95 (DD/MM/YYYY)

LOGGED BY: DLC/APH RIG: TRACTOR - INTERNATIONAL

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: GZ EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	269°.438 [illegible]	-9°.674	SURVEY
1	45.72	273°	-10.5	
2	106.67	272°	-13.25	SPERRY
3	180.75			SPERRY - failed. Did
4				not try second
5				time! *

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0	16.30		GRDI	6W	MS	FR	PO	—	14	0	FR/0/60		PY/DG/1 HE/PS/2						
		Sericitic; feldspar/quartz porphyry. euhedral with edges rounded. spotty; mottled with brassy py & primary He as blebs, DS, & veins some rip up 2-9 cm sections of tan-white MFAS scattered as xenoliths																	
16.30	25.05		MFFL	5G	MS	PO			0	12	—	—	-						
		massive porphyritic appearing flow rock - minor alteration to light green micas around nodular feldspars - hematite veinlets -, 1-2 mm wide shot throughout to 1%																	
25.05	30.36		MFAS	5G	MS	BD	FL		11	12	BD/0/50	BD/0/45	FU/PS/6						
		Thin bedded altered ash tuffs with minor thin FF flows. hematite veinlets 1-1 mm wide scattered throughout. Minor lapilli bands 1-3 cm wide w/lapilli altered to dark green.																	
30.36	31.64		MFFL	5R	MS	FL			10	12			HE/PS/30. FU/PS/10						
		Christmas rock! primarily dark red he with amygdules of lite green at a ratio of 50% R - 50% green. Flow banding evident but very variable angles of 10° TO 45°																	
31.64	32.82		BSDY	1N	MS				0	0	UC/0/90	LC/0/30	—						
		Massive dyke																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
32.82	33.20		MFFL	6G	MS				–	–	–	–	–						
		Short zone																	
33.20	39.89		GOUG	6A	GO	BX	–	–	28	26	UC/60	LC/0/60	PY/DS/2	33.20	33.70	17740	0.43	0.14	
CUB FAULT ?		33.20 - 33.70 - lite grey gouge w dissem py & stringers (brassy) strong sense of shear at 050° CA -												33.70	39.89	17741	1.25	0.03	
		33.70 - 34.89 - well rehealed breccia - matrix supported; BX clasts .1 - 3cm² ANGULAR & rotated - very light LC (± 2cm WIDE																	
34.84	56.18		MFAS	6A	BD	MS	VN		0	12	FR/0/60								
		light grey to green ash tuff - very variable bedding from 5 - 80° CA - patchy bleaching throughout sulfides not present beyond .1% in patches - homogenous generally with minor He patches < 1m & veinlets - not much else to say! minor fracturing at generally 060° CA. with < 1mm carb/qtz on fracture planes.																	
56.18	58.78		MFCA	GA	BD	VN	BX		16	16	BD/0/30	FR/0/45	HE/CO/0.1 // FU/VN/0.1						
		- light greenish-grey, lightly altered, strongly veined mafic ash tuff. Bedding 15-30°TCA. Erratic qtz-carb veining w minor brecciation. Veins generally 1-4mm w trace fuchsite. One coarse calcite vein 20cm wide @ 57.80m. Hem on fracts.																	
58.78	61.25		MFTF	5G	BD	VN			0	12	FR/0/60	BD/0/30	PY/DS/0.1 // HE/CO/0.1						
		- medium green thin bedded mafic ash tuff. Bddg @ 30°TCA, fracts @60°TCA. Very weakly veined @60°TCA, 1 every 15-30cm. Carries trace fg dissem py, minor hem on fract.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
61.25	62.44		MFCA	RT	BD	BX	VN		12	14	FR/0/60		PY/DS/0.1//HE/CO/0.1						
		reddish tan, bedded, locally brecciated, weakly to moderately alt volcanic tuff. Bedding at ∡ <50° TCA and contorted. Breccia fragments subrounded in a hem matrix. Contains trace fg diss py, hem on fracts. Rare qtz sweat, rare qtz carb vein to 1.5cm.																	
62.44	68.17		MFTF	SG	BD	VN			0	0	BD/0/55	FR/0/55	PY/DS/0.1						
		- medium green, thin bedded, basically unaltered mafic volcanic tuff. Bddg @ 55° TCA, fractures often // bddg. Very weakly qtz veined // bddg + various ∡TCA, 1.0m wide, one every 15-40cm. Trace fg dissem pyrite throughout																	
68.17	73.34		MFCA	TR	BD	VN	MS		0	12	BD/0/55	FR/0/55	PY/DS/0.1//HE/BD/0.1						
		Tannish red, thin bedded, massive, weakly altered mafic ash tuffs. Bddg @ 55° TCA, fracts // bddg. Carries trace fg dissem py, beds are hematitic. Weakly veined carbonate veined, 1-2mm, generally // bddg, 1 every 15-50cm.																	
73.34	81.69		MFCA	TG	BD	MS	VN	GO	12	12	BD/0/60	FR/0/70	PY/DS/0.1//MU/PV/0.5						
		- light tannish green, massive thin bedded, lightly altered tuffs. Lightly qtz-carb veined, 1-2mm, various ∡TCA, 1 every 15-30cm. Bddg @ 60° TCA, fracts @ 60-70° TCA. Contains trace vfg diss py throughout. Pervasive musc. as an alt mineral																	
81.69	86.88		MFCA	RT	BD	MS	VN		0	12	BD/0/60	FR/0/60	PY/DS/PP//HE/VN/0.1						
		light reddish tan colored, bedded, massive, weakly to moderately altered tuffs. Very weakly veined 1.0mm w strong hematite. Hem also on fracts. Carries trace vfg diss pyrite																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
86.88	93.96		MFCA	AT	BD	MS	GO	BX	12	14	BD/0/75	FR/0/20	PY/DS/0.1 //MV/

light greyish tan, massive, bedded, weakly to moderately altered mafic ash tuffs. Bddg consistent btw 70 + 85° TCA. Fracts common along bddg planes, which are commonly ser or smeared + coated. Carries trace vfg diss py throughout. 10cm gouge material in mvn brecciated @ 89.00m (bddg ill-defined). Trace erratic qtz-carb veinlets. Minor argillite in lowest 0.5m of section.

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
93.96	99.15		MFCA	76	MS	GO	VN		14	14	FR/0/35	FR/0/60	PY/DS/0.5//

light green massive, weakly to moderately altered mafic volcanic. Texture suggest protolith was an xal tuff or a flow. Trace gouge on all fracts, more strongly gouge in upper 1.5m of section. Minor qtz-carb veining throughout. Some veins @ 75° TCA but also erratic. Overall 0.25 - 0.5% disseminated py throughout, 1.0% in upper gouge section

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
99.15	104.77		MFCA	5A	BD	SH	GO	VN	24	24	FR/0/50	KC/0/55	PY/DS/0.5

- medium grey, bedded, moderately to strongly altered mafic tuffs. Section contains ~10% argillite. Bedding contorted and variable but generally @ low to TCA. Locally sheared in 3-5% gouge particularly @ base of section. Fracts are 50° TCA. Lower contact steep @ 55° TCA.

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
92.96	93.96	17742	0.96	0.24	
93.96	94.96	17743	1.03	0.51	
94.96	95.96	17744	0.94	0.10	
95.96	96.96	17745	0.93	0.86	
96.96	97.96	17746	1.05	TR	
97.96	99.15	17747	1.13	TR	
99.15	100.15	17748	1.05	0.10	
100.15	101.15	17749	0.75	0.17	
101.15	102.35	17750	1.15	0.07	
102.35	103.55	17751	1.10	0.21	
103.55	104.77	17752	1.10	0.10	

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
104.77	110.79		CHRT	3A	BD	BX	VG	VN	14	24	BD/1/50	FR/0/60	PY/DS/0.5	104.77	105.77	17753	0.99	0.14	
		dark grey, thin to medium bedded chert w/ minor interbedded dolomite,												105.77	106.77	17754	0.95	0.17	
		also dark grey. Dolomite variably silicified. Unit is locally												106.77	107.77	17755	0.90	0.55	
		brecciated particularly @ top of section near contact. Bddg often @												107.77	108.77	17756	0.95	1.17	
		≤50° TCA but also contorted. Minor vugs in dol sections ≤ 1% of volume.												108.77	109.77	17757	0.97	1.54	
		Weakly qtz-carb veined @ various ≤ TCA. Fracts common @ ≤ 60° TCA												109.77	110.79	17758	0.92	2.74	
		Contains 0.5-1.0% vfg dissem pyrite throughout.																	
110.79	113.56		DOSB	2A	BX	VG	VN		0	26	FR/0/55	LC/0/60	PY/DS/0.1	110.79	111.79	17759	1.01	1.23	
		very dark grey, moderately silicified and brecciated dolomite w/												111.79	112.79	17760	1.20	0.58	
		a chert component (bedded clasts). Clasts rotated, varying from												112.79	113.56	17761	0.76	2.09	
		0.25cm - 2.0cm in size, generally angular. Calcite as bx matrix and																	
		as veins to 0.5cm @ 80° TCA (sparse). Dolomite sections contain vugs																	
		to 0.5cm in size ≤ 1-2% of overall volume. Fracts common @																	
		55° TCA. Lower contact sharp @ 60° TCA. Unit contains vfg dissem																	
		pyrite ≤ 0.1-0.5%. From 112.29-112.79 section is comprised of																	
		white extremely silicic clasts (qtz?, LMST?)																	
113.56	115.96		PYTF	5A	MS	SH	GO	BX	26	26	SH/3/70		PY/DS/2	113.56	114.76	17762	1.14	2.85	
		- medium grey, massive strongly pyritized volcanic tuff												114.76	115.96	17763	1.12	2.88	
		moderately sheared over 2-20cm widths throughout																	
		with gouge and minor breccia. Gouge locally comprises																	
		10-20% over narrow widths. Pyrite 2.5-5.0%.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
115.96	125.88		DOSB	SA	BX	VN	CR	SH	18	24	FR/0/40	FR/0/70	PY/DS/PP	115.96	116.96	17764	0.95	0.41	
		-medium to dark grey, weakly to mod. silicified dolomite breccia												116.96	117.96	17765	0.99	0.10	
		and/or crackled dolomite. Has a dark grey to black chert component												117.96	118.96	17766	0.80	0.03	
		≤ 5% of unit. Clasts 0.3-4.0 cm and angular. Moderately calcite												118.96	119.96	17767	0.40	TR	
		veined 0.1-0.5 cm wide, 1 every 1-3 cm @ various ∡TCA. Oxsl very												119.96	120.96	17768	0.72	0.07	
		narrow, gougy shear. Fracts @ 40+70° TCA. Trace vfg dissem												120.96	121.96	17769	0.31	0.07	
		pyrite. Clasts exhibit varying degrees of rotation. Trace limonite												121.96	122.83	17770	0.74	TR	
		on fracts from 121.96-125.88 m.												122.83	124.36	17771	0.52	0.03	
														124.36	125.88	17772	0.22	TR	
125.88	127.41	FZ	LOST																
		-fault zone																	
127.41	128.93		DOSB	SA	BX	VN			19	24	—	—	—	127.41	128.93	17773	0.23	TR	
		-identical to section 115.96-125.88 except more strongly																	
		broken. May have been gougy but seems washed. No																	
		py noted. Cross cut by numerous hairline, limonitic calcite																	
		veinlets (micro)																	
128.93	129.69		DOSB	TR	BX				16	24			HE/BM/0.5	128.93	129.69	17774	0.37	0.38	
		-medium, tannish-red weakly silicified dol breccia, clasts 0.2																	
		-1.0 cm and rotated. Red color due to hematite in breccia																	
		matrix. Matrix is strongly calcareous.																	

NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
129.69	131.25		DOSB	5A	BX	CR			16	24	FR/0/75		L1/BM/1 // PY/DS/0.1	129.69	131.25	17775	0.90	0.07	
		-medium grey, brecciated, weakly silicified dolomite. ≤10% dark grey to black chert frags. Clasts 0.2 - 5.0 cm w/ larger ones, crackles. Entire unit has highly calcareous limonite breccia matrix ≤10-15% of rock. Trace dissem py. (very fine)																	
131.25	131.98	FZ	DOSB	OT	BX				19	24	—	—	L1/CO/0.5	131.25	131.98	17776	0.20	0.03	
		-unit similar to 129.69-131.25 except core extremely broken (still angular), and limonite much more intense, also some fericcite. All pieces < 2.0 cm in size																	
131.98	142.79		DOSB	5A	CR	BX	VN		16	22	FR/0/60	FR/0/70	L1/BM/1	131.98	133.50	17777	0.60	0.07	
		-medium gray, weakly and patchily silicified, crackled and/or brecciated												133.50	134.50	17778	0.85	0.07	
		dolomite w/ dark grey chert frags ≤5%. Unit very similar to KODIAK B DOCH												134.50	135.50	17779	0.98	TR	
		lightly calcite veined @ various ∢ TCA, 1-3 mm veins, one every 5-30 cm.												135.50	136.50	17780	0.70	TR	
		Crackle and bx has a lightly to moderately limonite stained												136.50	137.50	17781	0.89	0.03	
		very calcareous matrix. Fracts common @ 60+70° TCA. Bx not												137.50	138.50	17782	0.90	0.14	
		noted. Strongly to intensely broken core @: 143.10 - 143.70												138.50	139.50	17783	0.95	0.07	
		141.11 - 142.79												139.50	140.30	17784	0.66	0.07	
														140.30	141.11	17785	0.38	TR	
														141.11	142.79	17786	0.36	0.03	
142.79	160.84		DOSB	5A	BX	CR	VN		14	24	FR/0/70		PY/DS/PP	142.79	144.16	17787	0.58	TR	
		medium to darkish grey matrix supported, weakly + patchily silicified,												144.16	145.16	17788	0.71	TR	
		dolomite breccia. Clasts 0.4.0 cm and variably rotated. Some												145.16	146.16	17789	0.80	TR	
		larger clasts are crackled. Matrix is only moderately calcareous,												146.16	147.16	17790	0.88	0.07	
		contains weak + erratic calcite veinlets to 2.0 mm wide. Fracts												147.16	148.16	17791	0.60	0.10	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95UG122

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
142.79	160.01													148.16	149.16	17792	0.80	TR	
CONT		common @ 70° TCA. Contains trace vfg pyrite. Core mod to												149.16	150.16	17793	1.07	TR	
		strongly broken from 142.79 - 145.79. Lower section is extremely												150.16	151.16	17794	0.94	TR	
		competent. Dark grey amorphous chert or very strongly silicified												151.16	152.16	17795	0.98	TR	
		dolomite clast from ± 5-10% of section ± locally more or less.												152.16	153.16	17796	1.01	TR	
														153.16	154.16	17797	1.04	TR	
														154.16	155.16	17798	1.00	0.07	
														155.16	156.16	17799	0.91	0.21	
														156.16	157.16	17800	0.93	TR	
														157.16	158.16	17801	1.00	TR	
														158.16	159.16	17802	0.96	0.07	
														159.16	160.01	17803	0.73	0.07	
160.01	160.82		DOSB	TA	BX				14	22	FR/0/70	VR/0/70	LI/BM/S	160.01	160.82	17804	0.61	TR	
		- medium grey, sub angular dolomite clasts (0.2-1.0 cm) in a																	
		strongly calcareous, limonitic matrix. Upper contact sharp																	
		@ 70° TCA. Clasts 60-70%, matrix 30-40%. Dol very weakly																	
		silicified																	
160.82	165.15		DOSB	TA	BX	VG			14	24	FR/0/50	FR/0/70	PY/CO/0.1	160.82	161.82	17805	0.67	0.10	
		- darkish grey, matrix supported, moderately silicified dolomite breccia.												161.82	162.82	17806	0.98	1.51	
		Lithic or chert component noted. Clasts 0.2-2.5 cm in size generally												162.82	163.82	17807	0.86	15.33	1.06
		rounded. Many vuggy cavities throughout. Fracts @ 50° + 70° TCA. Fg												163.82	164.82	17808	0.92	3.12	
		as dk grey gouge coatings on fracts/shearplanes in lower 1.0 m of sect.												164.82	165.15	17809	0.30	2.61	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
165.15	167.65		MFCA	RT	SH	GO			26	24	FR/0/40	SH/3/70	PY/DS/0.5
		-reddish tan to greenish tan colored, sheared and gouge, mod bleached mafic volcanic. Shearing @ 70° TCA throughout in gouge over 5-20cm widths along fractures @ 40° TCA. Contains 0.25-1.0 % disseminated pyrite (fg to med grained).											
167.65	168.45		LMST	TA	MS	CR			14	0	FR/0/70	CL/0/80	PY/VN/0.1
		-light grey, massive, crackled, limestone. Fracts @ 70° TCA. Lower contact strays @ 80° TCA. Several stylolitic fractures/contacts noted. These and fracture/shear planes are coated in a dark grey gouge containing fg to mg pyrite.											
168.45	180.75		MFCA	3R	FO	CR	VN	GO	14	12	FR/0/60	FO/1/50	
		dark red to greenish red, lightly altered mafic volcanics. Weakly to moderately foliated @ ~50° TCA. Fracts common @ 60° TCA. Weakly qtz-carb veined 1-3mm, one every 10-20cm. Trace hematite gouge on fractures.											
180.75	180.75		EOH										

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
165.15	166.40	17810	1.35	0.03	
166.40	167.65	17811	1.15	0.03	
167.65	168.45	17812	0.76	TR	
168.45	170.08	17813	0.15	TR	
170.08	171.08	17814	0.96	TR	
171.08	172.08	17815	0.75	TR	
172.08	173.08	17816	0.70	0.07	
173.08	174.08	17817	0.66	0.10	

GOLDEN BEAR OPERATING COMPANY

DATE: January 25/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hegr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16480	D.H. # 119	0.24				
81		0.07				
82		0.17				
83		TR				
84		TR				
85		0.14				
86		TR				
87		0.10				
88		0.10				
89		TR				
90		TR				
91		0.03				
92		TR				
93		TR				
94		0.14				
95		0.51				
96		0.14				
97		0.31				
98		0.24				
99	↓	0.10				
[redacted]7240	D.H. # 122	0.14				
41	↓	0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: January 26/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: A. Hep

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17242	DH. # 122	0.24				
43		0.51				
44		0.10				
45		0.86				
46		TR				
47		TR				
48		0.10				
49		0.17				
50		0.07				
51		0.21				
52		0.10				
53		0.14				
54		0.17				
55		0.55				
56		1.17				
57		1.54				
58		2.74				
59		1.23				
60		0.58				
61		2.09				
62		2.85				
63		2.88				

GOLDEN BEAR OPERATING COMPANY

DATE: January 28/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hoppe

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16685	D.H. # 120	TR				
86		0.14				
87		0.07				
88		TR				
89		TR				
90		0.07				
91		TR				
92		0.21				
93		TR				
94		0.10				
95	↓	0.16				
17764	D.H # 122	0.11				
65		0.10				
66		0.03				
67		TR				
68		0.07				
69		0.07				
70		TR				
71		0.03				
72		TR				
73		TR				
74		0.38				
75		0.07				
76	↓	0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: January 29/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hegan

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
10077	D.H. # 122	0.02				
78		0.02				
79		TR				
80		TR				
81		0.03				
82		0.14				
83		0.01				
84		0.07				
85		TR				
86		0.03				
87		TR				
88		TR				
89		TR				
90		0.02				
91		0.16				
92		TR				
93		TR				
94		TR				
95		TR				
96		TR				
97		TR				
98		0.02				
99		0.21				

GOLDEN BEAR OPERATING COMPANY

DATE: January 30/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: A. Hegr

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17800	D.H. # 122	TR				
01		TR				
02		0.02				
03		0.07				
04		TR				
05		0.10				
06		1.51				
07		15.33				1.06
08		3.12	6.35 / 5.73			
09		2.61				
10		0.03				
11		0.03				
12		TR				
13		TR				
14		TR				
15		TR				
16		0.07				
17		0.10				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: 12/01/95

PAGE 1 OF

DRILL HOLE # G95UG123 PROJECT AREA: GRIZZLY SECTION: 23900N

DRILL HOLE LOCATION DATA

EASTING: 25055.710

NORTHING: 23899.741

ELEVATION: 963.498

HOLE LENGTH (M): 119.48 m

DRILL DIARY

STARTING DATE: 08/01/95 (DD/MM/YYYY)

COMPLETION DATE: 11/01/95 (DD/MM/YYYY)

LOGGED BY: APH/JFB RIG: TRACTOR MASSEY-FERGUSON

CONTRACTOR: ADVANCED CORE SIZE: NQ

SURVEYED BY: GZ EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	272.361	-38.002	SURVEY
1	~~9.14~~	~~274~~	~~-38~~	~~SPERRY~~ → ← bad [illegible] to close proxi[illegible] of underground electrical f[illegible] on PC EXPLORE[illegible] used Az: 270.6[illegible] (average of re[illegible] above & below).
2	76.20	271	-42	SPERRY
3				
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0	3.05	CASE					
3.05	10.62	MFCA					
10.62	20.73	MFFL					
20.73	23.29	MFCA					
23.29	28.10	MFFL					
28.10	43.95	MFCA					
43.95	45.20	MFTF					
45.20	73.47	MFCA					
73.47	75.07	ARGI					
75.07	77.39	MFCA					
77.39	77.85	ARGI					
77.85	81.01	MFCA					
81.01	103.02	DOSB					
103.02	104.55	LOST	103.02 m HIT WATER				
104.55	116.74	DOSB					
116.74	117.80	BSDY					
117.80	119.48	GOUG					
			EOH = 119.48 m				

COMMENTS:
The hole was plugged at 50'. Water pressure was 200 psi and flow was 400 gal/min. The hole was abandoned after the rods snapped. 150 feet of rod + the core tube were left in the hole.

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G95UG123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0	3.05		CASE																
		- casing																	
3.05	10.62		MFLA	7G	MS	BN	AM	VN	12	22	BN/1/25	CD/0/80	PY/DS/0.5						
		- light green, massive, weakly altered mafic volcanic. Exhibits banding @ 20-30° TCA. Locally concentrations of what appear to be amygdules - filling is green sericite (?). Lightly to moderately calcite-dol veined @ 80° TCA + other angles. Contains < 1% disseminated py.																	
10.62	20.73		MFFL	4G	MS	PP	VN		0	0	CD/0/80	FR/0/60	PY/DS/0.1 // HE/VN/0.1						
		- darkish green massive, porphyritic mafic volcanic flow. Lightly to moderately qtz-carb and/or calcite-dol veined, 1-3mm wide @ 80° TCA. ± 50° of veins are stained by blood red hematite. Rock contains minor disseminated pyrite. ± 10% milky feldspar phenos to 2.0cm. Occ amyg																	
20.73	23.29		MFCA	6G	MS	VN			0	22	FR/0/30	VN/1/80	PY/DS/PP // HE/VN/0.1						
		- lightly altered mafic volcanic, probably MFFL. Massive texture. Strongly carbonate veined (dol? ank?), often @ 80° TCA, ank qtz veins to 3.0cm @ 30° TCA. Contains trace vfg diss py, less pervasive staining in carb veins.																	
23.29	28.10		MFFL	4G	MS	VN	PP		0	0	FR/0/85	FR/0/50	PY/DS/PP // HE/VN/0.1						
		- darkish green massive mafic volcanic flow. Moderately qtz carb veined, veins @ 80° TCA. Weakly feldspar porphyritic. Fuchsite common @ 80-85° + 50° TCA. Trace vfg diss py. Hematite																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
28.10	32.49		MFCA	7G	MS	PP	VN	GO	14	24	FR/0/30	SH/3/60	PY/DS/0.5						
		-weakly altered, light green, massive porphyritic mafic volcanic flow. Weakly qtz-carb veined, various ∡ TCA. Sheared in 2 places @60°TCA over 5-10cm w ≈5% gouge, surrounding fractures are talcy. Fracts @ 30+60°TCA. Contains trace to 1.0% diss py																	
32.49	43.95		MFCA	AG	BD	VN	GO		14	14	FR/0/40	QA/1/70	PY/DS/0.1						
		light greyish green, lightly altered bedded, mafic volcanic tuffs. Bedding somewhat variable but generally @ low ∡ TCA (<30°). Moderately qtz-carb veined 1.0-3.0mm @ 70-80°TCA + others. Section contains <0.5% fg dissem py.																	
43.95	45.20		MFTF	5G	MS	BD	VN		0	0	BD/0/40		PY/DS/PP	43.95	45.20	16101	1.13	0.10	
		-medium green, massive, bedded mafic volcanic tuff. Bedding @ 40°TCA. Possible trace vfg diss py. Weakly qtz-carb veined @ 80°TCA, 1 every 5-30 cm.																	
45.20	49.50		MFCA	5T	MS	BD			12	12	BD/0/50	FR/0/50	PY/DS/PP//HE/VN/0.1						
		-medium tan, massive, thin bedded, lightly to moderately altered volcanic tuffs. Bddg @ 50°TCA as are fracts/partings. Contains trace vfg dissem py. Minor hem along fracts/bddg planes.																	
49.50	50.67		MFCA	RG	MS	BD			0	12	BD/0/40			49.50	50.67	16102	0.96	0.07	
		-medium green and reddish green, massive, bedded volcanic tuffs. Only lightly altered. Bddg @ 40° TCA. No sx noted.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
50.67	57.92		MFCA	6T	BD	SK			0	24	BD/0/60	QC/1/	PY/DS/1 HE/VN/.2 MV/SP/.1 FU/SP/.1	50.67	51.67	16103	0.91	0.10	
		Light tan to green, fine bedded @ 55°-65° tca; Pervasively carbonatized; Occasional bright												51.67	52.67	16104	0.95	0.14	
		green mica bands; Occasional bright red hem bands along veins; local specs of green sericite; 2%												52.67	53.67	16105	0.88	0.17	
		stockwork of qtz + qtz/carb veinlets (1mm to 3 cm); 1-3% fine grained (<1-1mm) py as												53.67	54.67	16106	1.03	0.17	
		disseminations, stretched along bedding or in veinlets; original rock is fine												54.67	55.67	16107	0.67	0.07	
														55.67	56.67	16108	0.75	0.07	
		grained MFAS.												56.67	57.92	16109	1.08	0.24	
57.92	59.37		MFCA	5T	BD	SK	SH	BX	14	24	SH/3/	QC/0/	PY/DS/1	57.92	58.64	16110	0.68	0.07	
		med tannish-green, fine bedded, local brxx" & shearing; original rock = MFAS;												58.64	59.37	16111	0.56	0.10	
		Pervasively carbonatized; 2% qtz/carb stockwork (1mm-1cm); 1-2% diss^{ed} py (1-2mm)																	
59.37	60.85		MFCA	6T	BD	SK			0	24	BD/0/60	QC/1/	PY/DS/1 HE/VN/.2 MV/SP/.1 FU/SP/.1	59.37	60.11	16112	0.62	0.14	
		Same as interval: 50.67-57.92.												60.11	60.85	16113	0.55	0.07	
60.85	63.84		MFCA	4G	BD	SK			12	24	BD/0/40	BD/0/75	PY/DS/1 HE/VN/.5 MV/SP/.1	60.85	61.85	16114	0.97	0.07	
		Parkish green to tan, fine bedded @ variable angles (40°-75° tca). Bedding commonly has												61.85	62.85	16115	0.91	0.10	
		swirled/kinked (micro folds) appearance; original rock is fine grained MFAS; Pervasively												62.85	63.84	16116	0.94	0.07	
		carbonatized. 0.5% red hem along some frac^{s}. Occasional spots of green sereeite;																	
		Rare, minor thin shears; 2% py (1-2 mm) as disseminations & along frac^{s};																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 U6 123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
63.84	73.47		MFCA	6T	BD	SK			12	24	BD/0/60	QC/1/	PY/DS/1 MU/SP/.1 HE/VN/.2 FU/SP/.5	63.84	64.84	16117	0.93	0.03	
		Same as interval: 50.67 – 57.92; Bedding @ 60°-65° tca; Occasional minor shears.												64.84	65.84	16118	0.69	0.03	
		65.43 – 65.60: Intensely alt^{ed} band of MFCA ± much bright green mica @ 60° tca;												65.84	66.84	16119	0.77	0.03	
		Frac^{s} here contain many small qtz needles + small brown clear x/s												66.84	67.84	16120	0.96	0.03	
		of (fluorite?).												67.84	68.84	16121	0.85	0.14	
														68.84	69.84	16122	0.81	0.03	
														69.84	70.84	16123	0.92	0.07	
														70.84	71.84	16124	0.85	0.07	
														71.84	72.84	16125	0.80	0.07	
														72.84	73.47	16126	0.43	0.03	
73.47	75.07		ARGI	1N	BD	VN			0	22	VC/0/65	LC/0/50	PY/DS/2 FU/SP/.1	73.47	74.27	16127	0.24	0.21	
		Black & finely bedded ± occasional thin interbeds of MFCA; occasionally, bright												74.27	75.07	16128	0.76	0.10	
		green mica occurs in the MFCA interbeds; local minor sil^{ed} bands; Occasional thin QC																	
		stringers; 3-4% py (1-4mm): Diss^{ed}, blebs, along frac^{s} & in QC stringers;																	
		Upp^{r} ARGI contact @ 15 tca; lower ARGI contact @ 50 tca.																	
75.07	77.39		MFCA	5G	BP	MS			0	28	BD/0/60	QC/0/	PY/SP/5 FU/SP/1 MU/SP/.1	75.07	76.07	16129	1.01	0.07	
		med green, variable to whitish-grey, fine bedded to massive. Original rock probably												76.07	77.07	16130	0.92	0.03	
		MFEP; Pervasively carbonatized; Much bright green mica in bands; Occasional small												77.07	77.39	16131	0.26	Tr	
		remnant clasts alt^{ed} to ser; Occasional thin QC stringers; 5-10% py in large blebs,																	
		along frac^{s} & as disseminations.																	
77.39	77.85		ARGI	1N	BD	VN			12	—	VC/0/20	LC/0/60	PY/VN/2 FU/SP/.1	77.39	77.85	16132	0.47	0.07	
		Black ± fine wavy beds @ 30° tca; minor bright green mica bands; Minor																	
		thin shearing. Upp^{r} & low^{r} contacts are thin shears. Upp^{r} contact @ 20° tca.																	
		Lower contact @ 60° tca; Occasional qtz stringers; 3-5% py: Blebs, along																	
		frac^{s}, along stringers & diss^{eq}.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
77.85	79.78		MFCA	3T	BD	SH	BX		16	28	BD/0/55	SH/0/	PY/VN/5 / FV/DS/.1	77.85	78.82	16133	0.79	0.99	
		Darkish tan-grey, thin bedded to locally sheared & brxx^{ed}; Original rock = MFHS;												78.82	79.78	16134	0.72	0.21	
		Pervasively carbonatized. Rare bright green mica spec^{s}; Thin gougy shears here																	
		& there (3% overall); 10% py: along frac^{s}, as large blebs & small dissemination.																	
		Bedding varies from 45°-60° tca.																	
79.78	81.01		MFCA	3T	SH	BX	CR	BD	18	28	SH/0/	BD/0/	PY/VN/5 (MS/SP/.2 FV/DS/.1)	79.78	80.40	16135	0.59	0.17	
		Similar to interval 77.85-79.78 except that shearing & brxx^{n} more intense.												80.40	81.01	16136	0.47	0.14	
		20% of rock thinly sheared. Sericite spec^{s} common on lower 20 cm of																	
		interval.																	
81.01	103.02		DOSB	2N	BX	CR			28	18	SH/0/		PY/DS/.1 / CL/BN/1	81.01	82.01	16137	0.73	0.14	
		Dark black to grey, brxx^{ed} & crackled (50% each); Brxx is generally matrix supported												82.01	83.01	16138	0.88	0.03	
		w sub-rounded rotated clasts; Upp^{r} contact is ± 4 cm wide, highly pyritic shear @												83.01	84.01	16139	0.67	0.03	
		70° tca; Local patchy moderate sil^{n}. Locally, patches of brxx have limonitic matrix.												84.01	85.01	16140	0.82	0.03	
		Also, lim occurs locally on frac^{s}. Commonly, QC fills cracks. Core is highly fractured												85.01	86.01	16141	0.93	0.51	
														86.01	87.01	16142	0.49	0.10	
		Local minor shearing; Py is very rare as small specs.												87.01	88.01	16143	0.42	0.10	
		82.22 - 82.50 → patches of very limonitic DOSB.												88.01	89.01	16144	0.12	0.14	
		83.10 - 83.21												89.01	90.01	16145	0.17	0.07	
		88.30 - 90.00												90.01	91.01	16146	0.19	0.31	
		95.00 - 95.60												91.01	92.01	16147	0.12	0.24	
		99.80 - 99.97												92.01	93.01	16148	0.11	0.07	
														93.01	94.01	16149	0.09	0.10	
		88.30 - 103.02: Extremely fractured w several rubble/ground core zones.												94.01	95.01	16150	0.13	0.03	
														95.01	96.01	16151	0.48	0.17	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														96.01	97.01	16152	0.83	0.17	
														97.01	98.01	16153	0.70	0.17	
														98.01	99.01	16154	0.63	0.45	
														99.01	100.01	16155	0.57	0.72	
														100.01	101.01	16156	0.13	0.99	
														101.01	102.01	16157	0.22	1.17	
														102.01	103.02	16158	0.47	4.05	
103.02	104.55		LOST																
HIT WATER 200 psi & [illegible] g/l/min		Core was washed away by excessive water pressure.																	
104.55	107.60		DOSB	5U	BX	CR	SH		29	18	SH/0/		LI/BM/30	104.55	105.55	16159	0.38	2.95	
		Basically a very limonitic version of 81.01 – 103.02. The lim is mostly in the												105.55	106.55	16160	0.51	3.29	
		brxx matrix; 90% brxx vs 10% CR; No py seen.												106.55	107.60	16161	0.74	0.31	
107.60	116.74		DOSB	2N	BX	CR			29	18	SH/0/		PY/DS/.1 LI/BM/.1	107.60	108.60	16162	0.51	0.34	
		Same as interval: 81.01 – 103.02; Core is very highly fracᵉᵈ.												108.60	109.60	16163	0.55	0.27	
		110.64 – 111.00: Highly rubbled & limonitic core.												109.60	110.60	16164	0.17	0.21	
														110.60	111.60	16165	0.38	0.79	
														111.60	112.60	16166	0.56	0.89	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G 95 UG123

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														112.60	113.60	16167	0.63	0.21	
														113.60	114.60	16168	0.57	0.27	
														114.60	115.60	16169	0.46	0.27	
														115.60	116.74	16170	0.36	0.34	
116.74	117.80		BSDY	3N	PP	SH			16	–	SH/0/		CY/PV/80 cc/PV/10	116.74	117.80	16171	0.26	0.10	
		Porphyritic blackish-green; 10% white fsp phenos ($\frac{1}{2}$–2 mm); moderately sheared & pervasively alt'd to (clay?), & chlorite.																	
117.80	118.83		GOUG	3U	GO				29	–	SH/5/		4/60/80	117.80	118.83	16172	0.18	0.55	
		sandy dark brown, limonitic gouge; some small chips reveal that original rock may be bleached & sil'd carbonate, or bleached chert; This interval may be just reamed rock remnant as reaming was in progress here.																	
118.83	119.48		GOUG	1N	GO	PP			29	–	SH/5/		CY/60/80	118.83	119.48	16173	0.13	0.21	
		80% black clay gouge / 20% chips of black, pervasively clay alt'd fsp porphyritic basalt (BSDY as above).																	
		EOH = 119.48 m																	

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 11 95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16101	123	.10				
16102	"	.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 12/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16103	123	.10				
4		.14				
5		.17				
6		.17				
7		.07				
8		.07				
9		.24				
110		.07				
1		.10				
2		.14				
3		.07				
4		.07				
5		.10				
6		.07				
7		.03				
8		.03				
9		.03				
120		.03				
1		.14				
2		.03				
3		.07				
4		.07				
5		.07				
16126		.03				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 12/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16127	123	.21				
8		.10				
9		.07				
130		.03				
1		TR				
2		.07				
3		.99				
4		.21				
5		.17				
6		.14				
7		.14				
8		.03				
9		.03				
140		.03				
1		.51				
2		.10				
3		.10				
4		.14				
5		.07				
6		.31				
7		.24				
8		.07				
9		.10				
16150		.03				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN 12/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16151	123	.17				
2		.17				
16153		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JAN. 13/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16154	123	.46				
5		.72				
6		.99				
7		1.17				
8		4.05				
9		2.95				
160		3.29				
1		.31				
2		.34				
3		.27				
4		.21				
5		.79				
6		.89				
7		.21				
8		.27				
9		.27				
170		.34				
1		.10				
2	CU	.55				
16173	EOH	.4				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE: 1 OF

DRILL HOLE #: G95UG124 PROJECT AREA: GRIZZLY SECTION: 23850N

DRILL HOLE LOCATION DATA

EASTING: 25049.33
NORTHING: 23854.53
ELEVATION: 970.64
HOLE LENGTH (M): 180.74

DRILL DIARY

STARTING DATE: 28/01/95 (DD/MM/YYYY)
COMPLETION DATE: 03/02/95 (DD/MM/YYYY)
LOGGED BY: APH RIG: MASSEY-FERG
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: GZ EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	266.465	-46.36	SURVEY
1	45.11	269.50	-49.75	SPERRY
2	97.53	~~277.00~~	-52.00	SPERRY ← SUSPECT ?
3	174.64	268.00	-50.50	SPERRY
4				
5				

In pcx, used average of readings above & below.

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	4.66		MFCA	AT	MS	BD			18	24	BD/0/40	FR/0/75	PY/PT/1						
		greenish tan, massive, thin bedded volcanic tuffs, mod bleached and silicified. Bddg @ 90° TCA, fracts @ 75° TCA. Pyrite as patches to 1.0%. From 0.0 to 1.90m is very strongly broken and rubbly																	
4.66	5.69		BSDY	N	MS	AM			—	—	VC/0/70	LC/0/40							
		-massive, black basaltic dyke. ±1% 0.1-0.2cm white calcite amygdules. Upper contact @ 70° TCA, lower @ 90° TCA - both contacts show narrow chill margins. Wall rocks on either side altered for ± 20-90cm.																	
5.69	14.38		MFCA	TG	MS	BD	VN		14	12	BD/0/30	FR/0/70	PY/SP/0.1						
		- light green to slightly reddish green, massive bedded mafic tuffs (protolith: MFTF). Bddg @ 30° TCA, fracts @ 70° TCA. Pyrite locally as 0.2-0.3cm spots in more strongly alt sections (0.1%). Local qtz carb veins to 1.5cm various ∠TCA. 1-2mm veinlets of qtz carb throughout, one every 10-30cm @ 70° TCA.																	
14.38	21.13		MFCA	GR	VN	BD	GO		16	16	BD/0/40	FR/0/50	PY/SP/0.5 // HE/VN/1						
		-greenish red, moderately veined, bedded mafic volcanic tuffs. Veins 1-3mm often @ 70° TCA but variable. Hem assoc w veins ≤1%. Spots of mag py also assoc w veins ± 0.5%. Bddg @ 90° TCA, fracts common @ 50° TCA. Minor gouge on fract surfaces																	
21.13	22.97		MFCA	TG	MS	BD	VN		12	14	BD/0/60	FR/0/60	PY/03/0.1 // MU/PV/1						
		-light green thin bedded tuffs (possibly epiclastics). Well bedded @ 60° TCA, w fracts often // bddg. Strong, pervasive sericite. Lightly qtz-carb veined // bddg, 1-3mm, one every 10-90cm. Contains fg disseminated py 0.1%																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95U6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
22.97	25.45		MFCA	RG	MS	BD	VN		0	14	BD/0/35	FR/0/70	PY/DS/0.1 // HE/VN/0.5						
		-reddish green, massive, bedded mafic tuff. Bddg @ 35°TCA, fracts @ 70°TCA. Weakly qtz-carb veined, often ∥ bddg but also erratic 1-3mm one every 10-30cm. Contains fg dissem py 0.1%. Hem w̄ qtz carb veining ≤0.5%. Bddg disturbed in central portion of section.																	
25.45	30.11		MFTF	SG	MS	BD	VN		0	12	BD/0/30	FR/0/70							
		-medium green massive, bedded mafic ash tuff. Bddg @ 30°TCA, fracts @ 70°TCA. Very weakly qtz carb veined 1-2mm wide, one every 10-30cm often ∥ bddg.																	
30.11	32.72		MFCA	RT	VN	SH	GO		14	14	FR/0/40	SH/1/60	PY/DS/TR // HE/VN/0.5						
		-reddish tan, moderately altered and veined volcanic. Weakly sheared w̄ trace gouge @ 60°TCA. Calcite veins 0.3-2.0cm in width one every 10-50cm. often @ 60°TCA but variable. One 15cm coarse calcite vein 31.00-31.39. Trace fg diss py throughout. He along fracts 0.5%																	
32.72	34.74		MFTF	SG	BD	VN			0	0	BD/0/40	FR/0/60	PY/DS/0.1						
		-medium green massive bedded tuffs → coarser than usual → may be an xal tuff. Bddg @ 40°TCA, fracts @ 60°TCA. Contains trace 1mm euhedral py cubes ≤0.1%. Very weakly qtz-carb veined, various ∠TCA, 1-2mm wide, one every 15-30cm.																	
34.74	42.06		MFCA	7G	MS	VN			0	12	FR/0/40	FR/0/70	PY/VN/0.1 // HE/VN/0.5						
		-weakly altered, massive mafic volcanic. Protolith either an xal tuff or a flow. Fracts @ 40+70°TCA. Fracts often hem coated. Unit is weakly qtz-carb veined @ various ∠TCA, 1 every 10-50cm. Veins rarely contain trace fg pyrite.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95U6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
42.06	67.05		MFCA	AT	BD	VN	SH	GO	12	12	BD/0/55	FR/0/40	PY/PT/0.1 HE/VN/0.1 FU/SP/0.1 MU/PV/0.5	46.30	46.93	16696	.65	0.86	
		greyish tan to greenish tan colored weakly to moderately altered mafic																	
		volcanic tuff. Suspect that section proto was MFTF varying from																	
		very fine (epiclastic) to xal tuff. Now all weakly sericitized. Weakly												65.05	66.05	16697	0.98	TR	
		qtz-carb veined ≤70° TCA one every 10-50cm, 1-4mm wide. Locally												66.05	67.05	16698	1.02	0.03	
		sheared w gouge over width of <10cm in particular: 46.93m, 61.30m																	
		and several places from 66.45-67.05m. Bddg @ 55° TCA, fracts common																	
		@ 40-60° TCA. Locally minor apotly fuchsite. Py as patches 0.1%																	
		particularly strong @ 46.30-46.93 + 59.0-60.35 (brassy). Minor hem																	
		along fracts and with qtz-carb veins																	
67.05	71.46		PYTF	4A	SH	GO			24	24	FR/0/55 SH/2/55	LC/0/60	PY/PT/1	67.05	68.39	16699	0.85	0.07	
		darkish grey to greenish grey, pyritic, sheared and gougy mafic												68.39	69.46	16700	1.03	9.09 1.07	6.34 /2.07
		volcanics. Shearing as over widths of up to 20cm w ≤5-10% gouge. All												69.46	70.46	16701	1.00	3.39 1.00	
		fracts are gougy. Both shearing + fracts @ 65° TCA. Lower contact sharp @ 60° TCA.												70.46	71.46	16702	1.00	0.75	
		Pyrite as patches and wisps averaging 1.0-2.5% from fine to medium																	
		grained. Locally py is up to 10 or 15% and imparts a darker grey																	
		color to rock. Minor, sheared + contorted, graphitic arg @ 68.39-68.59																	
71.46	76.65		DOXB	3A	BX	VG			12	26	FR/0/70	LC/0/90	PY/DS/0.1 (in BM	71.46	72.46	16703	1.00	0.38	
		- very dark grey, strongly brecciated and moderately silicified, dolomite.												72.46	73.46	16704	0.97	0.21	
		Clasts 0.2-4.0cm in diameter (larger ones crackled), variably												73.46	74.46	16705	1.05	0.24	
		rotated, subrounded to angular. Breccia matrix is slightly												74.46	75.46	16706	0.90	0.10	
		lighter gray, weakly calc. and carries 0.1% fg diss py. Fracts @ 70° TCA												75.46	76.65	16707	1.20	0.17	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 69SU6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
76.65	90.65		DOSB	5A	BX	VG	CR		16	22	FR/0/70	FR/0/40	PY/DS/PP	76.65	77.65	16708	0.81	0.14	
		-medium grey brecciated and weakly silicified dolomite w large												77.65	78.65	16709	0.91	0.10	
HIGH H_2O		clasts, amorphous dark grey to black chert, ≈20% of unit. Similar to												78.65	79.65	16710	0.87	0.27	
@ 96.0m		Floce B DOCH. Dolomite clasts 0.2-1.5cm and rotated, chert clasts												79.65	80.65	16711	0.88	0.62	
		1.0-7.0cm, occasionally crackled. Weak or no reaction to HCl. Fracts												80.65	81.65	16712	1.01	0.45	
		common @ 70+40° TCA. Trace extremely fg. diss py. Core weakly to												81.65	82.65	16713	0.90	0.27	
		moderately broken.												82.65	83.65	16714	0.89	0.14	
														83.65	84.65	16715	0.71	TR	
														84.65	85.65	16716	0.99	TR	
														85.65	86.65	16717	0.90	0.07	
														86.65	87.65	16718	1.12	0.24	
														87.65	88.65	16719	0.65	0.03	
														88.65	89.65	16720	0.83	0.07	
														89.65	90.65	16721	0.56	0.27	
90.65	104.10		DOSB	5A	BX	VG	CR		16	22	FR/0/45	FR/0/35	PY/VN/0.1	90.65	91.65	16722	0.95	0.14	
		very similar to 76.65-90.65 except finer clast size and lower % of dark												91.65	92.65	16723	0.89	0.17	
		cherty clast. The breccia is weakly silicified, clasts from 0.1-1.5, chert												92.65	93.65	16724	1.01	0.24	
		1-2.0cm. Fracts @ 35+45° TCA. Breccia matrix weakly to moderately												93.65	94.65	16725	0.99	0.03	
		calcareous. Locally py as veins to 2.0cm, py 0.25-0.5% average												94.65	95.65	16726	0.80	0.03	
		overall (py higher: 100.65-102.65. Core is vuggy ≈ 1-2% of												95.65	96.65	16727	0.69	0.69	
		volume. 15cm of shearing w py and gouge @ base of section												96.65	97.65	16728	0.84	0.62	
		lower contact sharp @ 60° TCA.												97.65	98.65	16729	0.96	1.54	
														98.65	99.65	16730	0.95	0.72	
														99.65	100.65	16731	0.96	0.45	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95U6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														100.65	101.65	16732	1.00	1.13	
														101.65	102.65	16733	1.05	1.34	
														102.65	103.65	16734	0.96	0.75	
														103.65	104.10	16735	0.49	0.82	
104.10	126.18		MFCA	BT	BD	IB	SH	GO	14	24	BD/0/60	FR/0/60	PY/VN/1/MV/PY/2	104.10	105.10	16736	0.94	0.27	
		-only nominally a MFCA. Unit consists of variably altered, pyritized +												105.10	106.10	16737	0.98	0.45	
		interbedded thin bedded volcanic tuffs, argillites and cherts.												106.10	107.10	16738	0.93	TR	
		Beds or continuous stretches of single rock type up to 1.0m long												107.10	108.10	16739	0.98	TR	
		but interbeds of <30cm most common.												108.10	109.10	16740	1.00	TR	
		UNIT DESCRIPTIONS												109.10	110.10	16741	0.95	TR	
		MFCA - creamy tan to light grey vfg to mg tuffs thin bedded, strongly sericitic												110.10	111.10	16742	1.00	0.07	
		ARGI - black thin bedded argillite w/ phyllitic/graphitic												111.10	112.10	16743	1.02	TR	
		partings.												112.10	113.10	16744	0.93	TR	
		CHERT - white to light grey thin to medium (1.0cm) bedded cherts.												113.10	114.10	16745	0.97	TR	
		-all units are pyritized as veins + disseminations or along bedding												114.10	115.10	16746	1.01	0.10	
		average 0.5% but 2-3% locally.												115.10	116.10	16747	0.95	0.03	
		-bddg - 40-60° - but folding is evident - isoclinal to open												116.10	117.10	16748	0.96	TR	
		-fracture/fol/shyl part @ 40-60° TCA												117.10	118.10	16749	1.00	TR	
		-shearing generally @ 60° TCA w/ 5-10% gouge associated over widths												118.10	119.10	16750	1.05	0.07	
		of 2 - 40cm. Concentrated over intervals: 105.5-105.65												119.10	120.10	16751	0.85	0.10	
		106.20-106.70, 110.50-110.70, 118.7-118.8, 126.00-126.18												120.10	121.10	16752	1.05	TR	
		LITHOLOGIES PREDOMINATE: CHRT: 109.02-112.17												121.10	122.10	16753	1.00	0.07	
		ARGI: 118.60-121.31												122.10	123.10	16754	1.00	TR	
		-rest is MFCA dominant												123.10	124.10	16755	1.05	0.34	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95U6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	%S
														129.10	125.10	16756	0.95	0.21		
														125.10	126.18	16757	1.05	0.07		
126.18	133.50		MFCA	GA	MS	CR			12	26	FR/0/70	FR/0/45	PY/VN/1 // FU/SP/0.1	126.18	127.18	16758	0.95	0.03		
		medium to darkish, greenish grey, massive, crackled, strongly												127.18	128.18	16759	1.00	0.10		
		altered mafic volcanic. Texture under binocular scope												128.18	129.18	16760	1.00	TR		
		suggests a flow or xal tuff. Rock is competent w fracts @ 45+												129.18	130.18	16761	0.97	TR		
		75° TCA. Spotty fuchsite @ top of section. Py occurs as veinlets												130.18	131.18	16762	0.95	0.07		
		and fracture coatings, rarely as patches. Fine to medium												131.18	132.18	16763	1.00	0.10		
		grained ≈1-2.5% overall, strongest @ base of section. Rare												132.18	132.85	16764	0.65	0.27		
		qtz-carb veinlet to 2.0 mm wide. Weak or little reaction to HCl.												132.85	133.50	16765	0.64	0.17		
133.50	143.82		PYTF	2A	MS	SH	GO	VN	14	28	FR/0/30	FR/0/55	PY/VN/5 // PY/DS/1	133.50	134.50	16766	0.96	0.89		
		dark grey massive, pyritic volcanic tuff. Extremely vague												134.50	135.50	16767	0.95	0.14		
		texture suggest protoxal was an xal tuff or a flow. Lightly sheared												135.50	136.50	16768	1.02	0.14		
		w pyritic gouge over 1-5 cm widths, 1 every 10-70 cm, otherwise												136.50	137.50	16769	0.98	0.75		
		quite competent. Fracts common @ 30+55° TCA. Py as												137.50	138.50	16770	0.97	0.58		
		veins and patches ≈5% also as pervasive vfg disseminations												138.50	139.50	16771	1.00	5.76		7.05
		≈1.0%. Minor erratic calcite veining and vvg infill.												139.50	140.50	16772	0.98	3.15		
														140.50	141.50	16773	0.93	6.62		4.54
														141.50	142.50	16774	1.02	2.81		
														142.50	143.50	16775	1.04	8.54		4.31

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695UG124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERAUZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														142.50	143.82	16776	0.32	5.18	
143.82	145.39		GOUG	2A	SH	GO			28	28	SH/11/50	LC/0/60	PY/60/2	143.82	144.60	16777	0.75	1.68	
		dark grey argillic gouge containing ± 50% rounded to subang MFCA and carbonate fragments (from silicified to LMST). Sheared @ 50-60° TCA, lower contact sharp @ 60° TCA. Gouge appears to be ± 5% pyrite ± minor py veins in larger frags (0.2 - 10.0 cm).												144.60	145.39	16778	0.72	1.58	
145.39	146.25		MFCA	RT	SH	GO			26	18	VC/10/60	LC/0/175	PY/60/0.1 // HE/60/0.1	145.39	146.25	16779	0.87	0.10	
		reddish tan, sheared and gouxy strongly altered volcanic. Shearing @ 60° TCA in ± 3-5% of section being gouge which is hematite stained. Gouge contains minor py. Upper contact @ 60° TCA, lower @ 75° TCA.																	
146.25	146.44		DOLO	SA	BX	GO			18	18	LC/0/90		—	146.25	146.44	16780	0.18	0.07	
		- broken, medium grey, matrix supported brecciated dolomite. Clasts 0.2 - 1.0 cm, rotated, subang. Minor gouge on fract surfaces. Lower contact @ 90° TCA. Bx ox matrix. Breccia matrix is highly calcareous.																	
146.44	151.34		ARGI	N	BD	SH	GO		26	24	FR/0/50	LC/0/60	PY/03/1	146.44	147.44	16781	1.00	0.17	
		black to dark grey, moderately silicic, thin bedded argillites ± 5-10% IB MFCA and minor IB chert. Rock is contorted + folded. Fracts @ 50° TCA, lower contact knife sharp @ 60° (slip plane). Shearing ± 5% gouge over 1.0m. ± 1.0% fg py as disseminations. MFCA												147.44	148.44	16782	0.90	TR	
														148.44	149.44	16783	0.99	TR	
														149.44	150.44	16784	1.03	TR	
														150.44	151.34	16785	0.95	0.07	

95
5.38

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
151.34	155.85		MFFL	5G	MS	VN			12	0	FR/0/60	FR/0/40	NE/VN/0.1						
		-medium green, massive, basically unaltered, fg mafic flow. Very lightly qtz-carb veined. Fracts @ 40+60° TCA. Fracture surfaces are hematite																	
155.85	158.33		MFCA	7T	MS	CR	GO	VN	12	16	FR/0/40	LC/0/70	PY/DS/0.1//FU/SP/0.1						
		-light tan, massive, and lightly crackled bleached mafic volcanic. Fracts @ 40°TCA, lower contact shows @ 70°TCA. Trace gouge on fract surfaces, trace fg disseminated py. Minor qtz-carb veining.																	
158.33	161.12		MFFL	5G	MS	VN			14	0	FR/0/60		NE/CO/0.1//FU/PV/0.1						
		-medium green, massive mafic flow. Fracts @ 60° TCA in hematite coating. Moderately qtz carb veined. Various ∢TCA 1-3mm one every 5-20 cm. Slight bleaching in fuchsite over lower 1.0 m.																	
161.12	162.14		DOLO	5A	BX	SH	GO		14	14	FR/0/60	SH/1/60	PY/DS/PP	161.12	162.14	16786	0.90	0.03	
		-medium grey, brecciated dolomite. Clast variably rotated, 0.1 - 2.0 cm. Light shearing in trace gouge @ 60° TCA. Upper 20 cm of section is unalt limestone. Contains trace fg disseminated py																	
162.14	163.35		MFCA	7T	MS	BD			16	16	FR/0/40	BD/1/40	MV/PV/5.0						
		-light tan to light reddish tan, massive, locally bedded, mod bleached mafic volcanic. Bddg + fracts @ 40° TCA. Thoroughly sericitized. No py noted.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 6956124

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
163.35	165.86		DOLO	4A	MS	VN	CR		14	16	FR/0/45	LC/0/45		163.35	164.60	16787	1.33	TR	
		dark grey massive dolomite, probably primary. Generally cracked, often // to possible bedd @ ≈ 45° TCA. Thoroughly qtz-carb veined 1-2mm @ various x TCA. 1 every 1-5 cm. Fracts + lower contact @ 45° TCA No xx noted.												164.60	165.86	16788	1.28	0.10	
165.86	168.95		MFLA	RT	MS	VN	CR		12	12	FR/0/45	LC/0/50	HE/VN/0.1						
		reddish tan to tan massive weakly altered mafic volcanic. Qtz carb veined, often // to fract @ 45° TCA, 1 every 10-20cm. Fract @ 50° TCA lower contact @ 50° TCA. Vague crackle/fracture pattern. Hem on fracts ≤ 0.1%																	
168.95	171.08		DOLO	5A	MS	CR	VN	SH	16	14	FR/0/30	FR/0/60	PY/DS/0.1	168.95	169.01	16789	1.01	TR	
		- medium grey massive, crackled dolomite. No alteration noted. Weak qtz-carb veining @ various x TCA, one every 3-10 cm, 1-2mm wide. Fracts @ 30+60° TCA. 1 screen 10cm wide in gouge @ 170.17. Unit carries trace very fine grained pyrite.												169.01	171.08	16790	0.98	0.03	
171.08	176.51		MFLA	FT	MS	VN			14	19	FR/0/60	LC/0/90	MV/PY/5.0						
		- light tan very strongly bleached, massive mafic volcanic. Strongly + pervasively sericitized. Fracts @ 60° TCA. Moderately qtz-carb veined, 1-2mm wide, one every 5-15 cm. Lower contact sheared but sharp @ 90° TCA																	
176.51	180.74		MAFL	RG	MS	PP	VN		0	0	FR/0/60		HE/CO/0.1						
		- greenish red to reddish green massive, feldspar porphyritic mafic volcanic flow. 15-20°, 1-2mm feldspar phenos. Weakly qtz-carb veined @ 30+60° TCA. 1-3mm, one every 15-30cm. Hem on fracts + in veins ≤ 0.1%.																	

GOLDEN BEAR OPERATING COMPANY

DATE: February 2/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16696	D.H. # 124	0.86				
97		TR				
98		0.03				
99		0.07				
16700		9.09				3.92
01		3.39				
02		0.25				
03		0.38				
04		0.21				
05		0.24				
06		0.10				
07		0.12				
08		0.14				
09		0.10				
10	↓	0.27				
12818	D.H. # 125	0.65				
19		0.10				
20		TR				
21		0.03				
22		0.10				
23		0.24				
24		0.07				
25		0.31				
26	↓	0.96				

GOLDEN BEAR OPERATING COMPANY

DATE: February 4/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hegr

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16711	DH. #124	0.62				
12		0.45				
13		0.22				
14		0.14				
15		TR				
16		TR				
17		0.02				
18		0.24				
19		0.03				
20		0.02				
21		0.27				
22		0.14				
23		0.17				
24		0.24				
25		0.03				
26		0.03				
27		0.69				
28		0.62				
29		1.54				
30		0.72				
31		0.45				
32		1.13				
33		1.34				
34		0.25				

GOLDEN BEAR OPERATING COMPANY

DATE: February 4/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hay

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16735	D.H. # 124	0.82				
36		0.22				
37		0.45				
38		TR				
39		TR				
40		TR				
41		TR				
42		0.07				
43		TR				
44		TR				
45		TR				
46		0.10				
47		0.03				
48		TR				
49		TR				
50		0.07				
51		0.16				
52		TR				
53		0.07				
54		TR				
55		0.34				
56		0.21				
57		0.07				
58		0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: February 5/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Hogan

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16259	DH #124	0.10				
60		TR				
61		TR				
62		0.03				
63		0.10				
64		0.27				
65		0.17				
66		0.89				
67		0.14				
68		0.14				
69		0.25				
70		0.58				
71		5.26				2.05
72		3.15				
73		6.62		5.36	5.32 M	4.54
74		2.81				
75		8.54				4.31
76	.33	5.18				5.38
77		1.68				
78		1.58				
79		0.10				
80		0.02				
81		0.17				
82		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: February 5/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: H. Hear

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16283	D.H. # 124	TR				
84		TR				
85		0.02				
86		0.03				
87		TR				
88		0.10				
89		TR				
90		0.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # 6950G125 PROJECT AREA: GRIZZLY SECTION: 23650N

DRILL HOLE LOCATION DATA

EASTING: 25036.15
NORTHING: 23637.02
ELEVATION: 1005.63
HOLE LENGTH (M): 118.26

DRILL DIARY

STARTING DATE: 29/01/95 (DD/MM/YYYY)
COMPLETION DATE: 03/02/95 (DD/MM/YYYY)
LOGGED BY: APH RIG: INTERNATIONAL
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: GZ EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	276.428	-1.729	SURVEY
1	45.71	280.00	-1.75	SPERRY
2	117.34	290.00	-3.00	SPERRY
3				
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION, TEST CUB ZONE

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

CHECK LIST: ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH C95UG125

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	4.75		MFCA	4A	Bx				18	24	FR/0/70		PY/PT/1 // FU/SP/0.1	0	2.44	17818	0.45	0.65	
POSSIBLE CUB ZONE STRUCTURE IN THIS INTERVAL		- dark grey brecciated + contorted strongly altered volcanic tuff. Fragments												2.44	3.96	17819	0.20	0.10	
		variably rotated, not all of section is brecciated. Core very strongly												3.96	4.75	17820	0.55	TR	
		broken + rubbly, poor recovery. Pyrite occurs as patches and dissem																	
		averaging ≤1%, locally 3-5%. Locally spots of fuchsite.																	
4.75	11.95		MFCA	6R	MS	PP	VN		16	14	FR/0/50		PY/DS/0.1						
		- light red, massive, porphyritic, weakly veined, altered mafic volc.																	
		Texture suggests altered sp flow or xal tuff. Fracts common @ 50° TCA																	
		Qtz-carb veinlets, 2-3mm, @ 80° TCA. Carries trace mg diss py generally,																	
		up to 0.5% locally.																	
11.95	18.92		MFCA	7G	MS	PP	GO		16	12	FR/0/60		PY/VN/0.1 // FU/SP/0.5	17.92	18.92	17821	0.99	0.03	
		- light green massive, weakly to moderately altered mafic volcanic. Very																	
		vague sp text from fuchsite suggests flow or xal tuff. Fracts @ 60°																	
		TCA often in trace gouge. Occl qtz-carb veinlet. Trace to 0.5% locally py																	
		as veinlets - heaviest py in lower 1.0m.																	
18.92	23.53		MFCA	4A	MS	SH	GO		26	24	FR/0/40	LC/0/70	PY/VN/1.0	18.92	19.92	17822	0.83	0.10	
		Lightish grey, massive, sheared moderately to strongly altered mafic												19.92	20.92	17823	1.02	0.24	
		volcanic (proto flow or xal tuff). Sheared in 2-10% gouge from 19.70 - 20.37												20.92	21.92	17824	0.88	0.07	
		and 22.35 - 23.53. Fracts @ 40° TCA, Lower contact @ 70° TCA, shearing @ 40° TCA												21.92	22.92	17825	0.97	0.31	
		Fine to med grain py as veinlets ≤1.0%, 2-3% from 22.92 - 23.53.												22.92	23.53	17826	0.54	0.96	
23.53	24.94		DOXB	2A	Bx	VG			12	26	FR/0/60	LC/0/45	PY/DS/0.1	23.53	24.40	17827	0.60	0.10	
		dark grey brecciated and vuggy, strongly silicified dolomite. 0.1-5.0												24.40	24.94	17828	0.57	0.07	
		cm. with larger clasts crackled, smaller ones rotated in a siliceous																	
		matrix. Vugs ≤1-2% of volume. Fracts @ 60° TCA, lower contact sharp @																	
		45° TCA. Unit contains trace fg dissem py in Bx matrix.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
24.94	29.40		CHRT	AW	BD	CR	VG		14	24	FR/0/60	BD/1/15	PY/DS/0.5	24.94	25.94	17829	0.82	TR	
		- greyish white bedded, crackle textured chert. Bddg 0.1-0.5cm wide												25.94	26.94	17830	0.94	TR	
		and @ 15°TCA. Locally brecciated (top + bottom of section w/ jig saw												26.94	27.94	17831	0.68	0.10	
		bx). Fine pyrite along bddg planes and fracts 0.5%. Core slightly vuggy												27.94	28.94	17832	0.82	0.86	
		6.0% of volume. Fracs two common @ 15°TCA. Bddg planes slightly phyllitic/gouggy												28.94	29.40	17833	0.42	0.65	
29.40	37.29		CHSB	4A	BX	VG	CR		16	28	FR/0/60		PY/DS/0.1	29.40	30.40	17834	0.83	2.02	
		darkish grey, matrix supported, strongly silicified brecciated chert. Chert												30.40	31.40	17835	1.14	2.95	
		frags white to medium grey in color, often thinly bedded. Variably												31.40	32.40	17836	0.86	3.39	1.90/7.0m
		rotated from crackled to chaotic. Fragments angular, 0.1-10.0cm. Dark grey												32.40	33.40	17837	0.98	1.13	inc
		siliceous matrix carries ≈0.1-0.5% fine grained pyrite as dissem.												33.40	34.40	17838	0.60	0.86	2.79/3.0
		infill of open space not complete -> ≈ 2-4% open vugs w/ extremely												34.40	35.40	17839	0.84	1.30	
		fine euhedral. qtz xals.												35.40	36.40	17840	0.83	1.68	
														36.40	37.29	17841	0.64	0.72	
37.29	39.11		CHSB	W	BX	BD	VG		14	24	FR/0/60	LC/0/45	PY/DS/0.1	37.29	38.20	17842	0.91	0.07	
		white to very light grey, matrix supported chert breccia, weakly and												38.20	39.11	17843	0.95	0.10	
		patchily silicified. Clasts fully rotated 0.2-2.5cm and angular.																	
		generally massive, only rare bedding. Slightly vuggy. Fracts @ 60°TCA																	
		Lower contact @ 45°TCA. Matrix carries minor dissem pyrite.																	
39.11	51.65		CHXB	5A	BX	VG			18	26	FR/0/60		PY/BM/0.5	39.11	40.11	17844	1.01	1.17	
		light grey to white, massive to thin bedded brecciated chert in a												40.11	41.11	17845	0.96	0.82	
		siliceous matrix. Frags 0.5-10.cm in size, rotated, angular.												41.11	42.11	17846	1.02	1.95	
		Fracts @ 60°TCA. Pyrite as very fine dissem in siliceous												42.11	43.11	17847	0.83	1.61	
		matrix ≈ 0.5% - causes matrix to be a darker grey. Core extremely												43.11	44.11	17848	0.81	1.61	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
39.11	51.65													44.11	45.11	178.49	0.73	1.95	
CONT													1.52	45.11	46.63	17850	1.04	3.02	
													1.53	46.63	48.16	17851	0.94	2.23	2.37
													1.52	48.16	49.68	17852	0.82	2.19	
													1.53	49.68	51.21	17853	0.25	2.06	
[illegible]														51.21	51.65	17854	0.12	1.34	
51.65	51.84		DOSB	5A	BX	VG			12	22	—	—	PY/DS/0.1	51.65	51.84	17855	0.18	0.65	
		- medium grey matrix supported, very weakly silicified dolomite breccia Clasts 0.2 - 1.5 cm in size, subang + subrnd in a strongly calcareous light grey matrix. Trace vfg py in matrix.																	
51.84	52.03		BSDY	N	MS				0	0	UC/0/40	LC/0/50		51.84	52.03	17856	0.16	0.03	
		- black massive, fine grained basalt dyke. Upper + lower contacts @ 40+50° TCA respectively																	
52.03	53.02		DOSB	5A	BX				12	22	FR/0/50		PY/DS/0.1	52.03	53.02	17857	0.88	0.45	
		- same as 51.65-51.89. medium grey matrix supported very weakly silicified dolomite brxx. Clast 0.1-1.5 cm, subang + subrnd, parts @ 50° TCA. Very calcareous matrix carries trace vfg dissem [illegible].																	

1.518/6.0

2.37/6.1

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 69506125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
53.02	53.55		BSDY	N	MS				0	0	LC/0/45		—	53.02	53.55	17858	0.55	0.41	
		- massive, fine grained, black basalt. Lower contact @ 45° TCA upper contact irregular. Contains 1 rip up clast ≈ 10-12 cm of surrounding DOSB.																	
53.55	55.20		DOSB	5G	BX	GO			22	22	FR/0/60		PY/DS/0.1	53.55	54.55	17859	0.78	0.10	
		- medium grey, matrix supported, weakly silicified dolomite brxx. Clasts 0.2 - 2.0 cm + rotated ± a 5% dark grey amorphous chert component. Locally core strongly broken to minor gouge. Contains 1 10cm BSDY. Fracts @ 60° TCA. Calcareous breccia matrix carries trace py.												54.55	55.20	17860	0.46	0.93	
55.20	57.12		BSDY	N	MS	AM			0	0				55.20	56.20	17861	1.00	TR	
		- massive black fine grained basalt dyke. Central portion contains 5% calcite filled amygdules to 0.3 cm. Narrow chill margins. Top + bottom contacts irregular but generally fairly high ∠ TCA.												56.20	57.12	17862	0.75	TR	
57.12	61.87	FZ	DOSB	5G	MS	SH	GO		26	22	FR/0/60		PY/DS/0.1	57.12	57.30	17863	0.18	TR	
		similar to 53.55-55.20. medium gray, matrix supported, weakly silicic brxx. Clast 0.2 - 1.5 cm + rotated, minor dark chert. Sheared and gouge to minor broken basalt frags. Fracts @ 60° TCA, mod. calcareous brxx matrix carries trace vfg PY. Heavy core loss over entire interval. Broken + rubbly.												57.30	58.83	17864	0.46	0.07	
														58.83	60.35	17865	0.25	0.65	
														60.35	61.87	17866	0.17	0.07	
61.87	86.50		DOSB	5G	BX	VG			16	26	FR/0/60	FR/0/75	PY/DS/0.1	61.87	63.40	17867	0.29	1.03	
		medium to darkish grey, matrix supported, strongly silicified dolomite breccia. Clasts 0.1 - 4.0 cm and rotated. Larger frags tend to be dark grey cherts which forms ≈ 5% of section, locally 20%. Unit is vuggy 1-3% of volume. Fracts common @ 60+75° TCA. Dissem py												63.40	64.92	17868	0.60	0.99	
														64.92	65.92	17869	0.80	1.10	
														65.92	66.92	17870	0.75	1.37	
														66.92	67.92	17871	0.82	1.54	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 95UG125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
67.87	-86.50												
CONT													

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
67.92	68.92	17872	0.60	2.30	
68.92	69.92	17873	0.73	3.77	
69.92	71.02	17874	0.64	2.57	
71.02	72.54	17875	0.76	2.78	
72.54	74.07	17876	0.17	2.40	
74.07	75.59	17877	0.57	1.06	
75.59	76.59	17878	.080	1.41	
76.59	77.59	17879	0.90	1.23	
77.59	78.59	17880	0.50	1.03	
78.59	79.59	17881	0.64	1.10	
79.59	80.59	17882	0.63	0.86	
80.59	81.59	17883	0.74	0.55	
81.59	82.59	17884	0.81	1.51	
82.59	83.59	17885	1.05	0.93	
83.59	84.59	17886	0.95	1.47	
84.59	85.59	17887	0.98	2.13	
85.59	86.50	17888	0.90	2.91	

95

1.64/24.63

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
86.50	87.84		DOXB	2A	BX			·	14	24	FR/6/60	LC/0/75	PY/VN/2

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
86.50	87.20	17889	0.71	17.59	
87.20	87.84	17890	0.50	32.64	

1.74
2.19

- dark grey, brecciated, weakly silicified and carbonatized dolomite. Clast 0.1 - 2.0 cm, rotated and angular to subrounded. Fract @ 60° TCA. Lower contact sharp @ 75° TCA. Pyrite occurs as veins + blebs - averages 5%, locally 10%. fine to medium grained. Rock

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 95V6125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	%S
87.84	88.96		GOUG	N	GO	SH			29	29	SH/3/70	LC/0/60	PY/60/5	87.84	88.96	17891	1.10	10.94		2.96
		- black, completely sheared and gouge fault zone. Black gouge w white to grey carbonate fragments to 1.0cm very milled + rounded ≤10-15%, minor bleached MFTF frags. Shearing @ 70° TCA, lower contact @ 60° TCA. Estimate 5-10% vfg py in gouge. Good recovery!																		
88.96	91.90		MFCA	GT	SH	GO	MS		28	24	SH/3/40	LC/0/40	PY/PT/0.5	88.96	89.96	17892	0.90	0.10		
		- light greenish tan colored, strongly sheared, moderately altered mafic volcanic. Massive in texture when not sheared. Shearing @ 40° TCA as is lower contact (clays). Gouge ≤10% in intense areas as ≤5% over section. Py as fg to mg patches ≤ 0.5-1.0%.												89.96	90.96	17893	0.92	TR		
														90.96	91.90	17894	0.89	TR		
91.90	93.00		ARG	N	SH	GO	FO	PH	29	29	FO/0/60	LC/0/60	PY/DS/0.1	91.90	93.00	17895	0.95	0.17		
		- black, sheared argillites. Foliated @ 60° TCA, lower contact @ 60° TCA. Minor gouge but fol" surfaces @ phyllites. Trace disseminated py.																		
93.00	93.87		MFCA	GT	SH	GO			28	18	SH/3/40	LC/0/70	PY/DS/0.1	93.00	93.87	17896	0.83	TR		
		- light tan colored, very strongly sheared bleached volcanic. Shearing @ 40° TCA ≈ 3-5% gouge throughout. Lower contact sharp @ 70° TCA. Contain trace fg disseminated py.																		
93.87	100.21		DOSB	4A	BX	VG			18	24			PY/DS/0.1	93.87	95.40	17897	0.90	1.13		
		- darkish grey, matrix supported, moderately bleached dolomite breccia. Very strongly broken rubbly from 93.87 - 96.31m. Clasts 0.1 - 2.0cm, ≤5% dolomite frags, rotated, ≤1% open vugs. Silicification ↑ as you go down section. Trace disseminated py in matrix ↑ towards base.												95.40	96.31	17898	0.30	0.17		
														96.31	96.92	17899	0.65	TR		
														96.92	97.92	17900	0.80	TR		
														97.92	98.92	17901	0.65	0.07		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG125

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														98.92	99.92	17902	1.00	0.10	
														99.92	100.21	17903	0.32	0.41	
100.21	103.02	F2	GOUG	2A	GO	SH			29		SH/5/50	LC/0/60	PY/GO/1	100.21	101.21	17904	0.80	0.24	
		-generally dark grey to black, completely sheared + gouggy fault zone. Gouge												101.21	102.21	17905	0.90	0.41	
		contains frags of both DOSB and very bleached MFCA. to 5.0cm ranging												102.21	103.02	17906	0.70	0.27	
		from rounded to subangular. Dark grey gouge contains ≈ 1% vfg pyrite.																	
		Shearing @ 50° TCA - lower contact sharp @ 60° TCA. Frags ≈ 40% of section.																	
103.02	106.22	F2	MFCA	4W	MS	SH	GO		26	19	FR/0/40	SH/2/40	PY/VN/0.1	103.02	104.54	17907	0.30	TR	
		white to very light grey massive, totally bleached mafic volcanic												104.54	105.30	17908	0.60	0.10	
		(proto = flow?). Core strongly broken, sheared over 5-10cm widths w												105.30	106.22	17909	0.72	TR	
		strong gouge (80% of sheared material). Fracts + shearing @ 40° TCA. Pyrite																	
		as fine veins in more competent pieces ≈ 0.1% of interval.																	
106.22	118.26		MFCA	GR	MS	CR	V.N		12	12	FR/0/60		PY/DS/PP//HE/VN/1	106.22	107.22	17910	1.00	TR	
		-medium greenish red, massive, crackle textured, weakly												107.22	108.22	17911	1.05	TR	
		altered mafic volcanic flow. Weakly qtz carb veined @ various ∡ TCA.												108.22	109.22	17912	0.87	TR	
		Crackle texture is pervasive w crackle + fract surfaces being hem												109.22	110.22	17913	0.97	0.07	
		coated. Fracts common @ 60° TCA. Trace vfg py. disseminated																	
118.26	118.26		EOH																

GOLDEN BEAR OPERATING COMPANY

DATE: February 2/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: A. Hepp

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16696	D.H. # 124	0.86				
97		TR				
98		0.03				
99		0.07				
16700		9.09				3.92
01		3.39				
02		0.25				
03		0.38				
04		0.21				
05		0.24				
06		0.10				
07		0.17				
08		0.14				
09		0.10				
10		0.27				
12818	D.H. # 125	0.65				
19		0.10				
20		TR				
21		0.03				
22		0.10				
23		0.24				
24		0.07				
25		0.31				
26		0.96				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (Drill SAMPLES)
Underground

DATE: February 2/95

ASSAYER: M. Rep

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17827	D.H. # 125	0.10				
28		0.07				
29		TR				
30		TR				
31		0.10				
32		0.86				
33		0.65				
34		2.02				
35		2.95	1.90/7.0m			
36		3.39				
37		1.13				
38		0.86				
39		1.30				
40		1.68				
41		0.22				
42		0.07				
43		0.10				
44		1.17				
45		0.82				
46		1.95				
47		1.61				
48		1.61				
49		1.95				

GOLDEN BEAR OPERATING COMPANY

DATE: February 3/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: D. Hepp

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
12850	D.H. # 125	3.02				
51		2.23				
52		2.19		1.93	17.54 m	
53		2.06				
54		1.34				
55		0.65				
56		0.03				
57		0.45				
58		0.41				
59		0.10				
60		0.93				
61		TR				
62		TR				
63		TR				
64		0.09				
65		0.65				
66		0.07				
67		1.03				
68		0.99				
69		1.10				
70		1.37				
71		1.54				
72	1.0	2.30				
73	1.0	3.77				

GOLDEN BEAR OPERATING COMPANY

DATE: February 3/95

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: D. Hay

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17824	D.H. # 125	2.52				
25		2.28		1.54/14.03		
26		2.40				
27		1.06		2.3/6.15		
28		1.41				
29		1.23				
80		1.03				
81		1.10				
82		0.86				
83		0.55				
84		1.51				
85		0.93				
86		1.47				
87		2.13				
88		2.91				
89		17.59				1.74
90		32.64		13.78/2.46		3.19
91		10.94				2.96
92		0.10				
93		TR				
94		TR				
95		0.12				

GOLDEN BEAR OPERATING COMPANY

DATE: February 5/95

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: A. Hoar

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17896	D-H # 12.5	TR				
97		1.13				
98		0.17				
99		TR				
17900		TR				
01		0.02				
02		0.10				
03		0.41				
04		0.24				
05		0.41				
06		0.27				
07		TR				
08		0.10				
09		TR				
10		TR				
11		TR				
12		TR				
13		0.02				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # 695UG126 PROJECT AREA: GRIZZLY SECTION: 23850N

DRILL HOLE LOCATION DATA

EASTING: 25049.57
NORTHING: 23854.55
ELEVATION: 970.41
HOLE LENGTH (M): 189.89 m

DRILL DIARY

STARTING DATE: 03/02/1995 (DD/MM/YYYY)
COMPLETION DATE: 08/02/1995 (DD/MM/YYYY)
LOGGED BY: APH RIG: MASSEY-FERG
CONTRACTOR: AVANCED CORE SIZE: NQ
SURVEYED BY: GZ EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	264.748	-59.47	SURVEY
1	45.72	271.0°	-59.0°	SPERRY
2	106.68	(BAD READING) *	-61.1°	SPERRY
3	167.64	285.5° (BAD READING)	-61.0°	SPERRY
4	188.98	273.0°	-59.9°	SPERRY
5				

PURPOSE: GRIZZLY ZONE DEFINITION

* In pcx, used Az: 272.0°.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	4.80	MFCA		167.56	176.00	MFEP	
4.80	5.82	BSOY		176.00	179.25	ARGI	
5.82	20.97	MFCA		179.25	180.77	MFCA	
20.97	36.50	MFTF		180.77	182.79	LMST	
36.50	71.02	MFCA		182.79	188.24	MFCA	
71.02	71.52	CHRT		188.24	189.89	MFEP	
71.52	73.87	ARGI					
73.87	77.03	MFCA					
77.03	80.57	GRDI					EOH = 189.89
80.57	125.74	MFCA					
125.74	128.93	ARGI					
128.93	131.53	LMST					
131.53	133.09	ARGI					
133.09	134.84	LMST					
134.84	137.03	LIMBX					
137.03	146.62	CHXB					
146.62	148.37	DOXB					
148.37	148.87	DOSB					
148.87	156.60	CHXB					
156.60	160.32	MFCA					
160.32	163.95	MFEP					
163.95	167.56	ANDY					

COMMENTS:
Water @ approx. 150 psi & 200-300 gal/min.
Sent a grout plug to 550' which did not seal. We attempted to pump down cement but this flushed away. In order to attempt re-cementing, the grout plug will have to be drilled through. Hole is valved.

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.0	4.80		MFCA	AT	BD	BX	VN		18	24	FR/0/60	BD/1/45	PY/VN/0.5						
		greyish tan colored, thin bedded moderately alt volcanic tuffs. Bddg @ 45°TCA, fract @ 60°TCA. Weakly qtz-carb veined // bddg + other orient, 1-3mm, one every 5-30cm. Minor breccia in qtz carb matrix 2.60-2.90m. Pyrite as thin veinlets + fract coatings < 0.5%.																	
4.80	5.82		BSDY	N	MS	PP			0	0	VR/0/32	VR/0/60	—						
		- black to dark green, massive, mafic pheno porphyritic basalt. Upper contact @ 32°TCA, lower contact @ 60°TCA, both sharp.																	
5.82	12.48		MFCA	TG	MS	BD	VN		12	24	BD/0/30	FR/0/50	PY/VN/0.5 // MV/PVL						
		light tan/med green, massive thin bedded, moderately altered mafic tuffs. Bddg @ 30°TCA, fract 50°TCA. Weakly qtz-carb veined, often @ 50°TCA, 1-2mm wide, one every 10-50cm. Pyrite occurs as coarse clots in qtz-carb veins, minor elsewhere on fracts + in veinlets.																	
12.48	14.94		MFCA	RG	MS	PP			14	12	FR/0/40	BD/0/30							
		- weakly altered massive, feldspar "porphyritic" xal tuff. Vague bddg @ 30°TCA, fract @ 90°TCA. No zz noted																	
14.94	20.97		MFCA	RT	MS	BD	VN		12	14	BD/0/50	FR/0/60	PY/DS/0.1 // HE/CO/0.1						
		- reddish tan to greenish red, massive thin bedded, weakly carbonatized mafic tuffs, fine to medium grained, minor xal tuff. Bddg @ 50°TCA, fract common @ 60°TCA. Trace qtz diss py, hem coating on some fracts. Weakly veined // bddg 1-3mm, 1 every 10-90cm.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
20.97	36.50		MFTF	4G	MS	PP	BD	VN	14	12	FR/0/60	BD/1/40	PY/DS/0.1						
			-darkish green to greenish tan (bottom of section), unaltered to weakly altered eg mafic tuffs => XAL TUFF. Massive, ~ 1-3mm fldsps phenos, vague bedding @ 40°TCA. Alteration patches give appearance of larger (lapilli) clasts. Weakly qtz-carb veined @ various *TCA, one every 20-30cm. Fractures @60°TCA. Unit contains trace disseminated pyrite.																	
36.50	56.77		MFCA	TG	MS	BD	VN		0	12	FR/0/50	BD/0/60	PY/DS/.1//MV/VN/1.0						
			light tanish green to light greenish tan, massive, bedded weakly altered mafic tuffs. Mainly fine to mg tuffs ~ ocls narrow xal tuff section. Bddg @ 60°TCA, fracts @50°TCA. Weakly qtz carb veined, 0.5-1.5 mm, various *TCA, one every 5-30cm. Also pure translucent sericite veinlets, erratic orientation, 1 every 15-30 cm. Very minor trace of vfg py as disseminations.																	
56.77	61.42		MFCA	5T	MS	VN	SH	VG	14	24	FR/0/50	LC/0/60	PY/VN/2	56.77	57.77	17914	1.00	0.21	
			-medium tan colored massive to weakly bedded, moderately to strongly altered mafic volcanic, moderately veined, 0.5-1.0mm one every 2-10cm. Weakly sheared along fracts up to 1.0cm wide ~ minor gouge. Pyrite as veins to 1.5cm wide (2 only)											57.77	58.77	17915	0.95	0.14	
														58.77	59.77	17916	1.00	0.07	
														59.77	60.77	17917	0.98	0.24	
														60.77	61.42	17918	0.67	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95U6126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
61.42	71.02		MFCA	BG	MS	BD			12	12	BD/1/60	FR/0/60	PY/PT/0.5						
		- pale green to pale grayish green massive, thin bedded, weakly altered volcanic tuffs. Bddg @ 60°TCA, fractures also. Contains patchy py mineralization. Strong density from 65.12 - 65.70, patches from 70.25 - 71.02. ± 3-5% in both places, average < 0.5% for total.																	
71.02	71.52		CHRT	GG	BD	CHT			—	22	BD/0/40	VC/0/40	PY/VN/1	71.02	71.52	17919	0.51	0.31	
		- light grey to creamy white, laminated and thinly bedded chert in tuffaceous horizon. Bddg @ 40°TCA, upper contact @ 40°TCA and unconformable. Contains veins of py 0.5 - 2.0 mm wide and @ random & TCA ≤ 1% overall.																	
71.52	73.87		ARGI	N	BD	VN			12	14	BD/0/40	FR/0/40	PY/VN/0.5	71.52	72.70	17920	1.04	0.07	
		Dark grey to black, laminated & thin bedded argillite with minor tuff and cherty interbeds (0.1 - 2.5 cm wide). Weakly veined @ various & TCA. Fracts and bddg @ 90° TCA. Py as X-cutting veins + along fracts / bddg ≤ 0.5%.												72.70	73.87	17921	1.17	0.07	
73.87	77.03		MFCA	ST	BD	MS			14	26	BD/0/70	SH/0/30	PY/PT/1 HE/UN/.2 MU/UN/.5						
		Minor interbeds of ARGI; minor local crackle, brxx & shearing; original rock = MFMS; loc irregular qtz-veinlets (to 4 cm); Loc silᵉᵈ patches.												76.45	76.68	17922	0.20	0.41	
		76.45 - 76.68 : 15% patches of f.g.ᵉᵈ py.																	
77.03	80.57		GRDI	GT	PL				12	26	SH/0/20		PY/PT/2 HE/UN/.1 MU/SP/5						
		med grained, equigranular; Texture commonly washed out; local slivers of MFCA; Pervasively carbonatized; minor local thin shears; Remnant fsp's are altᵉᵈ to green sericite.																	
		79.56 - 80.57 : 10% patches of fine grained py.												79.56	80.57	17923	0.89	0.21	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 126

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL/HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
80.57	87.81		MFCA	6T	BD	SH			14	24	BD/0/50	SH/2/55	PY/PT/.5 FU/VN/.2 MU/VN/.2						
		minor black ARG1 interbeds; localized shearing & minor local brxx; original rock = MFTF; Patchy moderate sil^n; py occurs as f.g.^{ed} patches or disseminations; 2% irregular qtz bands (2-6 cm).																	
87.81	117.34		MFCA	TB	BD	BX			14	24	BD/0/55	SH/1/70	PY/PT/1 FU/VN/.1 MU/VN/.2						
		Interbedded MFCA (10%) & carbonaceous ARG1 (40%); Loc weak to moderate patches of sil^n; py is f.g.^{ed} & occurs as irreg. patches, along bedding & as diss^{ns}; minor loc rehealed matrix supported brxx (5% overall); loc minor shears; occasional irreg. veinlets & blobs of qtz.																	
117.34	125.74		MFCA	1A	MS				12	29	SH/0/20	SH/0/30	PY/PT/30 FU/VN/.1 MU/VN/.1	117.34	118.34	17924	0.92	1.27	
		Minor local thin shears; Py is f.g.^{ed} in patches → 30-35% of rock; 2 short GRD1 skylets present in this interval.												118.34	119.34	17925	0.83	3.29	
														119.34	120.34	17926	0.75	1.58	
														120.34	121.34	17927	0.80	0.82	
														121.34	122.34	17928	0.99	0.41	
														122.34	123.34	17929	0.83	0.51	
														123.34	124.34	17930	0.79	0.67	
														124.34	125.34	17931	0.88	1.20	
														125.34	125.74	17932	0.27	0.72	
125.74	128.93		ARG1	2N	BD	MS			14	0	BD/0/55	SH/0/60	PY/VN>PS/1.5	125.74	126.74	17933	0.87	0.34	
		2 short segments of white LMST present; The ARG1 is bedded & the LMST is massive; The ARG1 is carbonaceous; loc patches of sil^n (moderate); 1% thin QC stringers & occasional qtz blobs & veinlets (2-3 cm); No py in the LMST.												126.74	127.74	17934	0.94	0.21	
														127.74	128.93	18000	1.15	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	5 %
128.93	131.53		LmST	7W	MS				0	0			PY/DS/Tr							
		Thin stylolites common; Rare tiny specs of py.																		
131.53	133.09		ARGI	2N	BD				0	0	BD/0/55	QV/2/60	PY/BD/1	131.53	132.31	17936	0.67	.27		
		Patches of intense sil^{n};												132.31	133.09	17937	0.70	.07		
133.09	134.84		LMST	7W	MS	BX			12	0			PY/DS/.1	133.09	133.97	17938	0.80	.07		
		stylolites present; 1 thin (7 cm) re-healed matrix supported brxx ± some diss^{ed} py;												133.97	134.84	17939	0.78	.07		
		Brxx matix here is black.																		
134.84	137.03		LMBX	NW	BX	BN			26	28	BD/0/65		PY/DS/.5	134.84	135.84	17940	0.86	.07		
		70% of rock is re-healed angular matrix & clast supported brxx; Intense, patchy												135.84	137.03	17941	0.99	.10		
		sil^{n}; very minor loc shears; 1% thin (1-3 mm) Qc stringers.																		
137.03	146.62		CHXB	2N	CR	BX	BD	VG	26	29	SH/0/50		PY/BM/2	137.03	138.03	17942	0.82	4.05		
		50% crackled, 30% matrix supported re-healed angular brxx 20% bedded;												138.03	139.03	17943	0.81	6.27		0.9
		Most of rock is black but some sections ± white-grey angular frags occur;												139.03	140.03	17944	0.82	8.47		1.0
		Totally sil^{ed}; local minor shears; Py occurs in 2 forms: ① as extremely f.g.^{ed}												140.03	141.03	17945	0.96	10.39 / 10.83		1.2
		grey patches in brxx matrix & along frac^{s} (2-3% overall) ② as f.g.^{ed} "cuppery"												141.03	142.03	17946	0.97	38.26 / 39.81		1.2

3rd check assays

17951	77.93	g/t Au
17952	138.69	"
17953	71.42	"

LEGEND: original assay 134.74 / 142.89 check assay

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3

DDH 695 U6 126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
146.62	148.37		DOXB	1A	CR	BX			26	18	SH/0/60	UC/0/60	PY/BM/20
148.37	148.87		DOSB	NA	BX				28	28			PY/BM/1
148.87	156.60		CHXB	1N	CR	BX			24	29	LC/=/65		PY/BM/1 // HE/VN/.1

145.03 - 146.62 : extremely f.g.ed grey py in the brxx matrix & along frac's picks up to 5-10%.

70% crackle & 30% matrix & clast supported re-healed angular brxx; more sil'ed clasts; minor local shears; Py occurs in 2 forms: ① extremely f.g.ed grey patches in brxx matrix & along frac's (25% overall) ② f.g.ed "coppery" along frac's & diss'ed (0.5% overall).

Angular re-healed matrix supported multi-lithic brxx = black, grey, tan (MFCM) & white clasts in a black-grey matrix; most clasts + matrix strongly sil'ed.

Re-healed, 30% crackle brxx, 20% matrix supported angular brxx; 100% sil'ed; Calcite locally fills brxx matrix (2% overall); lower contact is a thin (4 cm) multilithic brxx & shear zone; Py generally extremely f.g.ed & grey.

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	5%
142.03	143.03	17947	086	20.78 / 21.15		1.1%
143.03	144.03	17948	0.92	37.41 / 37.85		1.3%
144.03	145.03	17949	0.96	31.85 / 32.09		1.2%
145.03	146.03	17950	0.92	36.45 / 36.21		1.9
146.03	146.62	17951	0.56	77.55 / 75.50		2.5
146.62	147.50	17952	0.78	134.74 / 142.89		7.9
147.50	148.37	17953	0.76	70.73 / 69.57		8.6
148.37	148.87	17954	0.54	33.29 / 33.29		2.7
148.87	149.87	17955	0.96	9.29		.6
149.87	150.87	17956	0.95	7.20		.6
150.87	151.87	17957	0.84	8.61		.9
151.87	152.87	17958	0.95	12.82 / 13.23		.5
152.87	153.87	17959	0.99	5.69		.3
153.87	154.87	17960	0.79	3.12		.2
154.87	155.87	17961	0.86	5.99		.5
155.87	156.60	17962	0.69	6.79		.8

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
156.60	160.32		MFCA	A T	BX	SH	CR	BD	28	24	SH/2/70	SH/2/45	PY/DS/VN/1 / HE/VN/.5 MU/VN/.5	156.60	157.60	17963	1.00	.29	
			Brxx (30%), shear (30%), crackle (7%), bedded (7%), massive (6%); Brxx is											157.60	158.60	17964	0.74	.19	
			only partially reconsolidated, sub-angular & matrix supported; rare patchy silⁿ; Hem											158.60	159.60	17965	0.80	.21	
			shows up intensely on fracˢ for the last 20 cm of interval; minor local QC											159.60	160.32	17966	0.64	.03	
			infillings. Py generally f.g.ed & cuppery but some extremely f.g.ed grey py occurs on fracˢ.																
160.32	163.95		MFEP	2G	BD				0	12	BD/0/75		HE/VN/1 / CL/PV/30						
			Pervasively carbonatized; minor interbands of tan MFCA; up to 1% thin (½-3mm)																
			QC stringers.																
163.95	167.56		ANOY	2G	PP				0	12	VC/0/60		HE/VN/1 / CL/PV/30						
			Large white fsp laths (5-10 mm) in an aphanitic green matrix; pervasively																
			carbonatized; Rare thin gtz or QC stringers (1-5 mm).																
167.56	176.00		MFEP	2G	BD	MS			0	12	BD/0/80		HE/VN/1 / CL/PV/30						
			Same as interval 160.32 - 163.95.																
176.00	179.25		ARGI	AG	BD				0	14	BD/0/60		PY/DS/TR / HE/VN/.1 FU/BD/2						
			Interbanded dark grey, green & tan; 2% thin QC stringers (1mm-1cm);																
			178.77-179.22: Intense green mica alt" along bedding;																
			The dark grey portions are ARGI (70% overall), the rest is MFCH.																

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6126

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
179.25	180.77		MFCM	3R	CR	BD			24	14	BD/0/65		HE/BM/20 / MU/SP/.1	179.25	180.01	17967	0.64	0.27	
		80% re-healed crackle brxx; 1% thin qc stringers.												180.01	180.77	17968	0.69	0.07	
180.77	182.79		LMST	8W	MS	CR			16	0			PY/DS/.1						
		stylolites common; minor local shearing.																	
182.79	188.24		MFCM	AT	BD	CR	MS		14	14	BD/0/50		PY/DS/.1 / PU/SP/.1 / HE/BM/5 / MU/UN/.2						
		MFCM (60%) w interbedded ARGI (40%); colour bands vary from dark gray to tan to red to green; local interbands of crackled, hematitic MFCM (as in 179.25–180.77); 2% qc stringers (1mm–1cm).																	
188.24	189.89		MFEP	2G	BD				0	12			HE/VN/1 / CL/PV/30						
		Same as interval: 160.32 – 163.95.																	
		EOH = 189.89 m																	

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 8, 1995

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: (1)

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17914	DH 126	.21				
5		.14				
6		.07				
7		.24				
17918		.07				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 9, 1995

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17919	DH126	.31				
920		.07				
1		.07				
17922		.41				
17936		.27				
7		.07				
8		.07				
9		.07				
940		.07				
1		.10				
2		4.05				
3		6.27				0.9
4		8.47				1.0
5		10.39				1.2
6		38.26				1.2
7		20.78				1.1
17948		37.41				1.3

695 U6 126

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 10, 1995

MINE ASSAY REPORT (D/D SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17949	695 U6 126	31.85				1.2
950		36.45				1.9
1		77.55				2.5
2		134.74				7.4
3		70.73				8.6
4		33.29				2.7
5		9.29				.6
6		7.20				.6
7		8.61				.4
8		12.82				.5
9		5.69				.3
960		3.12				.2
1		5.49				.5
2		6.79				.8
3		.24				
4		.14				
5		.21				
17966		.03				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 16, 1995

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17923	DH126	.21				
4		1.27				
5		3.29				
6		1.58				
7		.82				
8		.41				
17929		.51				
17967		.27				
17968		.07				
17930		.69				
1		1.20				
2		.72				
3		.34				
17934		.24				
18000		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 12, 1995

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: J.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
	"CHECK ASSAYS"					
17945	DH 126	10.83				
6		39.81				
7		21.15				
8		37.85				
9		32.09				
50		36.21				
1		77.93				
2		138.69				
3		71.42				
4		33.29				
17958		13.23				
16870	DH 127	11.35				
3		11.28				
4		13.30				
6		15.09				
7		23.07				
8		16.15				
9		29.35				
80		38.22				
16881		24.96				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # 695U6 12B PROJECT AREA: GRIZZLY SECTION: 23850 N

DRILL HOLE LOCATION DATA

EASTING: 25049.872
NORTHING: 23854.567
ELEVATION: 970.917
HOLE LENGTH (M): 215.80 m

DRILL DIARY

STARTING DATE: 09/02/1995 (DD/MM/YYYY)
COMPLETION DATE: 15/02/1995 (DD/MM/YYYY)
LOGGED BY: JFB RIG: MASSEY FERGUSON
CONTRACTOR: ADVANCED CORE SIZE: NQ / BQ
SURVEYED BY: PH EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	266.218	-68.541°	SURVEY
1	15.24	—	-68.0	ACID
2	45.72	—	-70.0	ACID
3	106.68	—	-69.0	ACID
4	157.89	—	-69.0	ACID
5	215.80	—	-69.0	ACID

PURPOSE: GRIZZLY ZONE DEFINITION.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	5.49	MFCA		183.25	189.81	MFCA	183.25m: reduced to BQ
5.49	6.33	BSDY		189.81	194.28	DOLO	
6.33	80.90	MFCA		194.28	204.86	MFCA	
80.90	81.94	ARGI		204.86	211.64	MFAS	
81.94	82.77	MFCA		211.64	215.80	MFCA	
82.77	87.02	GRDI					
87.02	118.45	MFCA					
118.45	143.58	MFFL					
143.58	150.42	LMST					
150.42	154.84	CHXB	154.32m				
154.84	157.10	CHRT					
157.10	158.56	CHXB	157.89m: High H2O Volume				
158.56	160.19	DOXB	ZONE				
160.19	164.86	CHXB					
164.86	167.11	MFCA					
167.11	169.17	CHXB					
169.17	171.74	MFCA					
171.74	178.91	LMBX					
178.91	181.03	PYTF					
181.03	181.65	DOSB					
181.65	182.27	MFCA					
182.27	183.25	GOUG	(SAND SEAM)				

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG 128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	5.49		MFCA	TA	BD				14	26	BD/0/55		PY/DS>BD/2 | FV/BD/.1 ; HE/VN/.1 | MV/VN/.1						
		Original rock = thin bedded ash tuff; Py is either diss'd or as concentrated bands along bedding; 1% thin (1mm-1cm) QC stringers.																	
		0.00 - 3.29 : Highly frac'd core w/ local thin, sereceitic shears.																	
5.49	6.33		BSDY	1N	PP				0	0	VC/1/55		PY/DS/.1						
		10% black (pyroxene?) phenocrysts in a black aphanitic groundmass; pervasively carbonatized; Rare thin (1-2 mm) QC stringers.																	
6.33	26.36		MFCA	7T	BD				12	24	BD/0/50	BD/0/70	PY/DS/.5 | FU/SP/. ; HE/BD>VN/2 | MV/VN/.						
		95% of rock was originally fine bedded MFAS w/ minor interbands of crystal rich or lapilli tuff; Py is either diss'd or as concentrated bands alng bedding												10.60	11.82	17969	1/11	0.24	
		10.60 - 11.82 : 10% py occurring in patches.																	
		Occasional thin sereceitic shears; 2% thin (1mm-2cm) QC stringers.																	
26.36	37.30		MFCA	RG	BD				0	14	BD/1/65	QC/1/20	PY/DS/.1 | FU/BD/.1 ; HE/BD/5 | CL/PV/2						
		70% reddish xl rich tuffs, 10% green lapilli tuffs, 10% green ash tuffs & 10% light tan ash tuffs; occasional rare blobs of py in addition to the disseminations; 1% thin QC stringers & rare thin qtz stringers.																	
37.30	44.49		MFCA	7T	BD				12	14	BD/0/70		PY/DS/.1 | FU/SP/.5 ; HE/VN/1 | MV/VN/.1						
		very similar to interval: 6.33 - 26.36.												43.83	44.35	17970	0.45	0.10	
		37.30 - 39.54 & 39.60 - 39.01 : Highly frac'd core.																	
		43.83 - 44.35 : Calcite brxx (re-healed)2 (70% calcite brxx matrix / 30% large angular MFCA frag's).																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG128

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
44.49	46.99		MFCA	3R	BD				0	12	BD/1/65		PY/DS/1.1 FU/PT/.1 HE/PV/30						
		Crystal tuff; Py occurrence is very patchy, most of interval is not pyritic.																	
46.99	80.90		MFCA	7T	BD				12	24	BD/0/70	SH/3/50	PY/DS/1 FU/BD/.5 HE/VN/1.5 HU/VN/.1						
		Very similar to interval: 6.33 – 26.36; Original rock is a mix of ash &												62.96	64.00	17971	0.95	0.17	
		fine lapilli tuff; Py occurrence very patchy; Occasional sericitic shears.												64.00	65.03	17972	0.97	0.31	
		62.96 – 65.03: 10% f.g.ed py in patches & along bedding.												65.03	65.68	17973	0.37	0.45	
		65.03 – 65.48: Sheared core @ 50° tca w 10% py patches.																	
														71.06	71.62	17974	0.48	0.10	
		71.06 – 71.62: 15% f.g.ed py in patches & along fracs.																	
		71.63 – 71.67: Ground core.												72.52	73.37	17975	0.72	0.07	
		71.67: CAVE																	
		72.52 – 73.37: 25% f.g.ed py in patches & along fracs.												78.04	78.39	17976	0.33	0.03	
		78.04 – 78.39: 10% f.g.ed py in patches & along fracs.																	
		1% qtz or QC stringers (1 mm – 2 cm), over entire interval.																	
80.90	81.94		ARGI	1N	BD	SH			14	12	BD/0/55	SH/3/45	PY/BD/1						
		Local moderate sil.ed patches;																	
		80.90 – 80.99: moderately sheared patch.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
81.94	82.77		MFCA	AG	BD				0	24	BD/0/60		CY/VN>QS/2 FU/PY/5 HE/VN/.1	81.94	82.77	17977	0.78	0.34	
		one 15 cm sil^{ed} patch present; py occurrence is patchy.																	
82.77	87.02		GRDI	GA	PL				12	26	SH/1/45		PY/PT/5 MU/RP/20 HE/SF>VN/2						
		medium grained, equigranular; Feldspars alt^{ed} to green sericite; local minor sil^{ed}																	
		patches; Rare thin wedges of MFCA which are accompanied by shears.																	
		82.77 – 85.43: Py content 2% overall.																	
		85.43 – 87.02: Py content 10% overall.												86.02	87.02	17978	0.95	0.65	
87.02	114.80		MFCA	AN	BD	SH	BX		14	26	BD/0/40	BD/0/70	PY/PT/2 MU/VN/2 FU/BD/.2	87.02	88.02	17979	0.93	0.51	
~		85% grey-tan MFCA + thin interbeds of HRGI (15% overall); local shears &												88.02	89.02	17980	0.89	0.51	
		brxx^{n} (10% of overall core); Intensely sil^{ed} patches (65% in total);												89.02	90.02	17981	0.85	0.51	
		Fg^{ed} "brassy" py occurs as follows: patches > along bedding > diss^{ed} > on fracs (3% overall).												90.02	91.02	17982	0.88	0.69	
														91.02	92.02	17983	0.78	0.38	
														92.02	93.02	17984	1.00	1.37	
														93.02	94.02	17985	0.91	0.24	
														94.02	95.02	17986	0.82	0.17	
														95.02	96.02	17987	0.84	0.10	
														96.02	97.02	17988	0.90	0.31	
														97.02	98.02	17989	0.82	0.24	
														98.02	99.02	17990	0.96	0.24	
														99.02	100.02	17991	0.91	0.31	
														100.02	101.02	17992	0.99	0.14	
														101.02	102.02	17993	0.88	0.21	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 U6128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
114.80	118.45		MFCA	TA	BD				12	24	BD/0/40	SH/2/60	PY/DS/1 / mu/CL/2 / CL/CL/2
		Original rock was ash to lapilli tuff; only 1 thin shear noted; small frag's are locally alt'ed to sericite or chl.											
118.45	130.10		MFFL	26	MS				0	12	qc/0/60	qc/2/35	PY/DS/.2 HF/DS/5 / FU/VN/.1 CL/PV/30
		Very f.g.'d to aphanitic w/ local bleached patches; Top of interval contains minor bedded MFCA interbands (only 5% of total interval); Pervasively carbonatized; 2-3% qc stringers (1 mm - 4 cm); Hem occurs as fine black specs throughout & also as red coatings along frac's.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
102.02	103.02	17994	0.87	0.45	
103.02	104.02	17995	0.89	0.07	
104.02	105.02	17996	0.94	0.03	
105.02	106.02	17997	0.85	0.07	
106.02	107.02	17998	0.96	0.10	
107.02	108.02	17999	0.98	0.14	
108.02	109.02	17001	0.93	0.14	
109.02	110.02	17002	0.82	0.07	
110.02	111.02	17003	0.79	0.24	
111.02	112.02	17004	0.74	0.10	
112.02	113.02	17005	0.82	0.27	
113.02	114.02	17006	0.65	0.41	
114.02	114.80	17007	0.67	0.03	
128.10	129.10	17008	0.96	0.34	
129.10	130.10	17009	0.94	0.41	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 VG 128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
130.10	135.87		MFFL	1A	MS				16	29	SH/0/60		PY/PT/30
		Highly pyritic & bleached version of the same MFFL in 118.45 – 130.10 ; A high density of re-healed fracs are present (almost to the point of being crackled in some places; Rare local thin shears ; occasional thin QC stringers ; Py is fg.ed., brassy & occurs as patches, dissemination & along fracs; Core pervasively carbonatized.											
135.87	137.58		MFFL	3A	MS				12	26			PY/DS/.5 | MU/RP/.5 ; HE/VN/.5
		A bleached version of interval: 118.45 – 130.10 ; Py generally diss^{ed}.											
		137.09 – 137.25 : Same as 130.10 – 135.87 (ie re-healed fracs ~ 25% py patches).											
137.58	140.93		MFFL	1A	MS				16	29	SH/0/40		PY/PT/30 | mv/VN/.5
		Same as 130.10 – 135.87 .											
140.93	143.58		MFFL	A6	MS	SH	BD		24	26	BD/0/70		PY/VN/5 | MU/VN/1 ; FU/SP/2
		most of unit is fg.ed to aphanitic & bleached; 143.07 – 143.58 : Bedded MFCM ~ patchy intense silⁿ ; Py mainly on fracs ; several shears which are irregularly shaped.											
143.58	150.42		LMST	NA	BD	SK	BX		14	0	BD/2/40	BD/2/70	PY/BD > DS/1
		Generally black, locally grey bedded LMST ~ local thin interbeds of AARG1 & chert ; chert & AARG1 is also black ; Patchy moderate to intense silⁿ ; Local bands of re-healed matrix supported, angular brxx ~ black AARG1 matrix ; 5-10% stockwork of calcite & QC stringers (1-5 mm) ; chert & AARG1 make up about 10% of total →											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
130.10	131.10	170 10	0.92	0.69	
131.10	132.10	170 11	0.90	1.23	
132.10	133.10	170 12	0.89	1.99	
133.10	134.10	170 13	0.92	1.89	
134.10	135.10	170 14	0.84	1.06	
135.10	135.87	170 15	0.79	0.21	
135.87	136.73	170 16	0.77	0.07	
136.73	137.58	170 17	0.78	0.07	
137.58	138.58	170 18	0.86	0.07	
138.58	139.58	170 19	0.84	0.45	
139.58	140.58	170 20	0.90	0.82	
140.58	140.93	170 21	0.24	0.31	
140.93	141.93	170 22	0.86	0.75	
141.93	142.93	170 23	1.03	0.51	
142.93	143.58	170 24	0.49	0.14	
143.58	144.58	170 25	0.81	0.69	
144.58	145.58	170 26	0.93	0.17	
145.58	146.58	170 27	0.85	0.14	
146.58	147.58	170 28	0.99	0.10	
147.58	148.58	170 29	0.80	0.24	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	S %
														148.58	149.58	17030	0.88	.31		
		→ interval.												149.58	150.42	17031	0.85	.41		
		144.17 - 144.26 : ground core.																		
		144.26 : CAVE.																		
		most of the py is f.g.ed & brassy (along bedding & diss'd) but some extremely f.g.ed grey py occurs along frac's (0.1% overall).																		
150.42	154.84		CHXB	1N	BD	SK	BX		16	29	BD/0/40	BD/0/60	PY/VN>DS/1	150.42	151.42	17032	.97	.45		
		Finely bedded black chert w minor interbands of sil'ed LMST (10%); Totally sil'ed.												151.42	152.42	17033	1.00	.51		
		Small intervals of matrix supported, re-healed angular brxx occur (15% overall);												152.42	153.42	17034	.94	.75		
		15-20% QC stockwork (½ mm - 1 cm); Py is either: ① f.g.ed, brassy & along												153.42	154.32	17035	.90	.69		
		frac's & diss'd (1%) ② extremely f.g.ed grey & along frac's (1%).												154.32	154.49	17036	.14	12.24 / 11.83		1.5
														154.49	154.84	17037	.36	5.21		0.6
		154.32 - 154.49 : Re-healed sub-rounded matrix dominant brxx w v.f.g.ed grey SX's in brxx matrix (35%).																		
		153.93 - 154.03 : Ground core.																		
		154.03 : CAVE.																		
154.84	157.10		CHRT	NA	CR	BD	MS	SH	24	28	80/2/55	SH/0/70	PY/VN/2	154.84	155.84	17038	1.04	5.25		0.2
		Intermixed grey & black; minor sil'ed LMST interbands; 80% re-healed crackle,												155.84	156.84	17039	1.02	9.81		0.7
		w local QC infillings; most of core totally sil'ed; Local shears (2%); Py is as												156.84	157.10	17040	.18	50.54 / 50.67		2.0
		follows: ① f.g.ed brassy & diss'd (0.5%) ② extremely f.g.ed grey on frac's (2-5%).																		
157.10	158.56		CHXB	1N	BX	CR	VG		26	29			PY/DM/5	157.10	157.83	17041	.69	42.99 / 42.69		1.3
		mainly black to locally grey matrix supported, re-healed sub-rounded brxx (50%) &												157.83	158.56	17042	.57	13.27 / 13.27		1.5
		re-healed crackle (50%); Core generally highly frac'd; Py is as follows: ① f.g.ed																		
		brassy (on frac's & diss'd) (0.5%) ② extremely f.g.ed grey in brxx matrix & on																		
		frac's (5-10%).																		

157.84 m High volume water

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t	S %
158.56	160.19		DOXB	3A	BX	CR	VG		2.6	28			PY/BM/5	158.56	159.38	170 93	0.64	13.06 / 13.41		.8
		Re-healed matrix & clast supported angular brxx (60%) & crackle (40%); most of core sil^{ed}; Py is as follows: ① f.g.^{ed} brassy (2%) - on frac^{s} & diss^{ed} ② extremely f.g.^{el} grey on frac^{s} & in brxx matrix (3-5%).												159.38	160.19	170 94	0.27	3.36		
160.19	164.86		CHXB	NA	BX	CR	BD	VG	26	28			PY/BM/5	160.19	161.19	17095	0.34	41.83 / 90.97		1.6
		Predominantly black w grey sections; 20% LMST sections intermixed w CHXB;												161.19	162.19	17096	0.50	7.20		.4
		40% matrix supported, re-healed sub-rounded brxx, 40% re-healed crackle, 20%												162.19	163.19	17097	0.83	9.15		.7
		bedded & massive rocks; 5% thin qc stockwork; minor local shears; Py the same												163.19	164.19	17098	1.00	13.30 / 13.82		.8
		as in: 157.10 - 158.56.												164.19	164.86	17099	0.69	12.96 / 13.03		.9
164.86	167.11		MFCA	2A	MS				26	28	VC/0/75	SH/0/30	PY/DS/20	164.86	165.86	17050	1.00	29.49 / 29.45		3.7
		F.g.^{ed} flow rock; moderately to heavily sheared, & locally brxx^{ed}; Py is f.g.^{ed} &												165.86	166.86	17051	1.00	15.81 / 15.87		4.2
		brassy as follows: diss^{ed} > patches > on frac^{s} (20% overall).												166.86	167.11	17052	0.29	109.61 / 108.48		5.9
167.11	169.17		CHXB	NA	BX	CR	SH		26	29	SH/2/30		PY/BM/5	167.11	168.14	17053	1.00	15.87 / 15.70		1.3
		Re-healed, matrix supported, sub-rounded brxx (80%) & crackle (20%); Local shearing;												168.14	169.17	17054	1.20	13.20 / 13.17		1.3
		Py is as in: 157.10 - 158.56.																		
		168.56 - 169.00: Core highly frac^{ed}.																		
169.17	171.74		MFCA	TN	SH	MS			29	24	VC/4/60	LG/3/40	PY/VN>DS(1) MO/VN/1 HE/VN/.5	169.17	170.17	17055	1.00	0.10		
		Mainly tan w black streaks & bands; strongly sheared.												170.17	171.17	17056	1.00	0.10		
														171.17	171.74	17057	0.63	0.07		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 06128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
171.74	176.11		LMBX	WA	CR	MS			24	22			PY/VN/.5
		90% crackled; local patches of intense sil^{n} (20% in all); stylolites present; py is extremely f.g.^{ed} & grey (locally on frac^{s}).											
176.11	178.91		LMBX	WA	CR	MS			24	22			PY/VN/.5
		Same rock as in 171.74 - 176.11 except that core is highly frac^{ed}.											
178.91	181.03		B.YTF	TN	SH	MS			28	28	UC/3/50	SH/3/70	PY/60/20 HE/VN/.5
		Highly sheared; 20% "rip up" clasts of LMST present; shears are black to black-grey & contain extremely f.g.^{ed} ground up py; The LMST frag^{s} have small local patches of sil^{n}; Most of the rock is MFCM (80%).											
181.03	181.65		DOSB	WM	MS	CR			16	28			PY/VN/2
		white & dark grey patches; Minor local shearing; Core highly frac^{ed}; Intensely sil^{ed}; Extremely f.g.^{ed} grey py locally on frac^{s}.											
181.65	182.27		MFCA	ZA	SH	MS			28	24	SH/3/60		PY/VN/1
		Intensely sheared; Py mainly brassy (diss^{ed} & on frac^{s}) but a small amount of extremely f.g.^{ed} grey py occurs on frac^{s} (0.1%).											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
171.74	172.74	17058	1.10	0.10	
172.74	173.74	17059	1.10	0.17	
173.74	174.74	17060	1.13	0.10	
174.74	175.74	17061	1.18	0.10	
175.74	176.11	17062	.90	0.14	
176.11	177.11	17063	1.10	0.07	
177.11	178.11	17064	1.20	0.17	
178.11	178.91	17065	1.30	0.10	
178.91	179.97	17066	1.20	-0.17	
179.97	181.03	17067	1.10	0.24	
181.03	181.65	17068	.70	0.17	
181.65	182.27	17069	0.43	0.14	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 95U6128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t	S %
182.27	183.25		GOUG	3A	?				29	?			PY/OS/1	182.27	183.25	17070	0.14	6.17		1.6
(SAND SEAM)		SAND SEAM; Fine dark grey sand; Colours noted under the microscope were: blackish-grey (10%), limonitic (10%), whitish-grey 80% + 1% brassy PY cubes; The sand fizzes intensely w HCl.																		
183.25	189.81		MFCM	4T	MS				14	24	FR/0/65	FR/0/40	PY/UN/2. HE/UN/5 FU/SP/2	183.25	184.25	17071	1.01	0.38		
(183.25 m: BQ core starts)		Moderate to high density of re-healed frac's (not enough to be considered crackle brxx, though); Rare local shears; Py is in 2 forms: ① f.g.ed brassy on												184.25	185.25	17072	0.85	0.10		
														185.25	186.25	17073	0.87	0.07		
		frac's & dissed (2%) ② extremely f.g.ed & grey on frac's (1%).												186.25	187.25	17074	0.91	0.10		
														187.25	188.25	17075	0.88	0.07		
														188.25	189.25	17076	0.93	-0.03		
														189.25	189.81	17077	0.51	0.07		
189.81	194.28		DOLO	8W	CR				24	14			PY/UN/2	189.81	190.81	17078	0.77	0.10		
		Partially dolomitized LMBX (in patches); Re-healed crackle brxx; Py occurs in 2												190.81	191.81	17079	0.53	0.07		
		forms: ① f.g.ed brassy on frac's (2-3%) ② f.g.ed on frac's (0.2%).												191.81	192.81	17080	0.56	0.03		
		193.81 - 194.28: Colouration becomes patchy (60% black-grey / 40% white).												192.81	193.81	17081	0.54	0.03		
														193.81	194.28	17082	0.35	0.21		
194.28	198.23		MFCM	TG	MS	SH	BX		26	24	UC/1/15	SH/3/60	PY/OS/1.2 HE/PT/1 FU/PT>VN/10 MU/VN/1	194.28	195.28	17083	0.77	0.07		
		Generally tan-green w red patches; 20% of rock is brxx'ed & sheared; The brxx												195.28	196.28	17084	0.74	0.03		
		matrix supported, sub-angular & partially re-healed; Upp^r contact is a shear;												196.28	197.28	17085	0.70	0.03		
		PY is brassy.												197.28	198.23	17086	0.91	0.03		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 U6 128

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL/HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
198.23	204.86		MFCA	PT	LM	MS	CR		14	24	FR/0/50	FR/0/40	PY/DS/.1 HE/VN/1 FV/PT/.5 MV/VN/1	198.23	199.23	17087	0.97	0.34	
		Re-healed crackle accounts for 10% of total rock; Rare local thin shears; 2-4% QC stringers (1mm - 1cm) & Occasional qtz veinlets (5cm); Py rare & patchy in occurance.																	
204.86	211.64		MFAS	2G	BD				0	0	BD/0/50	FR/0/40	PY/DS/.1 HE/VN/.5 CL/PV/30						
		Generally f.g.ed bedded & locally ~ small lapilli frags; Pervasively carbonatized; 2% thin QC stringers (1mm - 1cm).																	
211.64	215.80		MFCA	PT	CR	BD			24	22	FR/0/70	FR/0/50	PY/DS/.2 HE/VN/.2 MV/VV/.2						
		Colour variable dark purple to dark green to light tan; 80% re-healed crackle brxx ~ local minor re-healed matrix supported sub-angular brxx; Original rock is bedded tuff; 3% generally thin QC stringers (½ mm - 4 cm).												214.80	215.80	17088	1.00	0.10	
		EOH = 215.80 m																	

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 14, 1995

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: D

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17012	DH128	1.99				
3		1.89				
4		1.06				
5		.21				
6		.07				
7		.07				
8		.07				
9		.46				
020		.82				
1		.31				
2		.75				
3		.51				
4		.14				
5		.69				
6		.17				
7		.14				
8		.10				
9		.24				
030		.31				
1		.41				
2		.45				
3		.51				
4		.75				
17035		.69				

GOLDEN BEAR OPERATING COMPANY

DATE: Feb. 14, 1995

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: D.

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17036	DH128 154.32	12.24				1.5
7		5.21				.6
8		5.29				.2
9		9.81				.7
040		50.54				2.0
1		42.99				1.3
2		13.27				1.5
3		13.06				.8
4		3.36				
5		41.83				1.6
6		7.20				.4
7		9.15				.7
8		13.30				.8
9		12.96				.9
050		29.49				3.7
17051	166.86	15.81				4.2

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 15, 1995

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: (1)

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
	DH28 CHECK ASSAYS					
17036		11.83				
040		50.67				
41		42.69				
42		13.27				
43		13.41				
045		40.97				
048		13.82				
9		13.03				
050		29.45				
51		15.87				
2		108.48				
3		15.70				
17054		13.17				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 14, 1985

MINE ASSAY REPORT (Drill SAMPLES)

Underground

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17052	DH128	109.61				5.9
3		15.87				1.3
4		13.20				1.3
5		.10				
6		.10				
7		.07				
8		.10				
9		.17				
060		.10				
1		.10				
2		.14				
3		.07				
4		.17				
5		.10				
6		.17				
17067		.24				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB 16, 1995

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17068	DH 128	.17				
9		.14				
17070		6.17				1.6

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 17, 1995

ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17071	DH 128	.38				
2		.10				
3		.07				
4		.10				
5		.07				
6		.03				
7		.07				
8		.10				
9		.07				
080		.03				
1		.03				
2		.21				
3		.07				
4		.03				
5		.03				
6		.03				
7		.24				
17088		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 03, 1995

MINE ASSAY REPORT (Drill SAMPLES)

Underground

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17977	DH 128	.34				
8		.65				
9		.51				
980		.51				
1		.51				
2		.69				
3		.38				
4		1.37				
5		.24				
6		.17				
7		.10				
8		.31				
9		.24				
990		.24				
17991		.31				
17008		.34				
9		.41				
010		.69				
17011		1.23				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 13, 1995

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: S

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17969	Dft 128	.24				
970		.10				
1		.17				
2		.31				
3		.45				
4		.10				
5		.07				
17976		.03				
17992		.14				
3		.21				
4		.45				
5		.07				
6		.03				
7		.07				
8		.10				
17999		.14				
18001		.14				
2		.07				
3		.24				
4		.10				
5		.27				
6		.41				
18007		.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # 695 UG 129 PROJECT AREA: GRIZZLY SECTION: 24 000 N

DRILL HOLE LOCATION DATA

EASTING: 25068.274
NORTHING: 23949.285
ELEVATION: 957.399
HOLE LENGTH (M): 209.70 m

DRILL DIARY

STARTING DATE: 09/02/1995 (DD/MM/YYYY)
COMPLETION DATE: 14/02/1995 (DD/MM/YYYY)
LOGGED BY: DLC RIG: INTERNATIONAL
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: PH EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	289.755	-46.497	SURVEY
1	15.24	–	-47.0	ACID
2	53.34	–	-48.0	ACID
3	125.88	–	-51.0	ACID
4	180.75	–	-52.0	ACID
5	209.70	–	-52.0	ACID

PURPOSE: GRIZZLY ZONE DEFINITION.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	15.87	MFCA		136.55	151.79	DOSB	
15.87	16.94	MFFL		151.79	153.32	LOST	
16.94	28.38	MFCA		153.32	174.01	DOSB	
28.38	28.79	GOUG		174.01	178.96	MFCA	
28.79	36.12	MFCA		178.96	184.36	DOSB	
36.12	41.52	MFAS		184.36	185.10	LMBX	
41.52	58.30	MFCA		185.10	209.70	MFCA	
58.30	60.45	MFAS					
60.45	71.02	MFCA					
71.02	81.10	MFFP					
81.10	82.17	MFCA					
82.17	82.70	GOUG					
82.70	89.38	MFCA					
89.38	90.38	MFFL					
90.38	98.14	MFCA					
98.14	98.35	GOUG					
98.35	106.33	MFFL					
106.33	125.88	MFCA					
125.88	127.41	CHSB					
127.41	128.98	CHRT					
128.93	135.03	DOSB					
135.03	136.55	LOST					

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 694DH129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	15.87		MFCA	6N	BD	DS	PP		12	29	BD/0/30		FU/DS/15						
		STRONGLY ALTERED THROUGHOUT; PROMINANT BRIGHT GREEN FU DISS THROUGHOUT AS RANDS & DISS SPECKLES. TRACE PY AS EUHEDRAL BLEBS &/ SERICITE ON FRACTURE PLANES - BROKEN & RUBBLY CORE.																	
15.87	16.99		MFFL	5G	MS	PP	—	—	0	0	-	—	—						
		WHITE PORP OF 1-5mm FELDS? PORPH. = 20% OF SECTION IN DARK GREEN GROUNDMASS																	
16.99	28.38		MFCA	6G	BD	PP	MS	—	0	29	BD/065	BD/6/70	PY/DS/.1						
		MASSIVE PP VOLCANIC TUFF WITH FU PERVASIVE & STRGS TO 20% - THIN 1-3 cm SECTIONS OF ARG = 1% OF SECTION AS ASH TUFF INTERBEDS																	
28.38	28.79		GOUG	6A	60	CR	BX		29	29	—	—	—	28.38	28.79	16906	.33	0.07	
FAULT GOUGE		Clay = 50% Sand = 1% BXX = 49% MAFIL TUFF CLASTS.																	
28.79	36.12		MFCA	6A	BD				12	29	BD/1/90	BD/1/70							
		THIN BEDDED ASH TUFF - WELL LAMINATED THROUGHOUT TO 1-1.5 mm BEDS.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 694DH129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERAUZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
36.12	41.52		MFAS	5G	BD	VN			0	0	BD/0/65	BD/1/80							
		COMPETENT UNIFORM UNALTERED GREEN ASH TUFF - BEDDED THROUGHOUT																	
41.52	58.30		MFCA	5A	BD	—	—	-	0	14	BD/1/60	BD/1/40							
		THIN BEDDED ASH TUFF - CONSISTANT THRU CORE SECTION - @ 57.00 - 58.30																	
		THIN BEDDED ARGI & MFEP ALTERNATING WITH MFCA ASH TUFF																	
58.30	60.95		MFAS	5G	BD	LM			0	0	BD/55	BD/1/60							
		Lappilli tuff - thin bedded - unaltered																	
60.95	71.02		MFCA	6W	BD	LM	PP		12	19	BD/1/30	BD/1/45	FU/DS/1						
		Light grey/white protolith MFAS FU/as disseminations .1-1 mm																	
		Fractured - crumbly core w/ sericite on partings																	
71.02	81.10		MFEP	5G	BD	LM	—	-	0	0	BD-1-35	BD-1-20							
		mixed interbedded MFAS - (10%) AND GREY - DARK GREY M. F.G.R. EPICLASTICS																	
		to a banded alternating appearance (90%)																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 694DH129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV.	Au g/t	Ag g/t
81.00	82.17		MFCA	6T	BD	LM			12	19									
		Thin bedded ash tuffs altered to tan - minor argillite interbeds (5%)																	
82.17	82.70		GOUG	66	BX	QD	CR		26	26			PY//DS//5%	82.17	82.70	16807	0.48	0.41	
MFCA / FAULT - PY / MFCA.		Minor fault zone with MFCA BXX surrounded by GOUG GOUG contains 30% PY as fg dark grey sulfides - Zone is rehealed.																	
82.70	89.38		MFCA	6T	BD	LM			12	19	BD/2/60	BD/2/70							
		ASH MFCA ABOVE.																	
89.38	90.38		MFFL	56	MS	VN			6	0	—	—	—						
90.38	96.14		MFCA	6T	BD	LM	PA		12	19	—	—	—						
		Thin bedded m. F. GR. MFAS/FL with minor lapsilli																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH GP5UG29

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
98.14	98.35		GOUG	86	GO	BX	CR		24	26	VC/10/20	LC/11/70	PY/DS/.5	98.14	98.35	16908	0.19	1.44	
MFCA / FAULT / MFCA		20 cm fault zone - .1 - 2 cm BXX of MFCA w/ PY+GO MATRIX																	
98.35	106.33		MFFL	26	MS				0	12	QC/0/30	QC/0/60	PY/DS/.1 HE/VN/.5 CL/PV/30						
		Local bleached segments exist; Fine grained throughout; 1% thin (¼ - 3 mm) QC stringers.												102.34	102.98	16909	0.55	0.31	
		102.34 - 102.98: Bleached portion w large py patches (5% overall).																	
106.33	110.36		MFCA	7T	MS				12	24			PY/DS>VN/1 HE/VN/.5 FU/PT/.5						
		original rock = MFFL; Occasional thin shears; Locally pink zeolites occur on fracs;												107.98	108.21	16910	0.20	0.45	
		107.98 - 108.21: 20% f.g. ^od py (diss^od & on fracs).																	
110.36	111.28		MFCH	7A	MS				12	26			PY/PT/5	110.36	111.28	16911	0.69	0.31	
		Same rock as in 106.33 - 110.36; 10% py in patches.																	
111.28	112.18		MFCH	2A	MS	SH			26	28			PY/PT/30	111.28	112.18	16912	0.65	1.85	
~ ~ ~ ~		Same rock as in 106.33 - 110.36; 30 - 40 % py in patches; moderately sheared.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695VG129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
112.18	118.32		MFCA	7T	MS	BD			14	24	SH/2/60	BD/0/55	PY/PT >05/.2 / HE/PT/1 / FU/PT/.1 / MV/UN/.5						
		Original rock = MFAS; Local shears & thin bands of MAGI near top of interval																	
118.32	124.71		MFCA	3A	MS	BD			12	26	BD/0/30	SH/1/60	PY/PT/10	118.32	119.32	16913	0.83	2.37	
		Original rock is MFAS from 118.32 – 119.24, then the rest was originally MFFL;												119.32	120.32	16914	1.02	0.17	
		Occasional thin shears; Fig.ed brassy py occurs as patches > diss'ed > on fracs (10–15 %).												120.32	121.32	16915	0.96	0.24	
														121.32	122.32	16916	0.83	0.37	
														122.32	123.32	16917	0.84	0.24	
														123.32	124.32	16918	0.95	0.24	
														124.32	124.71	16919	0.37	1.65	
124.71	125.88		MFCA	5A	SH				28	26	VC/0/50		PY/PT/10	124.71	125.88	16920	0.81	0.99	
		Same rock type as 118.32 – 124.71 except that it is highly sheared.																	
125.88	127.41		CHSB	1N	BX	VG			28	29			PY/PS/.1	125.88	126.65	16921	0.12	0.79	
		Re-healed, strongly matrix dominant, subrounded brxx; Core highly broken & ground.												126.65	127.41	16922	0.11	1.03	
		Py is f.g.ed & brassy.																	
127.41	128.93		CHRT	RN	MS	CR	60	BX	26	28			HE/PT/20 / PY/PS/Tr / LI/PT/5	127.41	128.17	16923	0.14	1.82	
		Generally highly rubbled & ground core; Interval has a mix of different rock types with these general descriptions: (detailed description impossible due to the highly ground nature of the core).												128.17	128.93	16924	0.12	0.75	
		127.41 – 127.57: CHSB as in 125.88 – 127.41; rare diss'ed py.																	
		127.57 – 128.51: Red to grey crackled & massive CHRT ± 50% patches of																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
				128.51 – 128.83 : Black "clayey" gouge (sheared basalt dyke?).															
				128.83 – 128.93 : Pervasively limonitic CHRT (texture washed out) ± hem patches.															
128.93	133.50		DOSB	5A	CR				26	24			PY/DS/.1 / LI/VN/1	128.93	129.93	16925	0.22	1.92	
		Core is highly fractured & locally rubbled; local patches of intense sil^n; locally, lim occurs on frac^s.												129.93	130.93	16926	0.24	0.17	
														130.93	131.93	16927	0.27	0.45	
														131.93	132.93	16928	0.17	0.41	
														132.93	133.50	16929	0.10	0.45	
133.50	135.03		DOSB	7U	CR	BX			28	24			LI/PY/40 / HE/PT/5	133.50	134.27	16930	0.19	0.24	
		Pervasively limonitic re-healed crackle (80%) & non re-healed brxx (20%); local patches of intense sil^n.												134.27	135.03	16931	0.18	0.21	
		134.17 – 134.25 : Blackish-red completely alt^{ed} (soft & clayey) BSDY. 10% tiny white amygdules. The red is pervasive hem alt^n.																	
135.03	136.55		LOST																
136.55	137.82		DOSB	7U	CR	BX			28	24			LI/PT/20 / HE/PT/1	136.55	137.82	16932	0.51	0.31	
		Basically the same as interval: 133.50 – 135.03.																	
		137.17 – 137.25 : Black completely alt^{ed} (soft & clayed) BSDY. Upper contact ± DOSB @ 60° tca.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
137.82	151.79		DOSB	AW	CR	BX			24	26			PY/DS/.1 // LI/PT/1	137.82	138.82	16933	0.84	0.86	
		Re-healed crackle (90%) ± local sub intervals of matrix supported, re-healed, sub-angular brxx (10%); local intense sil^{ed} patches (50% overall).												138.82	139.82	16934	0.87	0.10	
														139.82	140.82	16935	0.92	0.07	
														140.82	141.82	16936	0.85	0.07	
														141.82	142.82	16937	0.99	0.07	
														142.82	143.82	16938	0.57	0.17	
		146.75 – 150.27 : Moderately frac^{ed} core.												143.82	144.82	16939	0.78	0.17	
		150.27 – 151.79 : Highly frac^{ed} core.												144.82	145.82	16940	0.76	0.31	
														145.82	146.82	16941	0.63	0.79	
														146.82	147.82	16942	0.71	0.41	
														147.82	148.82	16943	0.84	-0.79	
														148.82	149.82	16944	0.63	0.45	
														149.82	150.82	16945	0.37	0.89	
														150.82	151.79	16946	0.11	0.07	
151.79	153.32		LOST																
153.32	171.24		DOSB	AW	CR	BX			24	26			PY/DS/.1 // LI/PT/1	153.32	154.32	16947	0.28	0.10	
		Same as 137.82 – 151.79.												154.32	155.32	16948	0.15	0.14	
		155.17 : 5 cm wide completely alt^{ed} (soft & clayey) BSDY fragment.												155.32	156.32	16949	0.14	0.31	
		10% alt^{ed} fsp. pheno^{s} still visible ($\frac{1}{8}$ – 1 mm).												156.32	157.32	16950	0.81	0.21	
		157.69 : Several thin, random pyritic shears.												157.32	158.32	16951	0.63	0.21	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695UG129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														158.32	159.32	16952	0.33	0.69	
		153.32 – 155.60 : Highly frac^ed core.												159.32	160.32	16953	0.42	0.10	
		158.02 – 163.86 : Moderately frac^ed core.												160.32	161.32	16954	0.61	0.07	
														161.32	162.32	16955	0.66	0.27	
														162.32	163.32	16956	0.52	0.24	
														163.32	164.32	16957	0.63	1.41	
														164.32	165.32	16958	0.74	0.34	
														165.32	166.32	16959	0.88	0.17	
														166.32	167.32	16960	0.84	0.10	
														167.32	168.32	16961	0.86	0.07	
														168.32	169.32	16962	0.91	0.14	
														169.32	170.32	16963	0.90	0.10	
														170.32	171.24	16964	0.73	0.17	
171.24	174.01		DOSB	1N	BX	V6			28	26			PY/VN/.1	171.24	172.24	16965	0.65	0.14	
		90% re-healed, angular matrix supported, multilithic brxx; Frag^s are dark grey, light grey & black & all are sil^ed; Matrix is varinbly sil^ed & black; Py is rare & extremely f.g.^ed & grey.												172.24	173.24	16966	0.81	0.17	
														173.24	174.01	16967	0.76	1.30	
		171.60 – 171.65 : Ground pieces of grey-white DOSB as in 153.32 – 171.24.																	
174.01	178.96		MFCM	5T	SH	MS	BD		28	26	VC/2/50	LC/2/35	PY/PT/2 VN/VN/2	174.01	175.01	16968	0.92	0.21	
		Moderately to intensely sheared throughout; Bedding noted locally @ 60° tca; Brassy f.g. py occurs as patches > on frac^s > diss^ed.												175.01	176.01	16969	0.85	0.24	
														176.01	177.01	16970	0.88	0.14	
														177.01	178.01	16971	1.00	0.14	
														178.01	178.96	16972	0.89	0.69	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695U6129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL/HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
178.96	180.83		POSB	1N	BX	VG			28	26			PY/BM/1	178.96	179.90	16973	0.82	1.17	
		Basically the same as interval: 171.24 – 174.01												179.90	180.83	16974	0.74	1.39	
		Extremely f.g.ed py a little more common here (1% in brxx matrix & on frac's).																	
		One small wedge of grey-white POSB noted.																	
180.83	182.31		DOSB	AN	BX				28	22			PY/BM/1	180.83	181.57	16975	0.67	.75	
		Re-healed multilithic angular clast & matrix supported brxx; clasts are black, grey & white												181.57	182.31	16976	0.73	.17	
		& variably sil'ed; matrix is grey to black & non-sil'ed; occasional grey pyritic clasts																	
		noted; most py is extremely f.g.ed & grey in brxx matrix & on frac's; minor brassy																	
		diss'ed py.																	
182.31	184.36		DOSB	AW	BX	CR			26	19			PY/VN/.1	182.31	183.34	16977	0.91	.24	
		Re-healed matrix supported subrounded brxx (80%) & crackle (20%); non-sil'ed;												183.34	184.36	16978	0.92	.38	
		Py is brassy.																	
184.36	185.10		LMBX	NA	BX				28	12			PY/DS/.1	184.36	185.10	16979	0.67	.96	
		Re-healed angular multilithic brxx → matrix supported; most clasts & matrix fizz strongly;																	
		clasts are black, grey & white; matrix is black to grey; most py is f.g.ed & brassy																	
		but rare extremely f.g.ed py exists on frac's.																	
185.10	191.72		MFCA	TN	BX	SH	MS	BD	28	24	UC/2/75	SH/3/60	PY/DS/.5 HE/PT/2 FU/SP/.2 MU/VN/1	185.10	186.10	16980	0.94	.38	
		Colour variable tan, grey, green, orange, black; 30% non-rehealed brxx = soft												186.10	187.10	16981	0.88	.38	
		black matrix, 20% sheared rock, 50% massive & bedded rock (originally MFAS &												187.10	188.10	16982	0.73	.24	
		MFFL); most of py is brassy & diss'ed but rare extremely f.g.ed grey py occurs in Brxx												188.10	189.31	16983	0.95	.31	
		matrix or on frac's.												189.31	190.18	16984	0.76	.24	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6129

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														190.18	190.95	16985	0.78	.21	
		189.31 – 190.18 : Extremely brxx^{ed} & sheared.												190.95	191.72	16986	0.54	.34	
191.72	201.15		MFCA	TR	CR	MS	SH	BX	24	19			HE/NN/10 FU/SP/.2 MU/VN/2	191.72	192.72	16987	0.56	.21	
		80% crackle brxx w red hem. in the frac^{s}; local shears & non-reheal'd brxx (10% overall); original rock likely MFAS & MFTF; core moderately to highly frac^{ed}; No visible py.												192.72	193.72	16988	0.84	.29	
														200.15	201.15	16989	0.75	.17	
201.15	209.70		MFCA	BT	BD				12	24	BD/0/40	SH/0/10	PY/DSI.5 HE/VN/1 FU/SP/.1 MU/VN/1	201.15	202.15	16990	0.81	.21	
		Original rock = MFAS; occasional thin shears (rare).																	
		EOH = 209.70 m																	

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 16, 1995

ASSAYER: J

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16937	DH129	.07				
8		.17				
9		.17				
940		.31				
1		.79				
2		.41				
3		.79				
4		.45				
5		.89				
6		.07				
7		.10				
8		.14				
9		.31				
950		.21				
1		.21				
2		.69				
3		.10				
4		.07				
5		.27				
6		.24				
7		1.41				
8		.34				
9		.17				
16960		.19				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 16, 1995

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16961	DH 129	.07				
2		.14				
3		.10				
4		.17				
5		.14				
6		.17				
7		1.30				
8		.21				
9		.24				
970		.14				
1		.14				
2		.69				
3		1.17				
4		1.34				
5		.75				
6		.17				
7		.24				
8		.38				
9		.96				
16980		.38				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 16, 1995

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16981	~~DH~~ 129	.38				
2		.24				
3		.31				
4		.24				
5		.21				
6		.34				
7		.21				
8		.24				
9		.17				
16990		.21				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G95UG127 PROJECT AREA: GRIZZLY SECTION: 24000N

DRILL HOLE LOCATION DATA

EASTING: 25067.98
NORTHING: 23949.31
ELEVATION: 957.292
HOLE LENGTH (M): 211.23 m

DRILL DIARY

STARTING DATE: 05/02/1995 (DD/MM/YYYY)
COMPLETION DATE: 09/02/1995 (DD/MM/YYYY)
LOGGED BY: JAPH RIG: INTERNATIONAL 2149 L
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: GZ EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	287.202	-38.996°	SURVEY
1	45.72	294.0°	-40.0°	SPERRY
2	76.20	291.5°	-41.0°	SPERRY
3	106.68	294.0°	-99.8°	SPERRY
4	167.64	(BAD READING)	-43.6°	SPERRY
5	211.23	293.5°	-46.0°	SPERRY

PURPOSE: GRIZZLY ZONE DEFINITION

In PCX, used average of above & below reading (293.75°).

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	15.92	MFCA					
15.92	25.65	MFFL					
25.65	29.82	MFCA					
29.82	31.09	BSDY					
31.09	39.94	MFCA					
39.94	46.63	MFTF					
46.63	57.50	MFCA					
57.50	60.35	MFTF					
60.35	64.92	MFCA					
64.92	65.65	ARGI					
65.65	68.25	GRDI					
68.25	97.61	MFCA					
97.61	112.17	ARGI					
112.17	113.70	MFCA					
113.70	127.41	CHSB					
127.41	128.40	BSDY					
128.40	131.22	CHSB					
131.22	168.56	DOSB					
168.56	170.08	LOST					
170.08	170.96	DOSB					
170.96	183.80	CHSB					
183.80	211.23	MFCA					

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG 127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	3.90		MFCA	4W	MS	PP	GO		19	26	FR/0/60		PY/PT/2	0.0	3.90	16791	0.70	0.07	
		-very strongly broken and rubbly core. Greyish white, massive, with porphyritic textures (proto a MFFL). Very strongly bleached w ≈2-5% py as 0.2-0.4 cm patches. Trace gouge on fracts. Fracts @ 60° TCA.																	
3.90	5.06		MFCA	AG	BD	SH	GO	VN	18	14	LC/0/50	BD/0/40	PY/DS/0.1//FU/PY/5						
		-bright green w greyish streaks. Very strongly fuchsitic, bedded, altered volcanic tuff. Lower contact sheared @ 50° TCA, bddg @ 40° TCA. Unit is sheared w gouge over 1-2 cm widths, 1 every 10-30 cm. Mod qtz carb veined // bddg. Carries minor disseminated euhedral, brassy py.																	
5.06	15.92		MFCA	GA	MS	PP	VN	GO	16	14	FR/0/45		PY/VN/0.5						
		-light greenish grey, massive, porphyritic textured, moderately altered mafic volcanic (proto = xal tuff?). Xals/phenos ≈20%, 1-3 mm. Unit is lightly qtz-carb veined @ 60° TCA, 1-5 mm, 1 every 10-40 cm. Fracts @ 45° TCA. Py as veins and blebs ≈0.5%. Broken 11.40m-13.50m.																	
15.92	25.65		MFFL	4G	MS	PP	VN	SH	14	0	FR/0/30	FR/0/70	PY/DS/0.1//HE/CO/0.1						
		-darkish green, massive, porphyritic, mafic flow (possible xal tuff?) ≈20-25%, 1-3 mm white feldspar phenos. Lightly sheared over 3-5 cm in 2 or 3 places. Fracts @ 30+70° TCA. Minor hem on fracts, trace disseminated py. 23.77-25.65 - moderately alt w ≈0.5% diss py.																	
25.65	29.82		MFCA	7A	BD	SH	GO		26	24	BD/0/75	SH/2/80	PY/DS/1//FU/PY/0.5	27.82	28.82	16792	0.82	0.07	
		-light grey w greenish (fuchsitic) sections, thin bedded, strongly altered tuffs w minor IB ARGI (2 or 3, 5-15 cm beds). Bddg @ 75° TCA, mod sheared @ 80° TCA (preferentially in ARGI) with 10% gouge locally. Disseminated py ≈1% throughout. Spotty, pervasive fuchsite												28.82	29.82	16793	0.88	0.03	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G95UG127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
29.82	31.09		BSDY	N	MS	SH			0	26	LC/0/60		PY/DS/0.5	29.82	31.09	16794	1.20	0.10	
		-not a single dyke but a swarm of 6 narrow (<20cm) black fine grained, massive basalt dykes in a dark green, altered, sheared MFCA. Mfca contains ≤ 0.5-1.0% fg dissem py																	
31.09	39.94		MFCA	RT	BD	SH	GO	VN	16	12	BD/1/55	FR/0/55	PY/DS/0.1						
		reddish tan and light tan colored, thin bedded, fg to mg tuffs, lightly altered. Bddg @ 55°TCA as as prominent fracture. Sheared w minor gouge from 32.92-34.00m, strongly broken core from 37.00-38.2m. Very weak qtz carb-veining @ 60°TCA. Trace dissem py → vfg.																	
39.94	46.63		MFTF	SG	BD	MS	VN		0	0	BD/1/45	FR/0/65	PY/DS/TR//HE/CO/0.1						
		-medium to darkish green, massive bedded mafic volcanic tuffs. Grain size varies from silt mud to xal tuff (1-2mm phenos of feldspar), w 0.5-1.0m grain size predominant. Fracts @ 45+65°TCA, Bddg @ 45°TCA. Very weak qtz carb veining, 1-2mm, 1 every 10-30cm // bddg. Trace vfg diss py.																	
46.63	57.50		MFCA	RT	BD	MS	VN	SH	14	12	BD/0/35	FR/0/60 FR/0/35	PY/DS/0.1//HE/CO/0.1						
		-reddish tan to locally light greenish gray massive thin bedded mafic tuffs. Same as 39.94-46.63 just slightly alt. Ocal irreg qtz vein to 1.0cm, 30cm shear w trace gouge 54.00-54.30. Bddg most common @ 35°TCA but also to 45°TCA. Fracts prominent @ 35+60°TCA. Contains trace vfg dissem pyrite. Minor hem coating on fracts.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 6950G127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
57.50	60.35		MFTF	4G	MS	BD	VN		0	0	FR/0/50	BD/10/30	PY/DS/0.1						
		-darkish green, massive thin bedded, mafic volcanic tuffs. Fracture @ 50°TCA and bddg @ 30°TCA. Py as very fine disseminations throughout. Weakly qtz-carb veined, 0.5-1.0 mm wide, erratic orientations.																	
60.35	63.81		MFCA	ST	BD	MS	VN	GO	16	14	FR/0/60	BD/0/30	—						
		-medium tan colored, massive, bedded, weakly altered volcanic tuffs. Moderately qtz-carb veined, 1-2 mm, various ∠TCA. Unit has clasty interbeds increasing down section. Bddg @ 30°TCA, fracts @ 60°TCA. Minor gouge on fracts, no ss noted.																	
63.81	64.92		MFCA	TA	BD	MS	VN		12	14	BD/0/30	FR/0/30	PY/DS/0.1	63.81	64.92	16795	1.10	0.34	
		-tannish grey, thin bedded, Bddg and phyllitic partings @ 30°TCA. Contains trace to minor fine grained disseminated pyrite. Minor qtz carb veining @ random ∠TCA. Patchy, moderate sil°.																	
64.92	65.65		ARGI	2A	BD	SH	PH		24	14	BD/0/60	LC/0/75	PY/DS/0.5	64.92	65.65	16796	0.65	0.07	
		-dark grey, slightly clasty, sheared bedded argillites. Bddg + shearing @ 60°TCA w minor gouge. Phyllitic partings along bddg. Lower contact sheared @ 75°TCA. Unit contains fg to mg pyrite as disseminations ± 0.5-1.0%.																	
65.65	68.25		GRDI	AW	PL	BD			0		LC/1/50		PY/DS/.1 / HE/PT/2						
		Med grained, equigranular GRDI? Texture is very washed out; Greyish-white; 65.65-66.17: Fine bedded MFCA; Pervasively carbonatized; locally, original fsp's are alt'd to green sericite; Rock is very soft & appears to be pervasively clay alt'd. 10-15% f.g.ed pyroxene x/s present; Rare diss'd py in the GRDI but py more																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695UG127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
68.25	71.77		MFCM	GA	BD	PL			6	22	BD/1/40		PY/PT/.5 / HE/VN/.1 FU/BD/.1
		Original rock = MFTF; Pervasively chloritized; 3 intermixed med grained GRD1 dykelets which are pervasively chloritized & have sericitized fsp's; Py rare in the MFCM but as patches (1% overall) in the GRD1; GRD1 makes up 30% of the interval; < 1% thin qc stringers.											
71.77	76.61		MFCM	TA	BD	SK			0	26	BD/0/40	BD/0/30	PY/BD/.2 / HE/PT/.1 FU/PT/.2
		15% irregular qc stockwork & patches of qc; 2-3% py along bands; 71.77 - 72.11 : 5-10% f.g. ^d py in patches.											
76.61	97.61		MFCM	TN	BD				14	24	BD/0/40	SH/1/40	PY/DS/1 / FU/BD/1 MU/VN/.2
		Sequence of interbedded MFCM (75%) & ARG1 (25%); For the MFCM, original rock = MFTF & MFAS; Local patchy sil" in the MFCM; Local thin shears; ARG1 is pervasively carbonatized; Py is patchy from 0.5 - 5%; Patchy distribution of qtz & qc stringers (1% overall from 1mm - 5 cm); 93.76 - 94.03 : Coarse grained epiclastic sub-interval.											
97.61	112.17		ARG1	BT	BD				14	22	BD/0/60	SH/2/60	PY/DS/1 / MU/VN/.1
		Interbedded ARG1 & MFCM as in 76.61 - 97.61; ARG1 = 85%, MFCM = 15%. Rare, thin qc stringers.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
71.77	72.11	16797	0.25	0.24	
72.11	73.11	16798	0.77	0.03	
73.11	74.11	16799	1.01	0.03	
74.11	75.11	16800	0.97	0.10	
75.11	76.11	16806	0.72	0.07	
76.11	76.61	16807	0.41	0.17	
110.17	111.17	16808	0.99	0.41	
111.17	112.17	16809	0.75	1.23	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
112.17	113.70		MFCM	T N	B D	SH	MS		28	24	SH/1/40		PY/DS/1 MU/VN/2	112.17	112.94	16810	0.50	0.58	
		sheared & interbedded MFCM (75%) & MASI (25%); 30% of core is sheared.												112.94	113.70	16811	0.48	1.75	
113.70	127.41		CHSB	2 N	CR	BX			26	28			PY/DS/.1 // HE/PT/.1	113.70	114.70	16812	0.78	0.17	
		Crackled (75%) & re-healed, matrix supported sub-angular brxx (25%) → clasts rotated;												114.70	115.70	16813	0.84	0.21	
		Core very silicic; QC occurs in brxx matrix.												115.70	116.70	16814	0.77	0.21	
		127.28 – 127.41 : Pervasively hematitic.												116.70	117.70	16815	0.69	0.10	
														117.70	118.70	16816	0.83	0.03	
														118.70	119.70	16817	0.79	0.24	
														119.70	120.70	16818	0.43	0.14	
		122.83 m H2O hit @ 100 psi												120.70	121.70	16819	0.71	0.07	
														121.70	122.70	16820	0.79	0.07	
														122.70	123.70	16821	1.02	0.14	
														123.70	124.70	16822	0.91	0.14	
														124.70	125.70	16823	0.67	0.07	
														125.70	126.70	16824	0.64	0.10	
														126.70	127.41	16825	0.29	0.10	
127.41	128.40		BSDY	1 N	AM	PP			0	0	LC/1/55			127.41	128.40	16826	0.82	0.03	
		Rock is pervasively carbonatized; Amygdules are filled w calcite.																	

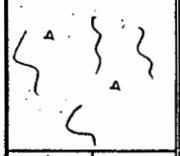
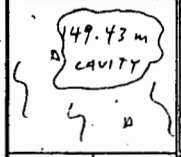
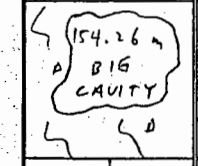
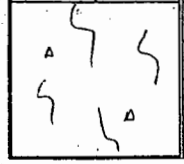
NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 695-V6127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
128.40	129.83		CHSB	8A	BX	CR			26	26			PY/DS/.1 LI/PT/.2 / HE/PT/.1	128.40	129.12	16900	0.64	1.82	
		Re-healed, matrix supported angular brxx w/ rotated clasts (80%) & crackle brxx (20%); chert clasts w/ QC brxx matrix.												129.12	129.83	16827	0.59	0.07	
		128.40 – 128.47 : Pervasive hematite.																	
		128.47 – 128.56 & 129.72 – 129.83 : Pervasive lim.																	
129.83	131.22		CHSB	6U	BX	SH			29	24			LI/PV/TR	129.83	130.52	16828	0.53	1.37	
		Core is strongly carbonatized.												130.52	131.22	16829	0.19	0.41	
		130.36 – 130.45 : Blackish-grey, completely clay alt'd basalt dykelet.																	
131.22	135.13		DOSB	NV	BX	CR	SH		28	26			PY/DS/.1 LI/BM/20 / HE/PT/.1	131.22	132.22	16830	0.45	0.31	
		Re-healed matrix supported brxx = 80%, crackle = 10%, shear = 10%.												132.22	133.22	16831	0.66	0.45	
		133.16 – 137.50 : Shear made up of 20% DOSB & 80% black, completely clay alt'd BSPY.												133.22	134.22	16832	0.64	0.45	
														134.22	135.13	16833	0.65	0.24	
135.13	136.26		DOSB	BW	CR	BX			24	19			LI/PT/.2	135.13	136.26	16834	0.87	0.41	
		Local minor intensely sil'd patches; 50% crackle / 50% matrix supported, re-healed, sub-rounded brxx.																	
136.26	139.65		DOSB	NW	BX	CR			26	16			PY/VN>DS/.2	136.26	137.26	16835	0.85	0.24	
		60% matrix supported, re-healed, angular brxx, 40% crackle; 90% of core is very int'ly sil'd.												137.26	138.26	16836	0.97	0.31	
														138.26	139.26	16837	0.86	0.21	
														139.26	139.65	16838	0.32	0.21	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
139.65	142.11		DOSB	BW	CR	BX			24	19				139.65	140.65	16839	0.82	0.10	
														140.65	141.65	16840	0.95	0.10	
														141.65	142.11	16841	0.41	0.07	
142.11	162.88		DOSB	AW	CR	BX	V6		26	26			pr/VN>DS/.5% LI/PT/.1	142.11	143.11	16842	0.81	0.14	
														143.11	144.11	16843	0.89	0.07	
														144.11	145.11	16844	0.97	0.03	
														145.11	146.11	16845	1.00	0.17	
														146.11	147.11	16846	0.94	0.07	
														147.11	148.11	16847	0.85	0.03	
														148.11	149.11	16848	0.84	0.14	
														149.11	150.11	16849	0.52	0.07	
														150.11	151.11	16850	0.90	0.14	
														151.11	152.11	16851	0.85	0.10	
														152.11	153.11	16852	0.83	0.14	
														153.11	154.11	16853	0.20	0.14	
														154.11	155.11	16854	0.78	0.38	
														155.11	156.11	16855	0.76	0.10	
														156.11	157.11	16856	0.79	0.17	
														157.11	158.11	16857	0.82	0.10	
														158.11	159.11	16858	0.84	0.03	
														159.11	160.11	16859	0.78	0.07	
														160.11	161.11	16860	0.86	0.17	
														161.11	162.11	16861	0.84	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														162.11	162.88	16862	0.52	0.21	
162.88	168.56		DOSB	AW	CR	BX	VG		26	26			PY/VN > DS/.5	162.88	163.88	16863	0.71	0.38	
		Same as interval 142.11 – 162.88 except that 50% of the core is highly fractured.												163.88	164.88	16864	0.50	0.82	
														164.88	165.88	16865	0.44	0.21	
														165.88	166.88	16866	0.37	0.10	
														166.88	167.88	16867	0.63	0.17	
														167.88	168.56	16868	0.54	0.27	
168.56	170.08		LOST																
BIG CAVITY		Apparantly a big cavity was hit here by the drillers.																	
170.08	170.96		DOSB	AW	CR	BX	VG		26	26			PY/VN > DS/.5	170.08	170.96	16869	0.35	0.17	
		Same as interval : 162.88 – 168.56.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 127

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t	S %
170.96	177.13		CHSB	1 N	BX	CR			26	29			PY/BM/.5	170.96	171.96	16870	0.44	11.45 / 11.35		0.8
		The brxx has 3 forms, all re-healed: ① Black crackled chert (40%) ② black matrix supported angular chert ③ multilithic, angular matrix supported brxx = black, grey & white frags; Brxx matrix fizzes slowly; All rock completely silicic; Local minor QC brxx infillings; Py generally extremely f.g.ed & grey.												171.96	172.96	16871	0.73	6.48		0.4
														172.96	173.96	16872	0.65	5.93		0.3
														173.96	174.96	16873	0.72	11.42 / 11.28		0.7
														174.96	175.96	16874	0.63	12.99 / 13.30		1.0
														175.96	177.13	16875	0.91	6.10		0.6
177.13	183.80		CHSB	A N	BX				28	28			PY/CL/2	177.13	178.13	16876	0.78	15.05 / 15.09		0.6
		Re-healed, strongly matrix dominant brxx. Clasts are sub-rounded black (gry?) chert, generally small (1/8–1/2 cm) & occasionally larger (1–2 cm). matrix dark grey & fizzes slowly. Matrix moderately to strongly sil.ed; several chert clasts contain extremely f.g.ed grey py (some up to 100%). In the brxx matrix, py is extremly rare.												178.13	179.13	16877	0.92	22.08 / 23.07		0.8
														179.13	180.13	16878	0.95	15.98 / 16.15		0.6
														180.13	181.13	16879	0.82	29.42 / 29.35		1.0
														181.13	182.13	16880	0.84	32.78 / 33.22		1.0
														182.13	183.13	16881	0.66	24.10 / 24.96		0.8
														183.13	183.80	16882	0.49	8.54		0.6
183.80	186.32	.	MFCM	T N	SH	BD			28	19	SH/3/40	SH/3/60	PY/DSI/1 HE/VN/1 MU/VN/1	183.80	184.80	16883	0.98	0.38		
		Generally tan but w black–grey AMG? interbands; Core generally very soft & crumbly; 60% of core is sheared.												184.80	185.80	16884	0.99	0.24		
														185.80	186.32	16885	0.45	0.14		

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695U6127

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
186.32	200.73		MFCA	TG	BD	MS	CR	SH	16	16	BD/0/60	SH/1/60	PY/DS/.1 HE/VN/1 MU/VN/5 FU/SP/.1	186.32	187.32	16886	0.99	0.31	
		Local interbeds of black-grey MAGI; local re-healed crackle zones; original rock												187.32	188.32	16887	0.81	0.07	
		is MFTF; chlorite common along fracs; local shears; 2% qtz (1mm-2cm) &												188.32	189.32	16888	0.73	0.14	
		QC (1-5mm) stringers. 186.32-187.97: Core more highly sheared & fraced here.												189.32	190.32	16889	0.76	0.10	
		186.32-189.74: 50% MAGI interbeds here; from 189.74 on, core is mainly MIFCH.												190.32	191.32	16890	0.99	0.41	
														191.32	192.32	16891	0.85	0.07	
														192.32	193.32	16892	0.87	0.10	
														193.32	194.32	16893	0.88	0.14	
														194.32	195.32	16894	0.85	0.14	
														195.32	196.32	16895	0.87	0.07	
														196.32	197.32	16896	0.93	0.10	
														197.32	198.32	16897	0.81	0.34	
														198.32	199.32	16898	0.80	0.10	
														199.32	200.32	16899	0.87	0.10	
														200.32	200.73	16901	0.30	0.14	
200.73	211.23		MFCA	TR	CR	SH			26	12			HE/BM/5 MU/VN/1 CL/VN/.1	200.73	201.73	16902	0.89	0.14	
		medium tan w red hem staining in the crackle fractures; 60% of the core												201.73	202.73	16903	0.81	0.07	
		is re-healed crackle brxx / 40% is highly fraced crackle brxx w thin shears.												202.73	203.73	16904	0.87	0.14	
														203.73	204.73	16905	0.79	0.07	
		EOH = 211.23 m																	

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 8, 1985

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16791	DH 127	.07				
2		.07				
3		.03				
4		.10				
5		.34				
6		.07				
7		.24				
8		.03				
9		.03				
16800		.10				
16806		.07				
16807		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB 14, 1995

MINE ASSAY REPORT (Drill SAMPLES)

ASSAYER: D.

Underground

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16812	DH 127	.17				
3		.21				
4		.21				
5		.10				
6		.03				
7		.24				
8		.14				
9		.07				
820		.07				
1		.14				
2		.14				
3		.07				
4		.10				
5		.10				
6		.03				
7		.07				
8		1.37				
9		.41				
16830		.31				
16900		1.82				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 10, 1995

ASSAYER: J.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16808	DH 127	.41				
9		1.23				
810		.58				
16811		1.75				
16831		.45				
2		.45				
3		.24				
4		.41				
5		.24				
6		.31				
7		.21				
8		.21				
9		.10				
840		.16				
1		.07				
2		.14				
3		.07				
4		.03				
5		.17				
6		.07				
16847		.03				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 12, 1986

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16848	DH127	.14				
9		.07				
850		.14				
1		.10				
2		.14				
3		.14				
4		.38				
5		.10				
6		.17				
7		.10				
8		.03				
9		.07				
860		.17				
1		.07				
2		.21				
3		.38				
4		.82				
5		.21				
6		.10				
16867		.17				

GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (D/D SAMPLES)

DATE: FEB. 10, 1993

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16868	DH 127	.27				
9		.17				
870		11.45				.8
1		6.48				.4
2		5.93				.3
3		11.42				.7
4		12.99				1.0
5		6.10				.6
6		15.05				.6
7		22.08				.8
8		15.98				.6
9		29.42				1.0
880		32.78				1.0
1		24.10				.8
2		8.54				.6
16883		.38				

GOLDEN BEAR OPERATING COMPANY

DATE: FEB. 12, 1995

MINE ASSAY REPORT (Drill SAMPLES)
Underground

ASSAYER: J

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
16884	DH 127	.24				
5		.14				
6		.31				
7		.07				
8		.14				
889		.10				
890		~~.41~~				
1		.07				
2		.10				
3		.14				
4		.14				
5		.07				
6		.10				
7		.34				
8		.10				
16899		.10				
16901		.14				
2		.14				
3		.07				
4		.14				
16905		.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: June 7 '95

PAGE 1 OF 1

DRILL HOLE: G95UG130 PROJECT AREA: Grizzly SECTION: 23800 N

DRILL HOLE LOCATION DATA

EASTING: 25048.102
NORTHING: 23800.489
ELEVATION: 977.165
HOLE LENGTH (M): 174.65

DRILL DIARY

STARTING DATE: 04/06/95 (DD/MM/YYYY)
COMPLETION DATE: 14/06/95 (DD/MM/YYYY)
LOGGED BY: Christine/APH RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: PH EDITED BY: APH

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	269.487	-58.175	SURVEY
1	60.96	274°	-59°	SPERRY
2	121.92	274°	-59°	SPERRY
3				
4				
5				

PURPOSE: testing southern extent of lower Grizzly zone

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	4.20	CASE		107.70	113.46	MFCA	
4.20	5.55	MFCA		113.46	116.81	CHRT	
5.55	12.32	MFCA		116.81	119.88	ARGI	w/ interbedded chert & MFCA
12.32	20.46	MFCA		119.88	124.36	ARGI	w/ interbedded MFCA
20.46	20.97	BSDY		124.36	131.39	MFCA	v. pyritized
20.97	21.90	MFCA		131.39	132.69	ARGI	w/ MFCA & MLBX
21.90	25.30	MFCA		132.69	133.64	MFCA	
25.30	25.35	BSDY		133.64	135.97	MFCA	
25.35	28.47	MFCA		135.97	138.40	DOSB	
28.47	41.35	MF TF		138.40	139.01	MFCA	
41.35	43.38	MFCA		139.01	139.77	LMGT	
43.38	46.63	MFCA		139.77	144.17	DOSB	
46.63	55.49	MFCA		144.17	145.70	LOST	
55.49	57.07	MFCA		145.70	146.10	GOUG	
57.07	61.60	MFCA		146.10	148.34	MFCA	
61.60	72.64	MFCA		148.34	148.74	GOUG	
72.64	76.60	MFCA		148.74	151.02	MFCA	
76.60	78.58	MFCA		151.02	151.98	DOSB	Fracture zone
78.58	82.33	MFCA		151.98	156.80	MFCA	
82.33	101.32	DOSB		156.80	174.65	MFAS	
101.32	107.25	MFCA					
107.25	107.70	DOSB					

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

C. McPhee
June 5 '95

c:\data\expl-geo\lithol.wk3

DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	cm RECOV	Au g/t	Ag g/t
0.00	4.20		CASE																
4.20	5.55		MFCA	7AT	CR	Bx	VN		26	24	LC/0/80		Py/PT+DS/3%						
			upper 10-15cm (no pyrite in this area) broken up, light grey altered volcanics w/ ~1% marcasite associated w veins + fractures, also ~3% paler green milky mineral in veins (very soft - can be peeled w/ a blade - does not fizz, slippery, talc like texture), crackled + brecciated (clasts supported) clasts predominantly light tan colour, matrix light to med grey. Pyrite occurs as fine grained, disseminated						4.20	5.00	17134	78	0.31	
			in matrix + in patches w/in matrix or w/in clasts, ~3%. At 5.0m ~5cm layer											5.00	5.55	17135	47	0.10	
			v. dark grey matrix supported breccia w/ some v. small clasts ~1mm, lower contact											5.55	7.00	17136	120	TR	
			of this 5cm kyanite an ~1cm grey gouge - soft + clay rich. Below this											7.00	8.49	17137	86	TR	
			to top of next unit pyrite decreases to <1%.																
5.55	12.32		MFCA	5T	FO	PP	VN		04	14	FO/0/50 QC/1/50	HE/VN/7%							
			MFCA w/ 'porphyritic texture' in upper 1.5m w/ increasing foliations observed											8.49	9.43	17138	90	TR	
			foliations are hematite stained + occur at 50° - 60° to core axis, 30%											9.43	10.11	17139	165	0.31	
			foliated), foliations concentrated from 8.5m + 10.0m; porphyrys are mostly											10.11	11.12	17140	97	0.03	
			v. pale milky green colour, v. soft + do not fizz (same as pale green alteration noted											11.12	12.32	17141	114	0.07	
			above), Quartz calcite veins occur 3-5mm thick at ~50° to core axis.																
			at 9.75m there is an ~10cm zone strongly hematite altered, ~2cm																
			vein of >90% hematite w/ a zone of strong alteration below it. Veinlets through																

C. McPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	cm RECOV	Au g/t	Ag g/t
12.32	20.46		MFCA	5T	MS	VN			04	14			HE/VN:ST/5%	12.32	13.28	17142	86	0.17	
		bleached & veined MFCA, texture is massive, veins are hematite or Quartz-Calcite often												13.28	14.35	17143	106	0.10	
		w/ hematite rim ← QC vein hematite, some pale green alteration in Quartz,												14.35	15.33	17144	96	0.10	
		calcite veins & surrounding some of the hematite veins. Small patches py <1% w/ veins												15.33	16.45	17145	105	TR	
		Hematite staining occurs on fracture surfaces as well. From ~17.4m												16.45	17.30	17146	80	0.07	
														17.30	18.33	17147	92	0.03	
		is a 10cm thick hematite rich zone, at ~18.5m is a 2cm thick												18.33	19.38	17148	106	TR	
		crumbly basaltic dyke, lowest 20cm darken gradually towards basaltic												19.38	20.46	17149	107	0.14	
		dyke to a very dark grey/black																	
20.46	20.97		BSDY	N	MS	VN			02										
		~½m thick basaltic dyke - upper contact is a v. small ~3mm brecciated																	
		layer. Dyke is xcut by small calcite veins up to 3mm. 1 larger 3cm																	
		calcite vein at ~20.7m																	
20.97	21.90		MFCA	6GT	MS	VN			04	14			HE/VN/1%	20.97	21.90	17150	82	TR	
		massive MFCA, some veining, Quartz-Calcite w/ Hematite <1% no pyrite																	
21.90	25.30		MFCA	6GT	MS	CR	BX	VN	18	24			PY/VN/5%	21.90	22.68	17151	79	0.21	
		MFCA, sulphide content increases at this point, Pyrite is present												22.68	23.57	17152	92	0.17	
		btwn 3 & 5%, fg. w/in veins, also minor hematite w/in veins												23.57	24.57	17153	97	0.14	
		<1%. 21.90 to 22.68 is crackled & veined w/ 5% pyrite but not												24.57	25.30	17154	53	0.14	
		brecciated. Breccia starts at 22.68 - the upper contact is a 1cm Quartz																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	CM RECOV	Au g/t	Ag g/t
		calcite vein. From 22.68 to 25.30 Brecciation increased, occurs as brecciated layers inc. in thickness & frequency. Range from 10 - 30cm thick separated by veins of MFCA																	
25.30	25.35		BSDY	N	MS				02										
		narrow ~5cm basaltic dyke surrounded by brecciated MFCA w/ a small ~1cm thick clay rich gouge interval on each side at the contacts.													—				
25.35	28.47		MFCA	ST	MS	VN	BX		24	14			HE/VN/2%	25.35	26.42	17155	5	0.07	
		MFCA, w/ brecciated layers. 25.35 to ~ 25.45 poorly consolidated breccia, matrix supported, 27.42 ≈ 27.55 same as above w/ hematite staining in matrix. At 26.60 there is an ≈ 10cm Quartz vein w/ few clasts (carbonate & MFCA) & w/ an ≈ 3cm Calcite vein w/ in it, calcite vein is vuggy, similar												26.42	27.42	17156	82	TR	
														27.42	28.47	17157	92	0.03	
		vein occurs at 27.55m - 15cm thick w/ angular clasts of MFCA, lower contact is a vuggy, ~1cm thick calcite vein. Mineralization consists of hematite in veins & minor staining on fractures.																	
28.47	41.35		MFIF	3G	MS	LM	VN		02	0	CV/1/25°		HE/VN/1%						
		unaltered mafic volcanics, alternating between tuff & epiclastic (v. fine grained), (laminated) sediments or possibly waterlain tuff), xcut by calcite veins ≈ 0.5m thick, btwn 15° & 40° to core axis & some hematite rich veinlets																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

C. McPhee

c:\data\expl-geo\lithol.wk3

DDH G95 UG 130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
41.35	43.38		MFCA	5T	FO	MS	VN		04	14	FO/0/75		HE/VN/7%; PY/EU/1%	41.35	42.40	17158	93	0.03	
		MFCA, Massive w/ foliations. foliations are hematite stained & are between 70 & 80° from core axis, at 41.65 ~10cm interval w/ ~30% Hematite, this layer appears Laminated although extensively veined, HE is pervasive, There is <1% pyrite, FG w/in veins. Small euhedral												42.40	43.38	17159	85	0.21	
		pyrite (<1mm) occurs throughout unit.																	
43.38	46.63		MFCA	5T	MS	LM	VN		04	14			PY/SP/1%	43.38	44.20	17160	76	0.03	
		MFCA, mostly massive w/ some laminations. Veins are mostly Qtz w/ some calcite. Py occurs as spots w/in matrix - generally not assoc w/ veining												44.20	45.11	17161	85	0.17	
														45.11	46.06	17162	99	0.03	
														46.06	46.63	17163	59	0.17	
46.63	55.49		MFCA	5T	MS	BD	VN	CR	06	24			PY/VN/3%	46.63	47.83	17164	122	0.03	
		MFCA w/ Argillite interbeds. Argillite occurs at: 46.69-46.71, 46.87-47.05, 47.75-48.35, 48.60-48.67, 49.17-49.32, 49.40-49.49, 49.57-50.25, 51.36-51.55, 51.73-51.83, 53.30-53.38, 53.80-54.10, 54.50-54.95, the argilite is med to dark grey & (laminated) (laminae ~1-5mm thick) py. is												47.83	48.85	17165	95	0.07	
														48.85	49.83	17166	91	0.07	
														49.83	50.55	17167	82	0.07	
														50.55	51.80	17169	114	TR	
														51.80	52.73	17170	90	0.27	
		w/in veins w/ minor disseminated w/ in the argilite beds. There are some zones where MFCA is crackled w/ extensive py. rich veining 50.90-51.35, 51.55-51.85,												52.73	53.73	17171	96	TR	
														53.73	54.75	17172	102	0.10	
														54.75	55.49	17173	81	TR	

CmcPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
55.49	57.07		MFCA	RT	MS	VN			04	14			HE/PR & VN/15%	55.49	56.25	17174	74	0.10	
		MFCA w/ patches ~10cm of pervasive hematite - dark red/brown in colour, rock is all stained pink, veinlets of hematite are present as well as, Quartz - dolomite veins w/ hematite along the boundaries. Pyrite is present in spots, fine grained ~1%, more common in areas w/ less hematite												56.25	57.07	17175	55	0.31	
57.07	61.60		MFCA	5T	MS	BD	VN	CR	14	24			PY/VN/3%	57.07	57.97	17176	93	TR	
		MFCA with argilite interbeds - continuation of the unit @ 46.63 w/ the hematite rich interval between them. 57.07 - 58.50 MFCA w/ no argilite, veined w/ pyrite both in veins & as small <1mm spots throughout, ~1% overall 1st argilite @ 58.50 - 59.12, lower 10cm of this is Brecciated w/ matrix												57.97	58.82	17177	83	TR	
														58.82	60.15	17178	125	0.03	
														60.15	61.05	17179	88	0.10	
														61.05	61.60	17180	55	0.27	
		of quartz, this bed has spots of pyrite throughout ~1%. Interval of MFCA 59.12 - 59.60 w/ ~5-7% pyrite assoc. w/ Qtz dolomite veins & as spots throughout. f.g. yellow pyrite. 59.60 - 59.95 argilite - faulted & broken up - some small (1-2cm) breciated layers - clasts not rotated. 7-10%																	
		pyrite w/ in veins & as spots throughout, some large 1cm+ patches of f.g. pyrite w/ in volcanics bands (5cm) in the argilite lower contact is ~3cm breccia w/ volcanic, argilite & qtz vein clasts. Quartz is ~50% replaced by f.g. pyrite. More argilite blown 60.40 & 60.60																	
		- broken up w/ pyrite in veins, @ 60.95 MFCA becomes crackled & brecciated, breccia is clast supported & poorly consolidated, some small 0.5 cm gouge layers present f-m.g. pyrite assoc. w/ gouge & in veins & along fractures. py ~5% [illegible]																	

Cimphee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERAUZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
61.60	72.64		MFCA	GT	VN	CR	BX	FO	16	14	FO/0/10		PY/VN/1% HE/VN/1%	61.60	62.66	17181	103	0.03	
		MFCA, 61.60 - 65.0m ~7% PY fg. in veins, foliated in places w/ ∠ to core												62.66	63.79	17182	112	TR	
		axis 0-10°, green (clorite?) mineralization along foliations, no hematite												63.79	64.92	17183	101	0.10	
		From 65.0m to 70.35m pyrite decreases to 1% small (<1mm) spots												64.92	65.81	17184	84	0.03	
		throughout. Hematite is present in veins btwn 1% ± 2%, some foliations												65.81	66.88	17185	105	0.03	
														66.88	67.85	17186	96	0.07	
		w/ green alteration still present at same angle (unit is ~20% foliated)												67.85	68.88	17187	97	TR	
		at 70.35 is a ~5cm brecciated zone - poorly consolidated w/ gouge												68.88	69.66	17188	76	TR	
		matrix, clast supported. from here to 71.65m rock is broken, cracked												69.66	70.40	17189	74	0.03	
		& brecciated, clasts generally not rotated. pyrite present 1% mostly												70.40	71.42	17190	70	0.07	
														71.42	72.64	17191	115	0.07	
		in veins w/ some small spots. no hematite, clorite alteration along foliations																	
		& Qtz calcite veins to ~10%. From 71.65 - 72.64 rock is laminated																	
		(possible epiclastic or waterlain), some green (chorite?) alteration & dissemi-																	
		nated py to ~1%.																	
72.64	76.60		MFCA	AT	CR	BX	VN		28	24			PY/VN/2%	72.64	73.55	17192	88	0.07	
		MFCA w/ argilite interbeds, folded, cracked & brecciated w/ ~2% PY.												73.55	74.60	17193	106	0.48	
		argilite beds 73.90 - 74.40 extremely folded, not broken. pyrite												74.60	75.64	17194	98	TR	
		spots ~1% throughout. argilite at 75.07 - 75.60 is brecciated,												75.64	76.60	17195	75	0.14	
		matrix supported w/ occ. chert clasts (broken veins) some small PY veins																	
		(<1%). sharp lower contact w/ ~0.5cm dark grey gouge																	
		at 75.60. below contact is brecciated MFCA & end of unit																	

C. McPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
76.60	78.58		MFCA	GT	MS	VN			12	14	QQ/1/40			76.60	77.60	17196	92	0.17	
		massive veined MFCA, py <1% in veins & as spots, HE <1% in veins,												77.60	78.58	17197	99	TR	
		some green (chlorite) alteration in veins. Quartz-dolomite veins up to 0.5cm																	
		thickness generally btwn 50° & 30° from core axis																	
78.58	82.33		MFCA	7A	CR	BX	VN		28	24			PY/PT/2%	78.58	79.53	17198	93	0.45	
		MFCA very crackled & Brecciated., py present in veins or as patches & spots,												79.53	80.52	17199	93	0.17	
		from 10% to <1% locally, overall ~2%. py ↑ in unbrecciated areas. Breccia												80.52	81.49	17200	85	0.17	
		is clast supported, clasts are rotated, matrix is clay rich gouge, moderatly												81.49	82.33	17168	89	.69	→
		consolidated. At 78.98m is a ~20cm Qtz vein x cut by many small																	
		calcite veinlets large (5cm thick) quartz veins occur 30-50cm on either																	
		side of this vein up to 25% of rock. No mineralization in quartz vein but																	
		below this vein where veins are crackled there is abundant pyrite (locally 10-15%)																	
		Brecciation increases toward lower contact (unit is ~60% breciated overall)																	
		81.90 - 82.33 completely brecciated w/ soft gougy matrix, clasts subangular																	
		& rotated, only slight mixing of lithologies at contact. ~5cm thick																	
		zone w/ darker grey matrix & some dolomite clasts, contact is a 0.5cm																	
		clay gouge (dark grey)																	
82.33	101.22		DOSB	4A	BX	CR	VG	VN	19	24				82.33	83.35	17301	0.92	0.41	
		crackled & brecciated dolomite w/ chert interbeds (likly a brecciated &												83.35	84.33	17302	0.83	0.10	
		moderately silicified DOCH), pervasive calcite veining, rock reacts												84.33	85.30	17303	0.84	0.10	
		strongly w/ HCL. 82.33 & 83.50 clasts are on average 5mm, subangular,												85.30	86.26	17304	0.81	0.10	
		rotated, Bx is clast supported, matrix is dark green, massive.												86.26	87.40	17305	1.03	0.07	

C.McPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	~~Ag g/t~~ Au Chemex
														87.40	88.35	17306	0.84	0.03	
		at 83.50, brecciation less intense, rock is crackled or brecciated. clasts are												88.35	89.31	17307	0.89	0.07	
		larger (cm's), not rotated, angular, Breccia is clast supported, mostly dolomite												89.31	90.41	17308	0.92	0.07	
		w/ occassional black chert clasts, throughout unit There are 30-50cm												90.41	91.42	17309	0.81	0.27	
		sections w/ smaller clasts (5mm & less), some are matrix supported,												91.42	92.35	17310	0.79	0.10	
														92.35	93.30	17311	0.92	TR	
		up to 10% chert clasts. At 92.35 rock is more highly												93.30	94.30	17312	0.83	0.69	0.34
		fractured to end of unit. few core fragments over 10cm, 70% less than												94.30	95.29	17313	0.73	0.10	0.07
		5cm. lowest 30cm of unit is a breccia & gouge interval w/ ~ 5cm soft												95.29	96.30	17314	0.71	0.38	Tr
		clay rich gouge surrounded by poorly consolidated breccia. Sample from												96.30	97.32	17315	0.74	0.27	Tr
														97.32	98.30	17316	0.72	0.24	0.07
		101.22 - 101.72 is of the contact breccia, gouge.												98.30	99.30	17317	0.63	0.24	Tr
														99.30	100.38	17318	0.99	0.14	Tr
														100.38	101.22	17319	0.87	0.17	Tr
														101.22	101.72	17320	0.53	0.10	0.14
101.72	107.25		MFCA	GT	BP	BX	GO		24	14			PY/VN/2% / FU/SS/1%	101.72	102.65	17321	0.36	0.17	Tr
		greenish tan altered volcanics w/ dark grey argillite interbeds												102.65	103.65	17322	0.94	0.14	Tr
		volcanics are locally bedded, bedding may be folded or faulted on												103.65	104.70	17323	1.07	0.03	Tr
		a small scale, some chert (med grey, translucent) beds possibly												104.70	105.74	17324	1.08	Tr	Tr
		replacement of beds by quartz, these are locally folded also,												105.74	106.68	17325	0.80	0.10	Tr #S#
														106.68	107.25	17326	0.54	0.03	0.20
		Some gouge zones, 103.17 - 103.31 - 5cm of v. folded argilite, separated																	
		from surrounding volcanics by 3-4cm of crumbly, moderately clayey																	
		gouge at each contact 104.75 - 20cm of gouge/breccia - med-dark																	

C. McPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHEMEX Ag g/t
		105.03 ~ 8cm similar gouge material below which is ~ 15cm of heterolithic breccia, containing volc., chert & silicified dolomite clasts. Matrix is pale grey - banded to ~ 10cm where it is dark grey & clasts are small <5mm. this lower breccia is matrix supported, 10cm																	
		of crumbly pale grey gouge at lower contact. Argillite interbeds are extensively foliated & locally brecciated containing volcanic clasts. sub angular .5-3cm in a dark matrix (matrix supported). < 1% py as small spots throughout volcanics. 2% py as veins or along bedding planes																	
		in volcanics & argillites																	
107.25	107.70		DOSB	7A	CR	BX	GO		28	24				107.25	107.70	17327	0.40	0.17	0.20
		moderately silicified Dolomite breccia w/ chert clasts - clayey matrix. clast supported, clasts angular, rotated. 10% chert, moderately consolidated. From 107.59 to 107.70 v broken up w/ few small (1 cm) gouge layers.																	
107.70	113.46		MFCA	GA	PO	BD	VN		14	24	FO/0/50		PY/VN: SP/2%	107.70	108.24	17328	6.46	0.10	0.07
		altered volcanics. upper 50cm poiaranular, sheared & pyritized to ~ 30%.												108.24	109.62	17329	1.36	0.03	TR
		Pyrite is in veins & as patches. 108.20-110.84 (sharp contact) there is a pale ~~green~~ grey formerly epiclastic volcanic flow w/ chlorite alteration of phenocrysts to a tuff sub unit. phenocrysts about 1-2mm, this unit												109.62	110.85	17330	0.98	0.21	TR
														110.85	111.86	17331	1.00	0.03	TR
														111.86	112.72	17332	0.87	0.03	TR

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3

DDH G95UG95

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHEM Ag g/t
														112.72	113.44	17333	6.77	0.07	TR
		is foliated, foliations run ~ 50° to core axis. <1% Py as spots. At 110.84 the volcanics are massive to thinly bedded w/ some short (~10 cm) intervals of brecciation & gouge. Py is in veins or as patches up to 5% locally, ~1% overall. At 112.59 Beds become folded, there are some silicified																	
		carbonate ~~zones~~ beds in this folded region. At ~114.65 there is 10cm of a hetmolithic breccia w/ dolomite & chert clasts & minor volcanic clasts Samples 107.70 - 108.24 upper Bx. rich zone, 108.24 - 109.62, 109.62 - 110.85 - epiclastic flow, 110.85-111.80-112.22 MFCA bedded w/ 1-5% Py, some gouge, 112.72 - 113.44, MFCA																	
		w/ carbonate beds & breccia.																	
113.46	116.81		CHRT	7A	BD	BX			16				PY/SP/1%	113.46	114.47	17334	0.86	0.17	TR
		chert - unable to tell if its primary or totally silicified carbonate												114.47	115.48	17335	0.96	0.24	TR
		contains ~15% calcitic clastic beds (1cm thick w/ <1mm rounded												115.48	116.81	17336	1.31	TR	TR
		calcite grains supported by a med-grey matrix. pyrite present as																	
		small 1mm spots throughout at ~1%.																	
116.81	119.88		ARGI	5A	BD	VN + BX			14	24			PY/SP/1%	116.81	118.10	17337	115	0.03	0.14
		thinly laminated argillite w/ interbeds of CHERT (as above) &												118.10	118.96	17338	0.78	0.27	TR
		of MFCA. unit is ~ 50% argillite, 20% CHERT, 30% MFCA, argillite												118.96	119.88	17339	0.86	0.10	TR
		beds are folded, veined & locally brecciated. Py mineralization																	
		occurs ~~along~~ as spots along bedding, small intervals (10 cms) of																	

C.M Sheet

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95 UG95

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHEMEX Ag g/t
		phyllite w/ chlorite/sericite coating, also folded. Chert is cracked, locally brecciated ~5% gouge in <1cm layers about 10cm apart. main CHRT interval is from 118.89 - 119.59, some MFCA interbeds w/ ~3% py in spots & patches, med grey w/ green alteration, slight foliation.																	
		Samples 116.81 - 118.10 - ARG1, 118.10 - 118.96 - MFCA w/ ARG1, 118.96 - 119.88 - CHRT > MFCA > ARG1.																	
119.88	124.36		ARG1	5A	BD	BX	VN	GO	14		BD/0/90°		PY/SP/5%	119.88	121.18	17340	1.29	0.24	0.34
		argillite interbedded w/ MFCA, some folding of argillite laminae, unfolded laminae are ~90° to core axis. argillite is locally brecciated, small clasts <1cm, subangular & rotated. brecciated zones ~ 5-10cm thick. 1 to 2cm thick gouge zone at 121.20. Py is as spots throughout, some												121.18	122.21	17341	0.86	0.55	0.48
														122.21	123.20	17342	0.90	0.10	0.20
														123.20	124.36	17343	0.79	0.31	0.07
		veins & <1% euhedral in argillite.																	
124.36	131.39		MFCA	5A	MS	VN	GO		14	28			PY/PR/30%	124.36	125.23	17344	0.91	0.27	0.20
		strongly pyritized altered volcanics, ~30% pyrite, disseminated & as patches.												125.23	126.42	17345	1.17	0.42	0.20
		strongly chloritic altered for upper 30cm, this alteration appears locally throughout unit, often in veins. % of pyrite decreases in these zones (about 10% of unit). 2 ~ 10cm gouge units at ~ 128.90 & 129.50. Gouge is clay												126.42	127.44	17346	0.97	0.07	0.07
														127.44	128.51	17347	1.09	0.38	0.27
														128.51	129.44	17348	0.86	0.03	0.48

C. McPhee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH 69546130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHECK Ag g/t	% S
														129.44	130.45	17349	0.98	0.24	0.27	
		rich, crumbly, med grey w/ pyrite grains & euhedral xtals without (~7%), surrounding broken up MFCA, v. poorly consolidated.												130.45	131.39	17350	0.93	0.55	0.41	
131.39	132.69		ARGI	3A	BD	BX	VN	GO	26	24			PY/SP & EU/ 5%	131.39	132.06	17351	0.64	1.58	1.63	
		mixed up unit w/ about 60% laminated argillite, 30% MFCA & 30% Heterolithic Breccia, upper 20cm is Brecciated with chert, carbonate & volcanic clasts, matrix supported, well consolidated, clast range from 2cm - ~3mm in size & are sub rounded, pyrite occurs as spots throughout matrix and w/in some clasts, 2 - 1cm gouge intervals in this breccia. From ~ 131.59 to 131.79												132.06	132.69	17352	0.58	5.28	5.71	2.10
		is MFCA, massive, foliated & folded w/ calcite veining, py occurs as spots & euhedral xtals throughout, not conc. in veins, at ~ 131.84 - heterolithic breccia surrounded on either side w/ ~10cm of v. folded argillite, bottom 3 cm of this breccia is a chlorite rich sheared, micaceous interval w/ small rounded lithic clasts 4mm. From 132.07 is ~50cm of																		
		laminated argillite, bedding is ~ 50° from core axis. Qtz & calcite veining, py occurs as spots & euhedral xtals throughout. at 132.33 is a small sheared interval w/in the argillite. The lowest 25 cm of the unit is ~ 10 cm of MFCA followed by ~ 15 cm of unconsolidated heterolithic breccia w/ sub angular clasts 2cm - 1mm in size, matrix supported, matrix is dark grey clay rich gouge.																		
		soft py occurs as spots & xtals throughout matrix																		

C. MOPlee

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG13

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHEMEX Au g/t
132.69	133.64		MFCA	7A	FO	VN	GO		14	24			PY/PT/ 7%	132.69	133.64	17353	0.96	0.03	0.07
		Foliated + Bided MFCA w/ patches of pyrite + frequent (1/5cm) thin gouge layers (<1cm thick). at ~133.30 is a 15cm piece of core which may be misplaced. It is silicified carbonate but no evidence of a contact between this + the surrounding MFCA exists.																	
133.64	135.97		MFCA	6A	VN	CR	GO	FR	26	26			PY/PT/ 20%	133.64	134.73	17354	1.07	2.50	0.41
		altered volcanics w/ ~20% pyrite as patches, rock is extensively fractured w/ thin clayey gouge w/in all fractures. gouge is light grey, clay rich, micaceous + may contain 10-15% py. at 134.51 is a 20cm brecciated, gouge layer, v. soft, clasts are MFCA + carbonate - from 2cm - 0.5cm, subangular. below this												134.73	135.31	17355	0.56	0.24	0.20
														135.31	135.97	17356	0.63	0.27	0.20
		breccia is broken up (core frags 5cm or less) silicified carbonate w/ ~2% Py as spots along fractures veins until 135.23. from here to end of unit the pyrite rich MFCA continues.																	
135.97	138.40		DOSB	6A	BX	CR	GO		28	26			PY/SP/1%	135.97	136.79	17357	0.85	0.48	0.48
		silicified, brecciated dolomite, brecciation increases down unit. At top of unit rock is cracked + broken, clasts not rotated, large, angular, down the unit clast size decreases, breccia goes from clast supported to matrix supported, matrix is a dark gray sulfide rich clay w/ ~3-5% pyrite, clasts are dolomite + silicified dolomite generally well												136.79	137.75	17358	0.96	1.92	1.63
														137.75	138.40	17359	0.63	1.13	1.09
		consolidated w/ ~3cm gouge at 137.60 and ~10cm gouge breccia at end of unit																	

CIM Sphere

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au check Au g/t
138.40	139.01		MFCA	5A	Bx	GO			26	14			PY/SP/2%	138.40	139.01	17360	0.62	1.31	1.36
		folded, fractured & brecciated MFCA, breccia contains clasts of carbonate & 1 large 4cm clast of argillite. PY occurs as spots in the unbrecciated MFCA at ~2%, & at ~1% throughout breccia matrix.																	
139.01	139.77		LMGT	3A	Bx	CR	GO	VN	16	0			PY/GO/2%	139.01	139.77	17361	0.67	0.38	0.27
		med-dark grey limestone, cracked & brecciated with some dark grey fg. sulphide stringers. appears laminated but is too broken up to see any continuous bedding. extensively calcite veined, both veins & ground mass react strongly w/ HCl. Fg. pyrite occurs as spots & patches w/in dark grey clay rich stringers along																	
		fractures, ave ~ 1% overall, ~5-10% w/in the stringers. rock is fairly hard - difficult to scratch w/ steel.																	
139.77	144.17		DOSB	3A	Bx	GO	VN		26	24	FC/15/254		PY/GO/5%	139.77	140.75	17362	0.88	0.21	0.20
		dark grey carbonate breccia, silicified, looks very similar to above but reacts only weakly w/ HCl when powdered. more thoroughly brecciated. clasts are ~1cm-2cm average, angular & rotated. breccia is clast supported. matrix is dark grey-black, clay rich w/ fg. sulfides. at 143.80 is												140.75	141.52	17363	0.77	0.41	0.41
														141.62	142.40	17364	0.75	0.69	0.61
														142.40	143.30	17365	0.41	1.68	2.18
														143.30	144.17	17366	0.40	0.93	0.88
		~15cm gouge interval, light to med grey clay matrix supporting clasts of the surrounding carbonate. as well as ~3-5cm of brecciated, angled, unrotated MFCA clasts ~1cm size.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95UG130

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Au CHEMEX Ag g/t
144.17	145.70		LOST																
145.70	146.10		GOUG	VA	GO				29				P/EU/1%	145.70	146.10	17367	0.20	1.82	1.84
		sandy, clay rich, grey-brown gouge w/some clasts 2-3cm sz. these are subrounded, black, hard, do not react w/ HCl & have small patches of py to about 3%. pyrite + tals occur as grains throughout to ~1%. The brown grey colour is replaced by med grey as you dig into the sand.																	
146.10	148.34		MPCA	GT	VN	FR	GO		46	NB			HE/VN/1%	146.10	147.22	17368	1.00	0.17	TR
		light green-tan altered intrusive w/ hematite staining along veins & ~10% calcite veining. rock is very broken up w/ med grey clay gouge infilling fractures. fractures about 1/10cm., rare calcite veins w/ abundant pyrite.																	
148.34	148.74		GOUG	BA	GO	GR			29				PY/EU/5%	147.22	148.74	17369	0.20	0.72	0.48
CAVE		med grey gouge material. normally graded from gravelly diamictite at base w/ ~20% clay rich matrix, to about 7-8cm of sand (also clay rich). upper 25cm is sloppy clay w/ < 10% sand sized particles, sand component consists of 5-10% euhedral pyrite, rounded, clay component contains ~5%																	
		v.f. grained pyrite flakes.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH G95 [illegible]

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	AU CHEMEX ~~Ag g/t~~
148.74	151.02		MFCA	RT	MS	VN	GO	SH	16	16	FR/0/60	UC/0/70	PY/CO SP/0.5	148.74	149.88	17370	0.78	0.24	TR
		-reddish tan moderately veined + bleached volcanic. Massive in texture w irregular qtz-carb veins to 1.0 cm, 1 every 15-30 cm. Sheared w minor gouge locally. Upper contact @ 70° TCA, fracts common @ 60° TCA. Py on fracture coating + spots ≈ 0.25-0.5%. Minor hem.												149.88	151.02	17371	0.97	1.61	TR
151.02	151.98	FZ	DOSB	4A	GO	SH	BX		28	22	UC/0/80	LC/0/50	PY/GO/0.1	151.02	151.98	17372	0.81	0.03	TR
FOOTWALL FAULT		-moderately silicified, crackled dolomite as clasts in fault zone. ≈ 50% DOSB, 50% medium to dark grey clay gouge. Gouge contains trace py. Lower contact sharp @ 50° TCA Upper contact @ 80 TCA																	
151.98	156.80		MFCA	6G	VN	FO			12	14	FR/0/50		HE/CO/0.1	151.98	152.98	17373	0.80	0.65	TR
		-lightly to moderately altered and bleached mafic volcanics (tuffs). moderately to strongly qtz carb veined, often 40-50° TCA, 1mm to 10mm wide 1 every 10-20cm. Minor hem on fracts, weakly foliated // to fracts.																	
156.80	174.65		MFAS	4G	MS	BD	VN		0	0	FR/0/45	FR/0/15	HE/CO/0.1						
		-darkish green, massive, bedded mafic ash tuff. Bedding @ variable ∠ TCA. Fracts most common @ 45° TCA, 15° TCA also. Weakly calcite + qtz-carb veined, often 45° TCA but also random one every 10-50cm, 1-5mm wide. Minor hematite on fracture.																	

E OH = 174.65 m

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: [signature]

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
1734	UG 130	.31				
5		.10				
6		TR				
7		TR				
8		TR				
9		.31				
140		.03				
1		.07				
2		.17				
3		.10				
4		.10				
5		TR				
6		.07				
7		.03				
8		TR				
9		.14				
150		TR				
1		.21				
2		.17				
3		.14				
4		.14				
5		.07				
6		TR				
7157		.03				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/W

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17158	UG 130	.03				
9		.21				
160		.03				
1		.17				
2		.03				
3		.17				
4		.03				
5		.07				
6		.07				
7		.07				
9		TR				
170		.27				
1		TR				
2		.10				
3		TR				
4		.10				
5		.31				
6		TR				
7		TR				
8		.03				
9		.10				
180		.27				
1		.03				
17182		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 11, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/a.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17183	UG 130	.10				
4		.03				
5		.03				
6		.07				
7		TR				
8		TR				
9		.03				
190		.07				
1		.07				
2		.07				
3		.48				
4		TR				
5		.14				
6		.17				
7		TR				
8		.45				
9		.17				
17200		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 12, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: DLW

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17301	4G130	.41				
2		.00				
3		.10				
4		.10				
5		.07				
6		.03				
7		.07				
8		.07				
9		.27				
310		.10				
1		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: June 14/95

MINE ASSAY REPORT (ASSAYSAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
DH268 18085		0.62				
86		0.10				
91		6.34				
88		1.95				
89		3.29				
90		4.77				
91		6.62				
92		7.06				
93		9.63				
94		5.66				
95		9.02				
UG-130 17312		0.69				
13		0.10				
14		0.38				
15		0.27				
16		0.24				
17		0.24				
18		0.14				
19		0.17				
20		0.10				
21		0.17				
22		0.14				
23		0.03				
24		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 14/95

MINE ASSAY REPORT (ASSAY SAMPLES)

ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG1301 7325		0.10				
26		0.03				
27		0.17				
28		0.10				
29		0.03				
30		0.21				
31		0.03				
32		0.03				
33		0.07				
34		0.17				
check ASSAYS						
DH2681103		97.07				
05		307.79				
06		154.66				

GOLDEN BEAR OPERATING COMPANY

DATE: June 15/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
UG1301/1335		0.24				
36		TR				
37		0.03				
38		0.27				
39		0.10				
40		0.24				
41		0.55				
42		0.10				
43		0.31				
44		0.27				
45		0.47				
46		0.07				
47		0.38				
48		0.05				
49		0.24				
50		0.55				
51		1.58	3.37/1.3m			
52		5.28				2.10
53		0.03				
54		2.50				
55		0.24				
56		0.27				
57		0.48				
58		1.92				

GOLDEN BEAR OPERATING COMPANY

DATE: June 15/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
UG1301359		1.13				
60		1.37				
61		0.38				
62		0.21				
63		0.41				
64		0.69				
65		1.68				
66		0.93				
67		1.82				
68		0.17				
69		0.72				
70		0.24				
71		1.61				
72		0.03				

NORTH AMERICAN METALS CORP
DRILL LOG COVER SHEET

DATE:

PAGE: OF

DRILL HOLE # G95UG131 PROJECT AREA: GRIZZLY SECTION: 23950 N

DRILL HOLE LOCATION DATA

EASTING: 25068.32
NORTHING: 23952.91
ELEVATION: 956.25
HOLE LENGTH (M): 232.25

DRILL DIARY

STARTING DATE: 04/06/1995 (DD/MM/YYYY)
COMPLETION DATE: 15/06/1995 (DD/MM/YYYY)
LOGGED BY: LCP RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: PH EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	264.82	-63.21	SURVEY
1	60.96	268	-65	SPERRY
2	129.54	269	-65	SPERRY
3	229.20	266	-66	SPERRY
4				
5				

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	14.50	MFCA		144.15	149.96	CHRT	
14.50	17.06	MFFL		149.96	151.76	DOLO	
17.06	33.14	MFCA		151.76	166.30	DOSB	
33.14	38.43	MFFL		166.30	166.40	BSDY	
38.43	45.23	MFCA		166.40	173.59	DOSB	
45.23	46.00	ARGI		173.59	174.35	BSDY	
46.00	47.75	MFCA		174.35	178.92	DOSB	
47.75	50.79	MFFL		178.92	183.49	LOST	
50.79	56.70	MFCA		183.49	184.87	DOSB	
56.70	67.80	ARGI		184.87	185.18	BSDY	
67.80	69.29	MFCA		185.18	188.67	CHSB	
69.29	74.50	MFFL		188.67	189.59	LOST	
74.50	87.20	MFCA		189.59	193.01	GOUG	
87.20	89.98	LMST		193.01	193.56	MFCA	
89.98	92.05	MFCA		193.56	197.73	LMBX	
92.05	99.67	DOSB		197.73	201.19	MFCA	
99.67	107.15	ARGI		201.19	202.00	LMBX	
107.15	108.54	MFCA		202.00	227.08	MFCA	
108.54	118.05	ARGI		227.08	232.25	MFAS	
118.05	126.57	MFCA					
126.57	133.20	DOSB					
133.20	144.15	CHSB					

COMMENTS:
Hole making moderate water within first 15m. Rate about same for rest of hole. Much sand with poor recovery 168m - 190m (in carbonate) WATER FLOW MUCH HIGHER IN THIS ZONE.

CHECK LIST | ASSAY REPORT | CORE PHOTOS

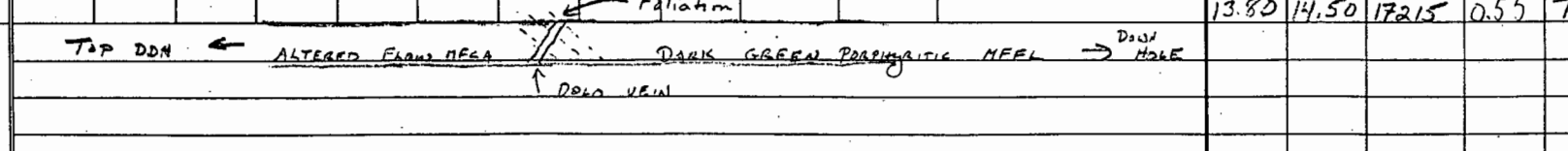
NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. PIGAGE
June 07/95

c:\data\expl-geo\lithol.wk3 DDH G95UG131

Page 1 of 17

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
0.00	3.98		MFCA	8G	PP	FO	GO	MS	18	16	FO/0/75	VN/1/70	Py/DS/5 HE/VN/						
			Pale greenish grey, porphyritic, foliated, noncalcareous, altered massive volcanics. Phenocrysts pale green up to 5mm across. Minor veutting while dolomite-quartz veins up to 5cm across. Intvls up to 0.7m have reddish-brown hematite staining in fractures and veins. These intervals are more broken. Pyrite disseminated as small irregular aggregates. Minor short 10cm									0.00	1.06	17201	0.58	0.21	
														1.06	2.13	17202	0.66	TR	
														2.13	3.00	17203	0.72	0.07	
														3.00	3.98	17204	0.57	0.14	
			intervals are gouged. Top of hole very broken and rubbly with some rodrilled core. Strongly hematitic intervals only contain minor pyrite																
3.98	14.50		MFCA	8G	PP	FO	MS		14	18	FO/0/55	HE/0/60	Py/DS/2	3.98	5.02	17205	0.88	TR	
			Pale greenish grey, porphyritic, foliated, moderately soft, altered massive volcanics. Noncalcareous. Phenocrysts formerly feldspar - now altered pale, soft green. Phenocrysts about 30-40%. Foliation as anastamosing dark streaks around phenocrysts. Very minor pyrite as irregular aggregates up to 2mm across. Local dolomite-quartz veins up to 10cm thick											5.02	6.00	17206	0.97	TR	
														6.00	7.00	17207	0.91	0.03	
														7.00	8.00	17208	0.95	TR	
														8.00	9.00	17209	1.02	0.07	
														9.00	10.00	17210	0.79	0.03	
			Trace of reddish brown hematite spots. Intl 13.25-13.50m incipiently gouged. Unit moderately broken. Distinguished from overlying unit by lack of hematite staining. Lower contact with unaltered greenstones sharp across a 3mm dolomite vein.											10.00	11.00	17211	0.99	0.03	
														11.00	12.00	17212	0.73	TR	
														12.00	13.00	17213	0.68	TR	
														13.00	13.80	17214	0.72	TR	
														13.80	14.50	17215	0.55	TR	



NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigge
June 07, 1995

c:\data\expl-geo\lithol.wk3

DDH 695UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
14.50	17.06		MFFL	2G	PP	MS	FO		0	0	FO/0/50		HE/VN/0.1						
		Dark green, moderately soft, moderately calcareous, massive porphyritic greenstone. Pale green, calcareous phenocrysts up to 2mm across constitute 40% of unit. Foliation defined by dark greens chlorite between phenocrysts. Minor grey calcite veining. Trace, irregular hematite streaking along foliation planes - hematite dark red. Indu/ 15.85-16.10 altered as per immediately overlying unit. Upper contact sharp alteration front across vein. Lower contact gradational with decrease in green over 0.5m. intervals. Uncertain whether flow or dyke - medium grained - could be either.																		
17.06	19.90		MFCA	GT	FO	BN	PP		12	19	FO/0/60	FO/0/70	Py/DS/5	17.06	18.00	17216	0.98	Tr	
		TOI - 18.50m moderately soft, dolomitic, pale greenish tan, foliated, massive, porphyritic altered greenstone. Disseminated pyrite as 1-3mm streaks within plane of foliation. Pyrite about 5% of unit. Intvls contain streaks of bright green "mariposite." 18.50 - EOI is pale tan, moderately hard to hard, thickly banded, dolomitic altered volcanics. Massive, foliated, not porphyritic. Py as streaks within foliation - foliation also defined by banding and phyllitic parting. Banding 1-10cm thick. Greater volcaniclastic component to this interval. Core moderately to slightly broken w/ good recovery.												18.00	19.00	17217	0.90	0.10	
														19.00	19.90	17218	0.79	0.14	
19.90	22.78		MFCA	9T	BD	FO			14	19	BD/2/65	FO/0/50	Py/DS/2	19.90	20.90	17219	0.88	Tr	
		Similar to above unit (18.50-22.78) only contains 30% interbeds of thinly bedded (2cm) dark grey, noncalcareous, hard, siliceous shale to chert. Shale/chert interbeds up to 1/5cm thick. Volcanics are light tan, foliated, banded, hard, slightly dolomitic locally, contains thin greenish intervals. Disseminated pyrite in both volcanics & shale as 1-3m streaks												20.90	21.94	17220	0.81	0.07	
														21.94	22.78	17221	0.71	0.03	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigge
June 07, 1995

c:\data\expl-geo\lithol.wk3 DDH G95UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
		Minor quartz + dolomite veins up to 5cm thick. Veins locally slightly vuggy with crystals growing into cavity. Bedding & foliation disrupted & broken as approach lower contact.																	
22.78	24.00		MFCA	5A	BX	SH			26	26									
		22.78-23.20 Subangular pale tan altered volcanic clasts in a fine-grained, dark brownish grey, noncalcareous, moderately soft, gouge matrix. Clasts are matrix supported - 30%-40% of interval. Pyrite as irregular, late aggregates within fine grained matrix. 23.20-24.00 pale tannish grey, noncalcareous, moderately soft bxa of altered metavolcanics.												22.78	23.46	17222	0.65	0.27	
														23.46	24.00	17223	0.52	Tr	
		Clast-supported with clasts forming 70-80%. Matrix is gougy zones anastamosing around the angular clasts. Clasts up to 3 cm across. Only minor pyrite. Upper & lower contacts gradational over 10cm with decrease/increase in structural disruption																	
24.00	33.14		MFCA	8T	FO	MS	VN		14	19	FO/0/80	DV/1/35	Py/DS/0.1	24.00	25.00	17224	0.93	0.31	
		Pale tan, soft, foliated, massive, highly altered volcanics. Locally grades to shades of grey. Contains intervals with bright green mariposite streaks disseminated in unit. Minor xcutting slightly irregular, off-white dolomite veins up to 1cm thick. Core only slightly broken. Minor local incipient bxa zones. Recovery good. Lower contact gradational												25.00	26.00	17225	0.88	0.03	
														26.00	27.00	17226	0.85	0.31	
														27.00	28.04	17227	0.67	Tr	
														28.04	29.00	17228	0.91	0.14	
														29.00	30.10	17229	0.89	0.07	
		Only trace amounts of fine pyrite scattered through unit. Intvl 29.00-30.10 incipiently gouged & bxiated.												30.10	31.09	17230	0.94	0.03	
														31.09	32.10	17231	0.91	Tr	
														32.10	33.14	17232	0.80	0.03	

L. Pigge
June 07, 1995

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG131

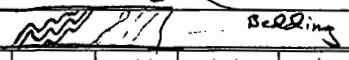
FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
33.14	38.43		MFFL	3G	FO	MS	BD		12	0	FO/0/70	CU/1/20	
		Dark green, moderately soft, slightly calcareous, foliated greenstone. Dominantly massive lesser intervals are thinly bedded epivolcaniclastics. Beds up to 3cm thick. Pervasively foliated. Minor thin reutting reddish white calcite-hematite veins. Core intact. Upper and lower contacts gradational over 20cm into altered volcanics. Bedding subparallel foliation.											
38.43	45.23		MFCA	GT	BD	FO					FO/0/65	DV/1/35	Py/5%/0.1
		Pale greenish tan, soft, slightly calcareous, massive to thinly bedded, "phyllitic" altered volcanics. Protolith looks epivolcaniclastic. Trace fine dark pyrite as selvages on calcite veins locally. Minor reutting calcite veins are locally slightly vuggy. Intvl 43.40-43.70 contains 30% pyrite as bands parallel foliation and bedding.											
45.23	46.00		ARGI	3G	BD	FO			18	19	BD/1/60	FZ/1/15	Py/DS/0.1
		Moderately soft, noncalcareous, dark gray, thinly bedded shale. Contains thin interbeds of pale tan to greenish tan altered volcanics. Volcanic intervals 2-5cm thick. Unit pervasively foliated. Core very broken. Bottom contact fracture and bxn zone with altered volcanics. Minor disseminated euhedral pyrite.											
46.00	47.75		MFCA	9T	FO	BD	MS				BD/1/70		Py/DS/0.1
		Moderately soft, pale tan, noncalcareous altered volcanics. Fine grained and phyllitic. Interbanded massive and thinly bedded intervals. Minor pyrite stringers parallel pervasive foliations. Bedding on scale 0.5-3cm. Massive intervals up to 1m thick. Incipient bxn for top 0.5m of interval.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
38.43	39.50	17233	0.78	TR	
39.50	40.50	17234	1.00	TR	
40.50	41.50	17235	0.82	TR	
41.50	42.50	17236	0.83	TR	
42.50	43.50	17237	0.79	0.31	
43.50	44.50	17238	0.88	0.21	
44.50	45.23	17239	0.60	0.10	
46.00	47.00	17240	0.64	0.03	
47.00	47.75	17241	0.62	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigage
June 07, 1995

c:\data\expl-geo\litho1.wk3 DDH G95UG 131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
47.75	50.79		MFFL	3G	AM	FO	MS		0	0	FO/0/70		HE/DS/1	47.75	48.30	17242	0.45	0.14	
		Dark green, soft, moderately calcareous, massive, foliated chloritic greenstone.																	
		Amygdules pale green, with verry irregular outline — up to 1cm across. Upper and												50.19	50.79	17243	0.57	TR	
		lower contacts are sharp. Uppermost and lowermost 0.6m intervals are altered to reddish																	
		tan Alteration contact gradational. Core intact - recovery good.																	
50.79	56.70		MFCA	TA	BD	FO			14	19	BD/2/50		Py/DS/2	50.79	51.70	17244	0.78	TR	
		Thinly bedded, soft, noncalcareous, pale tan to pale greenish grey micaceous phyllite. Pyrite												51.70	52.70	17245	0.75	TR	
		as irregular dark streaks and aggregates parallel to bedding. Foliation subparallel bedding												52.70	53.70	17246	0.88	TR	
		Interval 52.70 - 53.70m contains abundant bright green "muscovite" Int'l 53.70 - 54.70												53.70	54.70	17247	0.85	TR	
		contains abundant coarse white dolomite-quartz vein material. Core slightly broken to												54.70	55.70	17248	0.90	0.21	
														55.70	56.70	17249	0.86	0.07	
		moderately broken. Upper contact change from massive altered greenstone (last unit) to bedded																	
		altered volcaniclastics. Lower contact marks appearance of grey argillite in package.																	
		Crenulations folds in core @ 55.80m																	
		UP DDH ←  Bedding																	
56.70	62.85		ARGI	SA	BD	GO	BX		24	18	BD/2/75	FZ/3/20	Py/PT/10	56.70	57.40	17250	0.62	0.14	
		Intermixed argillite and strongly altered volcanics. Banding on scale 10cm - 1m. Argillite is dark												57.40	58.52	17251	0.83	0.96	
		grey, thinly bedded, hard, locally slightly calcareous. Core locally see isoclinal folding in bedding												58.52	59.50	17252	0.80	0.65	
		(56.90m) Crosscut by thin dolomite-quartz veins. Altered volcanics soft, noncalcareous, massive																	
		to thinly bedded, pale grey to greenish grey. Int'l 57.40 - 59.50 dominantly massive.																	
		altered volcanics with patches of fine grained pyrite aggregates. Pyrite crudely elongate in																	
		foliation but irregular in detail. Pyrite 10% of interval. Entire unit moderately to verry																	
		broken with incipient shears and gouges. Near E.O.I. bedding more disrupted with kink folds.																	
		Previous seems OK — not a major structure. - Associated w/ steep fractures (a acute angle core axis																	

L. Pigge
June 08, 1995

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\litho1.wk3 DDH G95UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
62.85	67.80		ARGI	AG	BD				0	19	BD/1/65	FZ/2/25							
		Same as last unit (56.70-62.85) only not structurally disrupted. Argillite 65% Consists of dark grey, moderately soft, noncalcareous, indistinctly bedded phyllite/argillite Minor to trace disseminated fine pyrite Volcanics are pale greenish grey, soft, finely bedded, noncalcareous phyllite. Marginal contacts are sharp locally minor marcasite. Local bx zones 15° core axis. Bottom contact 5cm shear - same orientation																	
67.80	69.29		MFCA	BL	MS	VN			12	12	DV/2/80								
		Medium browns to tans, moderately soft, noncalcareous, massive, fine-grained altered volcanics. Minor dolomite ± quartz veins up to 5cm thick. Veins locally vuggy with small xtals. Upper contact thin fault. Lower contact gradational contact with unaltered greenstones												67.80	68.50	17253	0.51	0.07	
														68.50	69.29	17254	0.65	0.10	
69.29	71.35		MFFL	MG	BN				0	0									
		Moderately hard, mottled to banded, slightly calcareous, medium dark green greenstones. Fine grained Contains patches of biotite (brown) and epidote (bright green). Core intact Unaltered version of immediately overlying unit Minor quartz white calcite veins. Contact with next unit not sharp - goes into fine-grained 'chilled' zone																	
71.35	74.50		MFFL	3G	MS				0	0	CV/1/20		Py/DS/0.1						
		Dark bluish green, massive, hard, slightly calcareous greenstone Medium fine grained Trace pyrite as disseminated irregular aggregates. Core intact 10 cm chilled margin at Top. Sharply gradational change to altered greenstone at EOI.																	
74.50	81.28		MFCA	7A	MS				0	19	DV/1/05	DV/01/00	HE/DS/5	74.50	75.50	17255	0.76	0.14	
		Medium fine-grained, moderately soft, slightly calcareous (dolomitic?), medium light grey, equigranular, altered mafic volcanic. Altered variant of immediately overlying unit. Salt and pepper appearance as dark green mafics altered to biotite and feldspars to pale grey. Irregular dolomite ± quartz fracture/veins locally with fine/acicular hematite aggregates.												75.50	76.50	17256	0.87	Tr	
														76.50	77.50	17257	0.92	0.07	
														77.50	78.50	17258	0.94	0.07	
														78.50	79.50	17259	0.95	0.07	

L Pigage
June 09, 1995

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
														79.50	80.50	17260	0.89	0.03	
														80.50	81.28	17261	0.67	0.27	
81.28	83.00		MFCA	6A	MS	BX			28	29	FR/3/20		Py/PT/30	81.28	81.80	17262	0.48	1.71	
		Same as last unit Intvls 81.28-81.80 and 82.65-83.00 fractured and slightly bxiated with abundant fine dark yellow pyrite patches in bx matrix. Pyrite 50% of interval. Minor reddish hematite as thin selvages in dolomite veins.												81.80	82.65	17263	0.80	0.51	
														82.65	83.00	17264	0.33	2.09	
83.00	87.20		MFCA	8A	MS				12	29	DV/1/15		He/DS/15 Py/DS/0.1	83.00	84.00	17265	0.95	0.07	
		Similar to last 2 units only more strongly altered. Soft, pale tannish grey, slightly dolomitic, massive strongly altered, equigranular greenstones. Plagioclase mass soft chalky white (clays) Mafics now tan carbonate and/or reddish brown hematite. Very minor disseminated pyrite. Intvl 86.73-87.20 contains abundant (40%) irregular pyrite aggregates partly along fractures.												84.00	85.00	17266	0.97	0.07	
														85.00	86.00	17267	0.89	0.07	
														86.00	86.73	17268	0.68	0.03	
														86.73	87.20	17269	0.45	0.17	
87.20	89.98		LMST	9A	BD	BX			24	0	BD/1/50	FR/1/45	Py/PT/5	87.20	88.20	17270	0.95	0.03	
		Pale grey, thinly bedded, moderately hard limestone. Minor stylolitic textures - define an spaced fracture cluge. Bedding on scale 1-2cm. Interbeds of pale grey, soft, calcareous, foliated, highly altered greenstones. Interbanding on scale up to 1m. Volcanics slightly bxiated and contain irregular, fine-grained pyrite aggregates. Locally pale greenish colour in altered volcanics.												88.20	89.00	17271	0.76	0.31	
														89.00	89.98	17272	0.94	0.07	
		Upper contact of unit conformable. Contacts between limestones & volcanics conformable lower contact also conformable.																	

L. Pigage
June 08, 1995

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695 UG 131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
89.98	92.05		MFCA	8G	FO	MS	BX		24	14	FZ/2/30		Py/FR/2						
														89.98	91.00	17273	0.88	0.07	
														91.00	92.05	17274	0.90	0.10	
92.05	99.67		DOSB	6A	BD	CR			16	24	BD/2/45	FZ/1/35		92.05	93.00	17275	0.87	0.10	
														93.00	94.00	17276	0.91	Tr	
														94.00	95.00	17277	0.89	Tr	
														95.00	96.00	17278	0.90	Tr	
														96.00	97.00	17279	0.91	0.38	
														97.00	98.00	17280	0.94	Tr	
														98.00	99.00	17281	0.83	0.07	
														99.00	99.67	17282	0.55	Tr	
99.67	102.83		ARGI	3A	BD	GO	BX	CR	26	14	FZ/2/25	FR/1/50	BD/2/25	99.67	100.50	17283	0.74	0.27	
														100.50	101.65	17284	1.03	0.21	
														101.65	102.83	17285	1.01	0.21	
102.83	107.15		ARGI	6A	BD	CR			12	19	BD/1/20	FZ/1/15							

Light green, fine-grained, moderately soft, noncalcareous altered greenstone. Overall massive texture locally phyllitic and foliated. Local mariposite streaks & spots elongate in foliation. Incipient bxa development. Upper & lower contacts reasonably conformable. Incipient bxa & gouge zones along fractures. Fine pyrite also along fractures. Minor calcite veining

Medium dark grey, hard, indistinctly bedded, dolomitic quartzite — or quartzose dolomite or silicified dolomite. Spaced stylolites. Abundant scutting white calcite veinlets up to 5cm thick — these form a crackled texture. Not really bxiated. Upper contact conformable. Lower contact is fault zone — not a major fault. Bedding 1-3cm thick. Only trace pyrite

Minor thin dark grey argillite interbeds. Argillite contains disseminated, fine-grained pyrite aggregates parallel foliation. Pyrite argillite 5%. Argillite less than 5% of unit.
Crackling caused by ductility contrast with enclosing argillites and altered volcanics.
Stylolites — spaced fracture cleavage 50° w.r.t. core axis

Dominant rock type is dark grey, thinly bedded, moderately soft, noncalcareous argillite. Contains interbeds of pale grey, soft, noncalcareous, sericitic phyllite = altered volcanics. Banding on scale 1-5cm. Marginal contacts of sericitic phyllite are sharp. Interval gouged & locally bxiated on steep fractures. Bedding also steep. Minor fine pyrite in argillite as disseminated grains. Recovery OK.

70% of unit is thinly laminated, medium grey, moderately soft, noncalcareous argillite to phyllite. Foliation subparallel bedding. 30% consists of 1-5cm beds of pale tan to greenish grey, thinly laminated dolomitic, sericitic phyllite / altered volcanics. Marginal contacts are sharp. Minor qtz-calcite veining parallel bedding as well as scutting. Bedding very scale weak wrt core axis

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigage
June 09, 1995

c:\data\expl-geo\lithol.wk3

DDH G95UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALTN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
		At 106.35m have isoclinal fold defined by So bedding in phyllite/argillite											
		Bottom DDH → Top DDH											
107.15	108.54		MFCA	9G	BD	FO			0	19	BD/1/65		Py/DS/2
		Pale greenish grey, thinly bedded, slightly dolomitic, soft, sericitic phyllite. Protolith altered intermix (tuffs?) Coarsely breaks into flaker chips subparallel So=Si. Minor qtz-carbonate veins parallel So/Si. Pyrite disseminated as streaks and fine aggregates elongate parallel So=Si.											
108.54	118.05		ARGI	4A	BD								locally marcasite spots
Bottom 1.5m altered volcanics very calcareous.		80% dark grey, soft, thinly bedded, noncalcareous phyllite/argillite. Trace pyrite disseminated as fine grains. Foliation subparallel So bedding. Breaks into thick flaker chips along So/Si. Contains 1-10cm interbeds of thinly bedded, pale greenish grey, slightly dolomitic sericitic foliated phyllite. Marginal contacts sharp. Progression sericitic phyllite increases down DDH. Protolith was mafic volcanic ash/tuff.											
118.05	126.57		MFCA	8A	BD	MS	FO		0	19	FO/0/80	LC/0/35	Py/DS/5 Hm/DS/15
		TOI-120.95 Pale tan to pale greenish grey, moderately soft, foliated, sericitic phyllite. Top 0.5m very calcareous; remainder slightly calcareous to noncalcareous. Minor disseminated fine pyrite 2%											
		120.95-125.71 Difficult to pale grey, massive, equigranular, medium-fine grained highly altered greenstone. Minor disseminated pyrite aggregates. Abundant small brown to grey hematite disseminated. Some											Py/DS/2
		calcite veining - locally with coarse specular hematite. Marginal contacts are sharp.											
		125.71-126.57 Moderately soft, pale green, slightly calcareous, foliated, sericitic chlorite phyllite. Minor subhedral pyrite grains up to 2mm across. Upper and lower contacts are sharp. Lower contact is small fault zone.											

FROM	TO	SAMPLE #	RECOV	Au g/t	Ag g/t
118.05	119.00	17286	0.80	0.03	
119.00	120.00	17287	0.89	0.07	
120.00	120.95	17288	0.92	0.07	
120.95	122.00	17289	0.87	0.03	
122.00	123.00	17290	0.86	TR.	
123.00	124.00	17291	0.90	0.17	
124.00	125.00	17292	0.95	TR	
125.00	125.71	17293	0.67	0.27	
125.71	126.57	17294	0.83	0.24	

L Pigge

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

June 10, 1995

c:\data\expl-geo\lithol.wk3

DDH 6954G131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
126.57	130.24		DOSB	6A	MS	BX			22	22	BD/2/75	Fr/3/25	Py/DS/0.1
		Medium grey, moderately hard, slightly to moderately calcareous, massive carbonate. Dolomite with lesser lenses of pale grey to dark grey chert. Locally brecciated texture - clast supported, angular clasts up to 1cm across. Core very broken and rubbly below 128.10m. Only trace pyrite noted as brassy yellow, fine, disseminated grains											
130.24	131.55		DOSB	6A	MS								
		Medium grey, carbonate sand and angular gravel. Recovery about 50% Sand 130.24-131.55											
131.55	133.20		DOSB	6A	BD								
		Medium grey, thinly bedded, hard, dolomite rubble. Largest piece 3cm across. Intvl 131.67-133.20m has 0.08m rounded, reDrilled pebbles of core. Recovery obviously poor. Major bra/fault structure starts with previous unit (130.24-131.55)											
133.20	144.15		CHSB	2A	BX	BD			28	29	BD/2/60	Fr/2/45	Py/DS/TR 0.1
		Dark grey to black, very hard, noncalcareous, thinly bedded chert. Has ribbon-bedded appearance with thin, soft, black, sooty, carbonaceous bands between chert beds. Brecciated - clast supported with clasts up to 1cm across. Very minor calcite-quartz veining. Trace fine disseminated brassy subhedral pyrite - also commonly concentrated in soft carbonaceous bands. Poor recovery in parts											
		TDI - 140.82 Core very broken. Bra textures. Abundant sooty black disrupted carbon surfaces 140.82-144.15 Rubble gravel in core box. Drill note of sand @ 142.34. Poor recovery Intvl 142.95-143.87 has 5 cm core pieces. Bedding denoted by interlayering of smoky chert beds and recessive, silky beds on 1-5cm scale.											

FROM	TO	SAMPLE #	RECOV	Au g/t	CHEMEX Au g/t
126.57	127.50	17295	0.83	0.24	
127.50	128.50	17296	0.90	0.14	
128.50	129.10	17297	0.54	0.31	
129.80	130.24	17298	0.79	0.31	
130.24	131.55	17299	0.42	0.21	
131.55	131.67	17300	0.08	0.07	
131.67	133.20	18001	0.06	0.31	
133.20	134.20	18002	0.76	0.27	
134.20	135.20	18003	0.82	0.14	
135.20	136.25	18004	0.73	0.31	
136.25	137.16	18005	0.41	0.17	
137.16	138.07	18006	0.58	0.24	
138.07	139.10	18007	0.63	0.10	
139.10	140.10	18008	0.79	0.10	
140.10	140.82	18009	0.59	0.10	0.07
140.82	142.34	18010	0.25	0.38	0.07
142.34	144.15	18011	0.39	0.07	0.07

Au

June 11/1995
L. Pigage

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

c:\data\expl-geo\lithol.wk3 DDH 695UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	AUN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT
144.15	149.96		CHRT	3A	BD				14	29	BD/1/50	BD/1/45	Py/DS/TR
		Dark grey, very hard, thinly bedded, slightly calcareous chert. Nail leaves metal on cut surface. Bedding defined by 0.2-2cm silty interbeds which weather with slightly recessive porous appearance. Trace brassy yellow pyrite along late fractures. Minor thin white calcite veinlets. Bedding surfaces are dull silty black and only slightly mark fingers when rubbed. Breaks into thick poker chips along bedding. Bedding not structurally disrupted.											
149.96	151.76		DOLO	6A	BX	GO	BD		28	0	BD/1/20	LG/0/60	Py/PT/2
		Medium light grey, thinly bedded, sugy, slightly calcareous carbonate. Core has silty appearance on cut surface. Core brxiated and gouged incipiently. Pyrite as aggregates and patches occurring within fractures and thin shear zones. Clasts within gouged areas up to 3cm across - clast supported. Top 10cm has tan brown weathered colour.											
151.76	157.65		DOSB	8A	BX	BD			26	26	BD/1/30	FZ/0/60	Py/DS/0.1
		Pale grey to off-white, thinly bedded, hard dolomite. Bedding marked by thin grey laminae on 0.5-10 cm spacing. Starting at 152.70m this rock type is extensively brxiated. White angular clasts up to 2cm across in a medium to dark grey matrix. Only very minor euhedral pyrite grains disseminated in brx matrix. Brx is clast supported.											
		Bedding in upper most sample interval 30° w.r.t core axis. Upper contact brx zone 65° w.r.t. core axis. Clasts are 50-60% of unit. ? Instead of major fault brx-cover this possibly be edge of fault or broken fold brx?? Lower contact 70° w.r.t core axis.											

FROM	TO	SAMPLE #	RECOV	Au g/t	CHEMEX Au g/t	% S
144.15	145.15	18012	0.45	0.45	Tr	
145.15	146.15	18013	0.69	Tr	Tr	
146.15	147.15	18014	0.71	Tr	Tr	
147.15	148.15	18015	0.88	0.34	Tr	
148.15	149.00	18016	0.54	0.14	Tr	
149.00	149.96	18017	0.41	0.89	Tr	
149.96	151.20	18018	0.37	1.51	0.27	
151.20	151.76	18019	0.53	2.30	0.20	
151.76	152.70	18020	0.89	1.82	1.63	
152.70	153.70	18021	0.93	3.26	3.74	0.64
153.70	154.70	18022	0.88	2.16	2.45	
154.70	155.70	18023	0.94	2.78	2.92	
155.70	156.70	18024	0.96	1.37	1.09	
156.70	157.65	18025	0.91	0.14	0.20	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

L. Pigage
June 11, 1995

c:\data\expl-geo\lithol.wk3

DDH 95UG131

FROM	TO	FLAG	ROCK CODE	COLOR	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUCT INT	ALIN INT	STRUCT 1 FT/TH/AN	STRUCT 2 FT/TH/AN	MINERALIZATION MINERAL//HOW//AMOUNT	FROM	TO	SAMPLE #	RECOV	Au g/t	CHEMEX Au g/t
157.65	158.62		DOSB	6A	BX				28	0				157.65	158.62	18026	0.94	0.31	1.63
		Medium to medium dark grey, carbonate bxa. Moderately soft dolomite. Clasts angular in a carbonaceous																	
		+ sulphide bearing sand to silt matrix. Clast supported with clasts up to 2cm across 60% clasts. Pyrite as																	
		irregular stringers in bxa matrix. Stringers of dark grey contain small irregular grob/grains of brassy yellow																	
		pyrite. Strong stylolite development throughout.																	
158.62	166.30		DOSB	8A	BX	BD			26	0	BD/1/15			158.62	159.60	18027	0.83	0.34	0.14
		Same as Unit 151.76 - 157.65 Thinly bedded, light grey, moderately hard, dolomite. Bedding												159.60	160.63	18028	0.86	0.07	0.20
		locally intact - commonly disrupted in clast supported "tectonic" bxa zones. Bxa zones have white												160.63	161.60	18029	0.91	0.58	0.48
		dolomite clasts in medium grey matrix. Only trace pyrite. Broad fold nose @ 159.4m. Bedding												161.60	162.60	18030	0.77	Tr	0.27
		at acute angle core axis												162.60	163.60	18031	0.91	0.34	Tr
														163.60	164.60	18032	0.94	4.29	1.43
														164.60	165.50	18033	0.75	1.75	1.43
														165.50	166.30	18034	0.63	0.24	0.14
166.30	166.40		BSDy	2N	MS				0	0	46/0/55	66/0/35		166.30	166.40	18035	0.08	0.10	0.07
		This sliver of fine-grained, very dark grey, soft basaltic dyke. Margins of dyke have medium																	
		green selvage/tinge																	
		UP DDH CARBONATE BSDy CARBONATE																	
		Dyke is very soft & broken. ("clay like").																	
166.40	168.25		DOSB	7W	BX	BD	CR	SH	24	24	SH/3/70		PY/VN/.5	166.40	167.33	18036	0.88	0.72	0.54
		Pale white to grey ± black sections; Mod patchy sil"; Brxx is re-healed & matrix supported												167.33	168.25	18037	0.82	0.14	0.14
		167.04: 8 cm wide shear & brxx ± clay gouge.																	
		1% brassy f.g.ed py on fracs & diss ed; Occasional stylolites.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 14, 1995

DDH 695 UG 131

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
168.25	173.59		DOSB	4N	BX	BD	SH	VG	24	22	PY/VN/.5	168.25	BD/0/35
			Brxx is re-healed, matrix supported & angular; Weak local silⁿ									169.30	SH/3/60
Sand seam marked by drillers @ 169.77 m			of brxx clasts; 0.5% extremely f.g.ᵉᵈ grey sxˢ on fracˢ;										
			Occasional dissᵉᵈ f.g.ᵉᵍ. brassy py.; Core is highly										
			fracᵉᵈ.										
173.59	174.35		BSDY	3N	MS				0	0			
			Rock is soft & "clay-like".										
174.35	178.92		DOSB	4N	BX	CR	MS	VG	24	22	PY/VN/.5		
			Essentially the same as 168.25 – 173.59; Core is generally										
			badly ground & recoveries are poor.										
178.92	183.49		LOST										
			Core is extremely ground (mainly to sand) & recovery										
			is extremely poor. The exact origin of these fragˢ										
			is not really known.										
			At around 182.87 m (600') a bag of core was recovered										
			from the drill & sampled (itˢ exact origin is also unknown).										
			All core from this interval is the same rock as interval 174.35 – 178.92.										

FROM	TO	SAMPLE#	RECOV	AU G/T	CHEMEX Au g/t
168.25	169.25	18038	0.45	0.38	0.27
169.25	170.25	18039	0.26	1.89	1.36
170.25	171.25	18040	0.14	TR	1.09
171.25	172.25	18041	0.11	1.68	1.36
172.25	173.59	18042	0.09	1.95	1.16
173.59	174.35	18043	0.06	0.98	0.41
174.35	175.35	18044	0.31	1.03	0.88
175.35	176.35	18045	0.26	2.23	1.63
176.35	177.35	18046	0.12	0.14	0.61
177.35	178.35	18047	0.19	0.55	0.34
178.35	178.92	18048	0.10	1.71	1.09
178.92	183.49	20999	0.03	1.10	0.82
182.87		21000		1.20	0.82

bag of core.

* Not for Data

G:\DATA\QPRO\FORMS\LITHO95.WB2

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: JUNE 14, 1995

DDH 695 UG 131

PAGE 14 OF 17

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~8%~~ CHEMEX Au
183.49	184.87		DOSB	4N	Bx	CR	MS	VG	24	22	PY/VN/.5			183.49	184.87	18049	0.34	0.38	1.77
		Same as interval: 174.35 - 178.92.																	
184.87	185.18		BSDY	2N	MS	SH			24	0		185.00	SH/2/—	184.87	185.18	18050	0.03	0.89	0.48
		Most of rock is soft & "clay-like" including a 3 cm interval of clay gouge.																	
185.18	188.67		CHSB	5N	Bx	BD	VG		26	28		186.54	BD/1/35	185.18	186.18	18051	0.08	0.75	0.68
		Med black to dark grey; 70% of rock is matrix supported, re-healed, sub-angular brxx; 80% of rock is strongly siled; No visible sxs. 186.54 - 187.15: Highly shattered core.												186.18	187.18	18052	0.18	0.24	0.07
														187.18	188.18	18053	0.19	0.27	0.07
														188.18	188.67	18054	0.10	0.17	TR
188.67	189.59		LOST																

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~S%~~ CHEMEX Au
189.59	193.01		GOUG	3A	SH	BD	CR		29	26	PY/VN/1 | MU/VN/5	191.07	BD/1/40	189.59	190.59	18055	0.25	4.62	3.67
			Host rock is grey to black banded MFCH (60%),									191.36	SH/1/40	190.59	191.59	18056	0.86	0.51	0.41
			ARGI (30%), DOSB (10%); 90% of core is highly									193.01	LC/1/35	191.59	192.59	18057	0.94	0.21	0.14
			sheared; DOSB frag^{s} are variably sil^{ed}; 0.5% extremely											192.59	193.01	18058	0.36	0.14	0.07
			f.g.^{ed} sx^{s} on frac^{s}; 0.5% brassy f.g.^{ed} py on frac^{s}																
			& diss^{ed}.																
193.01	193.56		MFCH	6T	BD	CR	SH		16	24	PY/VN/.5 | MU/VN/1	193.07	SH/1/60	193.01	193.56	18059	0.39	0.21	TR
			Local crackled sections & loc minor shears; Local minor																
			patchy sil^{n}; 0.4% brassy f.g.^{ed} py on frac^{s} &																
			diss^{ed}; 0.1% local extremely f.g.^{ed} grey sx^{s} on frac^{s}.																
193.56	197.73		LMBX	8W	MS	CR	BX		16	14	PY/VN/1			193.56	194.56	18060	0.83	0.14	TR
			white to locally grey; 197.20 – 197.73 : Dolomitized portion;											194.56	195.56	18201	0.81	0.27	TR
			Stylolites are common; 1% brassy f.g.^{ed} py on frac^{s}											195.56	196.56	18202	0.79	0.55	0.48
			& diss^{ed}; 0.5% extremely f.g.^{ed} grey sx^{s} on frac^{s}.											196.56	197.73	18203	0.97	Tr	TR
197.73	201.19		MFCA	SH	BX	CR	SH		28	24	PY/BM/.2 | HE/SP/.1	199.33	SH/1/55	197.73	198.73	18204	0.94	0.62	TR
			70% very matrix dominant, partially re-healed brxx w									199.38	SH/1/70	198.73	199.73	18205	0.96	0.03	TR
			sub-rounded rotated clasts – matrix is black w loc									200.62	SH/1/70	199.73	200.73	18206	0.90	0.03	TR
			extremely f.g.^{ed} grey sx^{s}; 10% crackled & brxx^{ed}											200.73	201.19	18207	0.41	0.17	TR
			DOSB & LMBX; 198.82 – 199.74 : Non re-healed brxx &																
			shear; Overall py is: 2% extremely f.g.^{ed} & grey on																
			BM & frac^{s} / 1% f.g.^{ed} brassy diss^{ed} & on frac^{s}.																

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 16, 1995

DDH 695 06 131

CHEMEX ALL

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~SB~~
201.19	202.00		LMBX	5W	CR	MS	SH		24	18	PY/VN/1 // HE/SP/.1	201.63	SH/3/60	201.19	202.00	18208	0.62	Tr	Tr
{ Reduced to BQ @ 201.77 m }			LMST is 70% crackled & 30% massive; 1 sub-interval of sheared & interbedded MFCM/ARGI noted. 201.77-202.00: Slightly ground core; The MFCM has spots of hem; Graphitic stylolites common in the LMST; Py in the LMST is: ~2% extremely f.g.ed grey ex on fracs. ~0.5% f.g.ed brassy on fracs + diss.ed.														
202.00	202.84		MFCA	2A	BX	BN	SH		28	24	PY/DS/.1 // HE/SP/.1	202.78	BN/1/60	202.00	202.84	18209	0.53	0.24	Tr
			med tan MFCA w dark grey matrix; 80% partially re-healed matrix supported, sub-rounded brxx w dark grey graphitic matrix / 20% banded MFCA; minor local shears; Py is f.g.ed, brassy & rare diss.ed.																
202.84	213.67		MFCA	3T	BD				0	12	PY/DS/.1 // HE/VN/2 // MV/VN/.5	206.44	BD/1/40	202.84	203.84	18210	0.99	0.03	Tr
			Generally dark tan to grey to green; original rock is MFAS; Loc intervals of fresh green chloritic MFAS; Sericite occurs as loc alt.n of small clasts & also on fracs; 0.5% scattered qtz/carb stringer (1-5 mm); Py rare, f.g.ed & brassy.									210.86	FR/0/45	203.84	204.84	18211	0.82	0.07	Tr
												211.80	BD/0/65	204.84	205.84	18212	0.78	0.10	Tr
												212.15	FR/0/40	205.84	206.84	18213	0.79	Tr	Tr
213.67	227.08		MFCA	5T	BD	MS			12	24	PY/DS/.5 // HE/VN/.1 // FU/SP/.1 // MV/VN>SP/1	217.69	BD/0/60						
			Generally tan w local/ frosh green chloritic MFAS; All rock is originally MFAS; Occasional minor thin shears; 1% scattered qtz/carb stringers (1 mm - 1 cm).									225.80	SH/1/30						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: J F B

Date: June 16, 1995

DDH 695 UG 131

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
227.08	232.25		MFAS	3G	BD	MS			0	0	cpy/VN/.1 mu/VN/.5 py/DS/.5 HE/VN/.1	228.14	SH/0/55						
		Loc minor intervals of MFCA; All core is pervasively										231.07	FR/0/55						
		carbonatized & all green core is pervasively chloritic;																	
		Rare thin shears; 0.5 % scattered qtz/carb stringers (1-5mm)																	
		EOH = 232.25 m																	

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GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/W

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17201	UG 131	.21				
2		TR				
3		.07				
4		.14				
5		TR				
6		TR				
7		.03				
8		TR				
9		.07				
210		.03				
1		.03				
2		TR				
3		TR				
4		TR				
5		TR				
6		TR				
7		.10				
8		.14				
9		TR				
220		.07				
1		.03				
2		.27				
3		TR				
17224		.31				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/W

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17225	UG 131	.03				
6		.31				
7		TR				
8		.14				
9		.07				
230		.03				
1		TR				
2		.03				
3		TR				
4		TR				
5		TR				
6		TR				
7		.31				
8		.21				
9		.10				
240		.03				
1		.07				
2		.14				
3		TR				
4		TR				
5		TR				
6		TR				
7		TR				
17248		.21				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 16, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/W.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17249	UG 131	.07				
250		.14				
1		.96				
2		.65				
3		.07				
4		.10				
5		.14				
6		TK				
7		.07				
8		.07				
9		.07				
260		.03				
1		.27				
2		1.71				
3		.61				
4		2.09				
5		.07				
6		.07				
7		.07				
8		.03				
9		.17				
270		.03				
1		.31				
17272		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 12, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/W

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17273	UG 131	.07				
4		.10				
5		.10				
6		TR				
7		TR				
8		TR				
9		.38				
280		TR				
1		.07				
2		TR				
3		.27				
4		.21				
5		.21				
6		.03				
7		.07				
8		.07				
9		.03				
290		TR				
1		.17				
2		TR				
3		.27				
4		.24				
17295		.24				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 12, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D/G

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
17296	UG 131	.14				
7		.31				
8		.31				
9		.21				
300		.07				
18001		.31				
2		.27				
3	UG131	.14				
4		.31				
5		.17				
6		.24				
7		.10				
18008		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: June 13/95

MINE ASSAY REPORT (ASSAY SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
VG131 18009		0.10				
10		0.38				
11		0.07				
12		0.45				
13		TR				
14		TR				
15		0.34				
16		0.14				
17		0.89				
18		1.51				
19		2.30				
DH268 18116		7.44				0.02
17		4.97				0.02
18		0.68				
19		1.34				0.02
20		1.75				0.02
21		0.55				
22		TR				
23		0.14				
24		0.07				
25		2.40				0.01
26		0.17				
27		1.06				0.02
28		1.10				0.03

GOLDEN BEAR OPERATING COMPANY

DATE: June 13/95

MINE ASSAY REPORT (ASSAY SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
UG13118020		1.82				
21		3.26				0.64
22		2.16				
23		2.78				
24		1.37				
25		0.14				
26		0.31				
27		0.34				
28		0.07				
29		0.58				
30		TR				
31		0.34				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 16/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S= %
UG130 17313		0.65				
UG131 18032	—	4.29				
33	—	1.75				
34		0.24				
35		0.10				
36		0.72				
37		0.14				
38		0.38				
39	—	1.89				
40		TRACE				
41	—	1.68				
42	—	1.95				
43		0.48				
44	—	1.03				
45	—	2.23				
46		0.14				
47		0.55				
48	—	1.71				
49		0.38				
50		0.89				
51		0.75				
52		0.24				
53		0.27				
54		0.17				

GOLDEN BEAR OPERATING COMPANY

DATE: June 17/93

MINE ASSAY REPORT (ROCK SAMPLES)

ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG13118059		0.2				
60		0.17				
18201		0.27				
02		0.55				
03		TR				
04		0.62				
05		0.05				
06		0.03				
07		0.17				
08		TR				
09		0.24				
10		0.03				
11		0.07				
12		0.10				
13		TR				
UG13218374		TR				
75		TR				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # GRSUG132 PROJECT AREA: GRIZZLY SECTION: 23800

DRILL HOLE LOCATION DATA

EASTING: 25048.322

NORTHING: 23800.478

ELEVATION: 977.113 m

HOLE LENGTH (M): 186.07 m

DRILL DIARY

STARTING DATE: 16/06/95 (DD/MM/YYYY)

COMPLETION DATE: 18/06/95 (DD/MM/YYYY)

LOGGED BY: DLC RIG: CONNORS

CONTRACTOR: ADV CORE SIZE: NQ

SURVEYED BY: PH EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	268.390	-68.820	SURVEY
1	60.96	273.0	-67.8	SPERRY
2	121.91	273.0	-66.9	SPERRY
3	186.07	274.0	-66.6	SPERRY
4				
5				

PURPOSE: GRIZZLY DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	11.58	MFCA		132.80	134.80	MFCA	
11.58	13.11	LOST		134.80	147.00	MFAS	
13.11	22.25	MFCA		147.80	150.90	LMST	
22.25	23.44	BSDY		150.90	159.55	DOSB	
23.44	27.67	MFCA		159.55	160.40	GOUG	
27.67	44.03	MFLP		160.40	163.87	MFCA	
44.03	48.41	MFCA		163.87	165.13	LMST	
48.41	55.57	MFEP		165.13	167.03	MFCA	
55.57	89.70	MFCA		167.03	167.75	DOXB	
89.70	90.12	GOUG		167.75	175.16	MFCA	
90.12	93.07	MFCA		175.16	178.15	MRGI	
93.07	94.80	GOUG		178.15	186.07	MFCA	
94.80	97.15	MFCA					
97.15	98.05	GOUG					
98.05	100.00	MFCA					
100.00	101.85	GOUG					
101.85	109.36	LMSL					
109.36	110.60	GOUG					
110.60	120.52	MFCA					
120.52	121.10	GOUG					
121.10	128.40	MFCA					
128.40	132.80	MFAS					

COMMENTS:
Block 393' mislabelled (should be 388') → Not corrected for as all of hole was logged by the time the error was discovered.

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 15, 1995

DDH 695 UG 132

PAGE 1 OF 12

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	11.58		MFCA	TG	BD				0	24	PY/DS>VN/2 // MV/SP+VN/2 // HE/VN/2 // FU/SP/.1	5.13	BD/0/70						
		med tan to green to red; original rock is mFTF; 2-3% qtz/carb stockwork ($\frac{1}{2}$-5mm); Py is f.g.ed to m.g.ed, fresh & brassy.										9.75	BD/0/50						
												9.13	FR/0/30						
												9.22	FR/0/60						
11.58	13.11		LOST																
		Core missing due to a mislatch.																	
13.11	22.25		MFCA	6T	BD				0	24	PY/DS/1 // HE/VN/1 // MV/SP>VN/1	20.40	BD/0/55						
		Colour generally tan w/ a 1m interval at the top of dark green; original rock = mFAS; 0.5% qtz/carb stringers ($\frac{1}{2}$-5mm).																	
22.25	23.44		BSDY	1N	PP	AM			0	0		22.25	UC/0/60						
		Several pyroxene phenos + calcite filled amygdules; The mFAS above the UC has been cooked for about 20 cm.										23.44	LC/0/35						

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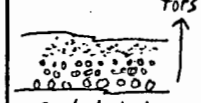
NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 16, 1995

DDH 695U6132

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	Au CHEMEX %
23.44	27.67		MFCA	TA	BD	BX	CM		14	28	PY/FT/.10 MV/SP/.5 // HE/VN/.1 FU/SP/.1	27.42	FR/0/60	23.44	24.44	17374	0.99	Tr	Tr
		10% matrix supported, re-healed, rounded clast brxx / 10% re-healed crackle brxx / 80% bedded MFCA (originally MFAS). Py occurs in large patches, as fillings within crackle & brxx zones & along frac's; 0.5% qtz/carb stringers (1-5 mm); locally, lim occurs on frac's.										27.54	BD/0/50	24.44	25.44	17375	1.02	Tr	Tr
27.67	44.03		MFLP	3G	BD				0	12	HE/VN/.5 // MV/SP>VN/.1 LI/VN/1	31.25	BD/0/65						
		Variable from lapilli to ash to crystal rich tuff; minor interbands of tan MFCA; 0.5% qtz/carb stringers (1 mm-3 cm).										40.48	BD/0/65						
44.03	48.41		MFCA	8T	BD	SH			12	26	PYIDS/2 // HE/VN/.2 MV/VN/1	45.23	BD/0/65						
		Original rock = fine bedded MFAS; Lim locally on frac faces; several very thin shears w/ talc/sericite coatings.										46.03	SH/0/60						
48.41	55.57		MFEP	GN	BD				0	14	PY/DS/1 // HE/VN/.1 CL/PV/10	48.55	BD/1/80						
		Core consists of: 70% tightly interbedded MFEP & ARGI, 15% tan MFCA subintervals & 15% dark green MFEP; Much graded bedding noted showing tops towards top of hole; Brassy f.g.ed py occurs along bedding & frac's & as disseminations. Occasional thin calcite stringers; All core is pervasively carbonatized.										54.20	BD/1/70						



Graded beds

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 17, 1995

DDH 695 UG 132

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT		STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~8%~~ AU CHEMEX
55.57	58.00		MFCM	A T	BD				12	28	PY/VN/10	HE/PT/.1	55.70	FR/0/70	55.57	56.57	17376	0.94	0.69	TR
		Light tan MFCM ± dark grey py bands & occasional dark											57.00	BD/0/70						
		grey ARGI bands; 10% brassy py accumulations occur in																		
		re-healed fracs, along bedding & as dissns.																		
58.00	72.97		MFCA	7 T	BD				0	24	PY/OS/	MV/BD/.5	60.72	BD/0/50						
											HE/VN/.	FV/BD/.1								
		Original rock = MFEP ± local graded bedding; Rare											71.27	FR/0/40						
		thin shears ± sericitic gouge; several micro-folds noted.																		
		58.00 – 58.30 : Highly broken core ± thin sericitic shears.																		
		Py is dissed & along fracs.																		
micro fold noted at 66.26 m																				
72.97	74.06		MFCA	T A	BD	BN			0	26	PY/BN/5	MV/SP+VN/.5	73.12	SH/0/35	72.97	74.06	17377	1.14	0.03	TR
		Tan MFCA ± grey py bands (5-7%); 1 irregular qtz																		
		veinlet noted (1-4 cm wide); 1 thin sericitic shear noted.																		
74.06	76.46		MFCA	7T	BD				0	24	PY/DS/1	MV/BD/.5	74.82	FR/0/50						
											HE/VN/.5									
		Essentially the same as interval: 58.00 – 72.97.											75.39	BD/0/50						

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: J F B

Date: June 17, 1995

DDH 695 UG 132

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~8%~~
76.46	77.56		MFCM	3A	BD	BN			0	26	PY/BN/5			76.46	77.56	17378	1.11	0.21	Tr
		Essentially the same as interval: 72.97–74.06.																	
77.56	83.91		MFCA	4T	BD				12	24	PY/DS/1 HE/VN/. MV/BD/5 FU/BD/.	78.55	BD/0/40						
		original rock is MFEP → fine bedded ± local grading; minor										83.30	SH/0/30						
		loc. ARG interbeds; sericite occurs: along bedding, on some																	
		frac's & as alt'n of some small clasts; Rare loc thin shears.																	
		78.55–78.61: short band of matrix supported, re-healed																	
		angular brxx which is parallel to bedding; Rare thin Q/c stringers.																	
83.91	85.58	FZ	MFCA	6T	FR	VN	GO	CR	26	24	PY 2%/2%/1 HE TRACE	84.05	SH/5/30	83.91	85.58	17379	1.81	0.03	Tr
FAULT @ 85.00 050° SHEAR TO 85.58		Vn quartz 15 cm @ 050° shears distinct										85.06	SH/5/30						
		with gouge infills @ 050. very distinct										83.91	LC/						
		shear pattern as of 050-										85.58	LC						
85.58	88.28		MFCA	6T	BD	BN			12	29	PY/5R/5	86.25	BD/1/50	85.58	86.25	17380	0.72	0.27	Tr
		Horny 10% v. Fine grained sulphides from										87.77	BD/1/40						
		85.58 – 86.25 BALANCE of section barren of PY.																	
		Bedding of ash tuff wavy to parallel.																	

Au CHEMEX

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: DLC

Date: 18/JUNE/95

DDH G95UG132

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~S%~~ CHEMEX AU
88.28	89.70		MFCA	6A	BD	CR			0	0	PY/DS/1 PY/ST/5	89.70	BD/0/70	88.28	89.70	17381	1.49	0.21	TR
		Thin bedded ash tuff with blebby & stringer brassy euhedral pyrite. Stringer py is almost always parallel to bedding except as in blebs																	
89.70	90.12	FZ	GOUG	6A	BX	CR			28	29	PY/DS/1	89.70	UC/0/70	89.70	90.12	17382	0.49	0.27	0.14
FAULT ZONE W/CARB BXX 		Large sense of displacement with subangular carb BXX in MFCA & GOUG HOST.										90.12	LC/0/90	?					
90.12	93.07		MFCA	6A	BD	BD			14	18	PY/DS/01 PY/ST/3	90.20	BD/1/70	90.12	91.12	17383	0.86	0.14	0.07
		THIN bedded - wavy from 050 → 070 → 045										91.30	BD/1/50	91.12	92.12	17384	1.18	0.07	TR
		PY follows bedding plane as parallel occurrence										92.12	BD/1/50	92.12	93.07	17385	0.99	0.24	TR
		PY brassy with dk grey sulfide matrix										92.87	BD/~~40~~/40						
93.07	99.80		GOUG	6A	GO	BX	CR		26	28	PY/ST/03	93.20	SH/3/45	93.07	99.80	17386	1.57	0.17	TR
		BRYX & REHEALED; ROTATED STRONG SENSE OF										99.60	SH/3/60						
		SHEAR @ 060-070 .PY as disseme + stringers										99.80	LC/1/70						
		parallel to shear sense.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: DLL

Date: 18/JUNE/95

DDH 6951/6132

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~S%~~ CHEMEX Au
99.80	97.15		MFGA	6A	BD	FR			12	14	PY/DS/1 PY/ST/1			99.80	95.80	17387	1.15	0.27	TR
			mild to wavy bedding - thin; classic bleached grey.											95.80	97.15	17388	1.39	0.34	TR
			PY as anism & planar bedding orientated stringers																
97.15	98.05		GOUG	6A	BX	GO			28	16	PY/ST/2/PY/DS/1			97.15	98.05	17389	0.97	0.27	TR
FAULTED & MULTIPLE SHEARS.			Rehealed, rotated clasts to 3 cm diameter - ripped up clasts from MFGA/LMST interbeds)																
			UC & LC gradational - need to get a SH &																
98.05	100.00		MFGA	6A	BD				12	16	PY/DS/01			98.05	99.00	17390	0.80	0.03	TR
			thin bedded with 1-3cm ARG1 interbeds & LMST											99.00	100.00	17391	0.95	0.31	TR
			+ chert 1 - 3cm interbeds																
100.00	101.85		GOUG	6A	BX	GO	CR		29	26	PY/DS/1 PY/ST/2	100.10	SH/0/GO	100.00	101.00	17392	0.92	0	TR
- FAULTED & MULTIPLE SHEARS.			Rehealed to solid core but 100% BX + MATRIX										UC/0/60	101.00	101.85	17393	0.80	0	TR
			PY is minor in places										LC/0/?						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	~~S%~~ CHEMEX ALL
101.85	107.18		LMSL	GW	BD	BX	SH		16	22	PY/ST/2	101.85	BD/1/80	101.85	103.00	17394	1.19	0.41	TR
		80% THIN BEDDED LMST WITH SILTSTONE, ARGILITE										104.50	BD/1/80	103.00	104.00	17395	1.17	0	TR
		INTERBEDS 1-6 CM WIDE = TO 20% OF CORE. 1-2										107.18	BD/1/70	104.00	105.00	17396	0.93	0	TR
		CM BEDS ASH TUFF - CRACKLE ZONES WITH SOME										106.18	SH/B/80.	105.00	106.00	17397	1.19	0.51	0.41
		MINOR ROTATION OF BEDS WITHIN THE CRACKLE.												106.00	107.18	17398	1.28	0.27	0.27
		SHEAR PLANES 1-5 cm RANDOM @ 0 80																	
107.18	109.36		LMSL	GW	BD	MS	CK		16	22	PY/ST/01	107.18	BD/0/80	107.18	108.20	17399	0.94	0.70	TR
		MASSIVE SILICIC LMST W CHERTY INTERBEDS = 70%										108.20	BD/1/80	108.20	109.36	17400	1.25	0.45	TR
		PY AS DS + STRG = 1%										109.36	BD/1/75						
109.36	110.60	FLT	GOUG	GW	BX	CR	GO		26	26	PY/DS/1 PY/BL/1	109.39	UC/1/80	109.36	110.60	19001	1.27	0.82	0.34
FAULT STRONG - REHEALED CARB.		LMSL + DOXB REGROUND & HEALED - TOTAL BRECCIATION										110.50	LC/1/70						
		W/ BOTH F.G. SULF & EUHED PY. MATRIX IS																	
		CARB WITH V.V. MINOR MFCA IN SECTION																	
110.60	114.90		MFCA	GG	MS	BD			0	24	PY/DS/1 PY/SP/1	114.50	SH/1/60	110.60	111.60	19002	1.01	0.55	TR
STRONGLY PYRITIC		LT,GRN SPOTTY - GREEN MICA MEASLED CORE.												111.60	112.60	19003	1.00	0.24	TR
		PY AS DIS + BLEBS IN F.G. GREY SULF & EUHED												112.60	113.69	19004	1.29	0	TR
		BRASSY PY. PY PATCHY IN AREAS TO 10%												113.69	114.90	19005	1.40	0.31	TR
		PY IS BLEBBY IN OTHER ZONES TO 3% PY OFTEN																	
		PARALLEL TO SENSE OF SHEAR.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: DLC

Date: 18/JUNE/95

DDH G95UG 132

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	CHEMEX AU S%
119.90	118.50		MFCA	6G	MS	BD			0	22	FU/DS/10	118.50	BD/0/70						
		BEDDING N/A - PERVASIVE GREEN MICA THROUGHOUT.																	
		GIVING LT GRN COLOUR MASSIVE; HOMOGENOUS.																	
		RELATIVELY UNALTERED OTHERWISE - NO PY TO																	
		MENTION.																	
118.50	120.52		MFCA	6A	BD	MS			0	22	PY/ST/10			118.50	119.50	19006	0.95	0.86	TR
PY ZONE		AS ABOVE WITH PY STRINGERS TO 10% STRINGER												119.50	120.52	19007	1.03	0.82	0.61
		ORIENTATION = TO BEDDING - 80% OF ACCURANCE.																	
120.52	121.10	FLT	GOUG	GA	BX	GO	CR		26	24	PY/ST/10			120.52	121.10	19008	0.07	0.38	0.27
FAULT — REHEALED CARB + MFCA		UK/LC INDISTINCT; MFCA 10% CARB 90%																	
		ROTATED SUB AUG BXX -																	
121.10	128.90		MFCA	GA	BD	SH			12	29	PY/DS/1 PY/SA/2	122.83	BD/0/70	121.10	122.40	19009	1.37	0.48	0.41
		ASH TUFF & ARGI INTERBEDDED W/ PY BLEBS &										129.40	BD/0/50	122.90	123.90	19010	0.96	0.21	0.07
		DISS SCATTERED THROUGHOUT. ARGI = 5% OF ALL												123.90	124.40	19011	1.10	0.17	0.14
		126.90 - 127.90 - MINOR SHEAR ZONE W/ PY = 5%												124.40	125.40	19012	1.03	0.38	0.14
														125.40	126.90	19013	0.89	1.06	0.34
														126.90	127.90	19014	1.05	0.31	0.34
														127.90	128.90	19015	1.07	0.48	0.20

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
128.40	132.80		MFAS	6G	MS						PY/DS/1		
		GREENSTONE - UNALTERED EXCEPT PATCHES OF											
		MFCA @ 131.80 - 132.80											
132.80	134.80		MFCA								PY/PT/5		
PATCHY PY		XTAL TUFF MILDLY ALTERED. PATCHY PY TO 5-10%											
		OVER 30 cm INTERVALS. PY BOTH BRASSY & V.F.G.											
		DARK GREY. HOST OTHERWISE MASSIVE WITH NO PLANAR											
		ORIENTATION											
134.80	147.00		MFAS	6A	MS	FO	STR				PY/DS/4 PY/PT/5		
PY PERVAS THRU SECTION		UNIFORM; SECTION MFAS MILDLY ALTERED; FLOODED											
		TO LT GREY - STRONGLY PYRITISED AS STRINGERS & BLEBS											
		STR & BLEBS UP TO 1-1.5 cm BRASSY EUHEDRAL IN											
		V.F.G. GREY SILP MATRIX. VERY UNUSUAL SECTION FOR											
		GR12-/NO BED -											

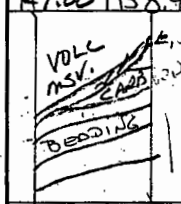
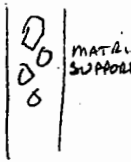
FROM	TO	SAMPLE#	RECOV	AU G/T	AU%	CHEMEX AU
132.80	133.80	19016	1.20	0.10	TR	
133.80	134.80	19017	1.81	0	TR	
134.80	136.00	19018	1.34	0.34	0.07	
136.00	137.00	19019	0.98	0.10	TR	
137.00	138.00	19020	1.07	0.38	0.27	
138.00	139.00	19021	0.99	0.45	0.34	
139.00	140.00	19022	1.02	0.10	0.34	
140.00	141.00	19023	1.01	1.06	0.34	
141.00	142.00	19024	0.73	0.72	0.68	CHEMEX AU
142.00	143.00	19025	1.01	0.21	7.24	0.27
143.00	144.00	19026	1.05	0.27	7.38	0.34
144.00	145.00	19027	1.00	1.58	8.59	2.65
145.00	146.00	19028	0.93	5.24/5.55	5.40	4.56
146.00	147.00	19029	1.07	2.40	9.98	1.29

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: DLC

Date: 18/JUNE/95

DDH 95-U6132

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
147.00	150.90		LMST	GA	BD	BD/	CR	VN	12	14	PY/5/01	147.00	LC/0/65°	147.00	148.00	19030	1.01	0.17		0.14
		KNIFE CONTACT, 5cm WIDE CONT ∠ 65° BEDDING @ 95° RUNNING INTO CONTACT - (NOT CONFORM) CARB VEINED; CHERT INTERBEDS 1-1 cm WIDE, BLOCKS 1-2 cm² BROKEN, MOVED & RECEMENTED WITHOUT MUCH SENSE OF TOTAL DISPLACEMENT. PY AS STRINGERS IN FRACTURES.										148.00	149.00	19031	0.93	0.27	0.58	0.20
														149.00	150.00	19032	1.05	0.14	0.40	0.07
														150.00	150.90	19033	0.93	0.00		0.14
150.90	159.55		DOSB	GA	BX	CR	GO		26	28	PY/BA/3%	154.2	SH/1/060	150.90	152.00	19034	0.95	0.27		0.20
		CARBONATE & CHERT BXX CLASTS ROTATED & ANGULAR from .1-3cm SHEARED & RECEMENTED - STRONGLY COHESIVE IN BRXX ZONES - EVEN THOUGH FROM 156-159 BXX IS MATRIX SUPPORTED. MATRIX @ 158-159 IS ALMOST TOTALLY SULPHIDES GOOD SENSE OF SHEAR @ →										155.1	SH/1/070	152.00	153.00	19035	0.99	0.91		0.34
												155.9	SH/1/090	153.00	154.00	19036	0.90	1.30		1.02
												157.6	SH/1/095	154.00	155.00	19037	1.01	0.03		0.41
														155.00	156.00	19038	0.96	0.45		0.20
														156.00	157.00	19039	0.98	0.10		0.07
159.55	160.90		GOUG	GA	GO	BX	BD		26	28	PY/SH/3%)	159.65	SH/3/60	157.00	158.00	19040	1.05	13.51/12.75	1.57	11.08
FAULT CONT 		MATRIX: MFCA SHEARED CLAY & MFCA RIP UP CLASTS. VERY DISTINCT SHEAR ANGLES; MINOR SULPHIDES IN SHEAR PLANES. ALTERATION VARIES FROM TAN-TORN-PINK IN 1-2 cm PATCHES.										160.00	SH/3/60	158.00	159.00	19041	1.01	3.74	0.99	2.86
														159.00	159.55	19042	0.52	3.50		2.24
														159.55	160.90	19043	0.85	2.71		TR
160.90	162.84		MFCA	TA	MS	BD	SH	BX	24	26	PY/DS>VN/1 HE/PT>VN/1 MU/SP>VN/2	161.78	SH/1/50	160.40	161.40	19044	0.98	0.08	0.23	TR
		Med. tan-grey w reddish patches; 5% of core is sheared & 5% is partially re-healed matrix supported sub-rounded brxx; Original rock = MFAS; Minor thin calcite stringers; Py occurs as: Diss^ed brassy f.g.^ed x/s & extremely f.g.^ed grey py within shears.										162.21	SH/1/25	161.40	162.40	19045	1.01	0.10		TR
														162.40	162.84	19046	0.41	0.03		TR

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 19, 1995

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
162.84	163.87		MFCM	4A	MS	SH	BX		24	26	PY/VN>DS/1 // HE/SP/.5	163.68	SH/3/80	162.84	163.66	19047	0.84	0.07	0.91	TR
			crystal rich MFMS; 2% calcite str^s & veinlets; minor local											163.66	163.87	19048	0.21	1.71	1.92	TR
			matrix supported re-healed brxx (5% overall).																	
			163.66 - 163.76: Intense shear w/ much v.f.g.^{ed} grey py.																	
			overall py occurs as: f.g.^{ed} brassy py & v.f.g.^{ed} grey py on																	
			shears & frac^s.																	
163.87	165.13		LMST	4W	MS				14	0	PY/VN>DS/.5	164.13	SH/1/60	163.87	165.13	19049	1.29	0.27		TR
			whitish-grey; very minor loc re-healed brxx segments;																	
			minor loc thin shears; occasional calcite stringers;																	
			lots of stylolites; py occurs as: ① f.g.^{ed} brassy on																	
			frac^s & diss^{ed} ② v.f.g.^{ed} grey on frac^s.																	
165.13	167.03		MFCM	2A	BD	SH	BX		28	24	PY/VN>DS/.1 // HE/FT/1 // MV/SP>VN/1 // CL/PT/10	165.97	SH/3/60	165.13	166.08	19050	0.92	0.07		TR
			colour is variable bands of dark grey, black, green & red;									166.89	SH/1/60	166.08	167.03	19051	0.99	0.24		TR
			original rock = MFMS; 20% of core is sheared &																	
			5% is angular matrix supported brxx w/ a soft black matrix.																	
			py is f.g.^{ed} & brassy.																	
167.03	167.75		DO XB	5W	CR				24	18	PY/VN>DS/1			167.03	167.75	19052	0.61	1.51		TR
			Re-healed crackle brxx; brassy f.g.^{ed} py occurs within																	
			crackle frac^s & as disseminations.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 17, 1995

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
167.75	175.16		MFCA	TG	BD	BX			14	24	PY/DS/.1, HE/VN/.5 // MU/PT/2	172.77	BD/0/60	167.75	168.55	19053	0.89	0.72		TR
		Generally med. tan-green w minor black ARG1 interbands;										173.74	CV/3/50	168.55	169.55	19054	0.98	0.41		TR.
		Minor loc. interbeds of re-healed clast supported brxx;																		
		Occasional calcite stringers; Local minor thin shears.																		
		167.75 - 168.55 : 5-10% red hem filling fracs in a																		
		re-healed cracked & clast supported brxx.																		
175.16	178.15		ARG1	3N	BD				12	0	PY/DS/.1	175.52	BD/0/35							
		10% loc. interbeds of tan MFCA; All core is pervasively										176.89	SH/0/55							
		carbonatized; 1% thin irregular g/c stringers; very																		
		minor loc. thin shears.																		
178.15	186.07		MFCA	3A	BD	CR			12	14	HE/VN/2 // MU/SP/2	178.26	FR/0/65							
		Darkish grey w a greenish tint; About 15% of core is										179.84	FR/0/20							
		weakly crackled (re-healed); Original rock = MFAS; Local										183.93	BD/0/40							
		thin patches of fresh green MFAS; 1% thin calcite stringers.																		
		EOH = 186.07 m																		

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GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 17/95

MINE ASSAY REPORT (CORE SAMPLES)

ASSAYER: Wayne.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG131/18059		0.24				
60		0.14				
18201		0.27				
02		0.55				
03		TR				
04		0.62				
05		0.03				
06		0.03				
07		0.17				
08		TR				
09		0.24				
10		0.03				
11		0.07				
12		0.10				
13		TR				
UG132/7374		TR				
75		TR				

GOLDEN BEAR OPERATING COMPANY

DATE: June 13/09

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
0613217376		0.67				

GOLDEN BEAR OPERATING COMPANY

DATE: June 23/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

	TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S: %
	UGSL173 77		0.03				
	78		0.21				
	79		0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: June 21/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG132|17380		0.27				
1		0.21				
2		0.27				
3		0.14				
4		0.07				
5		0.24				
6		0.17				
7		0.27				
8		0.34				
9		0.27				
90		0.03				
1		0.31				
2		0.00				
3		0.00				
4		0.41				
5		0.00				
6		0.00				
7		0.51				
8		0.27				
9		0.70				
400		0.45				
UG132|19001		0.82				
2		0.55				
3		0.24				

GOLDEN BEAR OPERATING COMPANY

DATE: June 21/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S: %
UG132/19004		0.00				
5		0.51				
6		0.86				
7		0.82				
8		0.38				
9		0.48				
10		0.21				
11		0.17				
12		0.38				
13		1.06				
14		0.31				
15		0.48				
16		0.10				
17		0.00				
18		0.34				
19		0.10				
20		0.38				
1		0.45				
2		0.10				
3		1.06				
4		0.72				

GOLDEN BEAR OPERATING COMPANY

DATE: June 22/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S: %
UG132190 25		0.21		1.38		7.24
6		0.27		1.90		7.38
7		1.58		1.54		8.59
8		5.24/5.55.		2.68		5.40
9		2.40		2.48		5.98
30		0.17				
1		0.27		5.47		0.58
2		0.14		3.59		0.40
3		0.00				
4		0.27				
5		0.41				
6		1.30				
7		0.09				
8		0.45				
9		0.10				
40		13.51/12.75		2.90		1.57
1		3.74		2.65		0.99
2		3.50				
3		2.71				
4		0.08		2.15		0.23
5		0.10				
6		0.03				
7		0.07		3.42		0.91

GOLDEN BEAR OPERATING COMPANY

DATE: June 22/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
06132 19048		1.71		2.92		1.92
9		0.27				
50		0.07				
1		0.24				
2		1.51				
3		0.72				
4		0.41				

NORTH AMERICAN METALS CORP
DRILL LOG COVER SHEET

DATE:

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DRILL HOLE # G95UG133 PROJECT AREA: GRIZZLY SECTION: 23950N

DRILL HOLE LOCATION DATA

EASTING: 25068.010
NORTHING: 23952.851
ELEVATION: 956.504
HOLE LENGTH (M): 195.67

DRILL DIARY

STARTING DATE: (DD/MM/YYYY)
COMPLETION DATE: JUNE 21, 95 (DD/MM/YYYY)
LOGGED BY: APH RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	265.696	-46.444	SURVEY
1	60.96	270.50	-50.50	SPERRY
2	152.39	270.00	-52.0	SPERRY
3	191.41		-52.0	ACID
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUNE 18/95

DDH G95UG133

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CHEMEX AU

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4-	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	20.60		MFCA	6G	MS	VN			14	12	NE/DS,CO/0.5	4.80	FR/0/60						
											lightish green, massive, weakly altered, coarse	6.25	FR/0/30						
											grained mafic tuff / crystal tuff. Weak	9.50	FR/0/65						
											alignment or inherent foliation @ ± 45° TCA. Grains	12.60	FR/0/55						
											/ crystals to 3.0 cm. Black hematite grains	15.85	FR/0/40						
											visible under microscope, evenly disseminated,								
											earthy red hematite present on fractures (most								
											all). Unit is weakly qtz-carb veined, 1-4 mm								
											wide, one every 15-60 cm various ± TCA. Lower								
											contact irregular.								
20.60	24.54		MFCA	GA	BD				14	16	PY/VN,DS/0.5	20.80	BD/1/50						
											Thin bedded, greenish grey and creamy colored,	21.49	BD/1/60						
											moderately bleached mafic crystal tuffs in part	23.67	BD/1/60						
											intrude by light grey chert interbeds to 1.0 cm.								
											Local patchy green mica. Pyrite occurs as								
											bedding // stringers + disseminated grains ± .25-.5%								
25.54	25.85	FZ	MFCA	7A	GO	SH	BX		28	16	PY/BM/0.5	24.85	LC/0/50	25.54	25.85	18301	0.30	0.45	0.27
											- light grey, sheared + gouge, moderately								
FZ?											bleached mafic tuffs to minor dk grey breccia								
											containing dusty clasts. Disseminated								
											pyrite occurs along open planes + as								
											breccia matrix. Core is very broken.								

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
25.85	32.79		MFCA	7G	MS	VN	BD		14	16	PY/DS/0.1								
		- light green, soft, moderately bleached,																	
		massive to thin bedded mafic tuffs. Bddg										26.30	FR/0/40						
		varies from sub // to CA to ≈60° TCA. No folding										28.80	BD/1/30						
		evident but some wavy bedding. Weakly qtz-carb										28.85	FR/0/40						
		veined @ various ∢TCA. 10cm bull qtz vein										31.60	FR/0/70						
		@ 27.60-27.70 and 15cm bull qtz 29.15-29.30m										31.70	BD/1/70						
		Trace pyrite as vfg dissem and spots. Ocsl																	
		graphitic slys plane // bddg near base of section																	
		(70° TCA).																	
32.79	36.32		MFCA	RT	BD				16	14	PY/DS/0.1 / HE/CO/0.1	33.10	BD/1/45						
		- reddish tan to tan colored, soft, well										33.70	FR/0/40						
		bedded mafic ash to xal tuffs. Bddg										35.00	BD/1/60						
		bw 45+60° TCA. Fracts 30-45° TCA. Contains										35.00	FR/0/30						
		trace vfg dissem pyrite. Hematite present										35.96	BD/1/50						
		on fracts + along bedding planes. Core strongly broken.										35.96	FR/0/30						
36.32	38.32		MFAS	5G	MS	BD	VN		0	0	HE/CO/0.1	36.52	BD/1/30						
		- medium to darkish green, basically										37.70	BD/1/40						
		unaltered, med to coarse grained mafic ash										38.10	FR/0/50						
		tuff / xal tuff. Very weakly qtz-carb veined,																	
		1.0mm wide 1 every 10-20cm. Hematite on																	
		fract surfaces, trace vfg dissem py.																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
38.32	49.60		MFCA	RG	MS	BD	VN		0	12	PY/DS/0.1 // HE/CO/0.5	38.80	BD/1/35						
		- light reddish green, massive thin bedded, fine to medium grained, lightly altered mafic ash tuffs. Very weakly qtz-carb veined (every 30-90cm, often is bounded staining which also occurs on fractures.										40.05	FR/0/50						
												43.20	BD/1/30						
												43.68	FR/0/30						
												45.40	BD/1/35						
												47.85	BD/1/40						
		Contains trace-1% py as disseminations										48.35	FR/0/30						
		Lowest 90cm of section is quartz green from green mica.																	
49.60	56.25		MFCA	ST	MS	BD			12	14	PY/DS/0.1	50.90	BD/1/30						
		- medium tan colored, very finely bedded mafic volcanic tuffs (MEEP was protolith?) in rare clasty interbeds. Beds to 0.5 cm with consistent @ 30-50° TCA. Only weakly altered, well competent, non-calcareous. Rare qtz-carb veinlets @ various ° TCA. Unit contains trace-1% disseminated pyrite.										53.50	BD/1/40						
												53.50	FR/0/30						
												55.90	BD/1/50						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
56.25	57.09		MFCA	7G	MS	VN			O	14	PY/DS/0.1								
		- lightish green, massive, weakly altered mafic volcanic tuff (crystal tuff). Unit is weakly qtz-carb veined @ various & TCA and contains trace vfg pyrite.																	
57.09	61.79		ARG1	3A	BD	VN			14	12	PY/VN DS/0.1	57.50	BD/1/40						
		- dark grey to black, thin bedded argillite w minor interbedded MFEP (5%). ARG1 beds 0.1-0.5cm, MFEP beds 0.5-2.0cm. Bdy surfaces are graphitic, most parts // bddg. Weakly qtz-carb veined @ various & TCA. ≤ 0.25-0.5% pyrite as bddg // stringers and disseminations.										58.65	BD/1/25						
												61.41	BD/1/30						
61.79	67.66		MFCA	5Y	BD				12	14	PY/DS/0.5	61.90	BD/1/60						
		- medium tan colored, weakly altered, non-calc. fine & med grained bedded mafic tuffs w one 30cm section of org (≈ 62.20-62.50m). Beds 0.2-1.0cm thick. Pyrite present as disseminations along bedding planes										64.61	BD/1/30						
												67.16	BD/1/30						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
67.66	69.71		MFCA	GA	MS	BD	GO	SH	14	16	PY/SP/0.5	68.06	FR/0/10						
			- greenish grey moderately altered, coarse grained									69.00	FR/0/50						
			volcanic tuff (xal tuff) w/ wavy distorted																
			bddg subll to CA. Lightly sheared w/ gouge																
			on fracts. Pyrite as spots to 2.0 mm ≈ 0.5%																
			Upper + lower contacts irregular																
69.71	71.62		MFCA	5T	MS	BD	VG		0	14	PY/VN DS/0.5								
			- medium tan, massive, non-calcareous, bedded									70.61	FR/0/70						
			moderately altered mafic volcanic tuffs.									71.52	BD/1/45						
			Bddg on 0.2-1.5 cm scale. Py as irregular									71.62	LC/0/50						
			stringers and disseminations ≈ 0.5 cm. Lower																
			contact sharp @ 50° TCA.																
71.62	72.65		ARGI	2A	BD	VN			12	14	PY/DS/0.1	72.10	BD/1/30						
			dark grey thin bedded argillites w/ very rare																
			cherty layers. Bddg 0.1-0.5 cm. Very weak																
			x-cutting qtz-carb veinlets, 1-2 mm, one every																
			5-20 cm. Unit contains trace vfg pyrite.																
72.65	80.77		MFCA	TA	BD	SH	GO		16	16	PY/DS/0.1	73.70	BD/1/30						
			tannish grey to light grey moderately soft,									76.50	FR/0/70						
			fine grained bedded tuffs (MFCP) w/ interbedded									80.22	BD/1/60						
			cherty horizons which increase in proportion																
			down section to ≈ 20%. Unit is weakly to																
			moderately sheared w/ trace gouge. Calcite																

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present on fracture, pyrite occurs as fg. disseminations throughout.

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											present on fracture, pyrite occurs as fg disem throughout. Sooty zone @ 77.00-79.35m. Csl ARGI interbed in lowest 1.0m of section.								
80.77	83.90		ARGI	1A	BD	PH			0	16	PY/DS/0.1	81.00	BD/1/50						
											dark grey to black argillite and tuffaceous argillite ± 20% interbeds of tan MFCA (sections to 20cm). Beds 0.3-1.5cm. Has phyllitic partings // to bddg. Rare qtz-carb veinlets @ low XTCA, 1 every 10-20cm. Unit contains vfg diss. py.	82.70	BD/1/40						
												83.80	BD/1/50						
83.90	89.00		MFCA	5T	MS	BD			0	16	PY/DS/0.1	84.75	BD/1/60						
											- tan colored thin bedded mafic volcanic tuff (MFEP) ± csal CHRT interbeds and argillite interbeds (±10-15%, 10-30cm wide sections). Trace grn mica. ±0.1-0.5% fg diss pyrite. Beds 0.1-1.0cm thick	85.80	BD/1/70						
												87.50	BD/1/70						
												88.80	BD/1/60						
89.00	102.48		ARGI	1A	MS	BD			0	16	PY/DS/0.5	90.70	BD/1/35						
											- dark grey thin bedded argillite ± 0.5-20cm interbedded sections of MFCA (MFEP). Bddg fairly consistent (change near 92.50m from ∫ 30° to 55°). MFCA ± 90% of section, evenly distributed. Contains 0.25-1.0% vfg diss PY.	92.30	BD/1/30						
												93.57	BD/1/60						
												96.61	BD/1/55						
												99.50	BD/1/50						
												101.90	BD/1/55						

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fracts // to bddg, fracts weakly phyllitic. Rare, qtz-carb veinlets ≤ 2.0mm,

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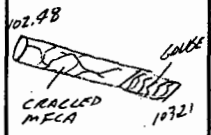
FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX ALL
102.48	103.21		MFCA	4A	CR	GO	SH		28	24	PY/PT/DS/1	103.06	SH/2/60	102.48	103.21	18302	0.71	0.14		0.14
			-dark gray, strongly altered, crackled MFCA w a 15cm gougy fault zone @ base of section. MFCA contains patches of fg py to 7.0cm + dissem py. in calcareous matrix. Fault zone ≈ 50% gouge, 50% MFCA frags to 1.5cm, also calcareous.																	
103.21	103.66		ARGI	1A	BD				0	16	PY/PT/1	103.30	BD/1/75	103.21	103.66	18303	0.42	0.24		TR
			-darkest grey to black, thinly bedded argillite, w ocsl white cherty clast to 1.0 cm. Bedding is contorted/folded but generally @ 70-80° TCA. Unit contains pyrite as dissemenations and small patches to 0.2 cm.																	
103.66	105.99		MFCA	GA	BD	SH	GO		14	12	PY/DS/0.1	104.24	BD/1/85	103.66	105.09	18304	1.40	0.69		TR
			greenish grey thin bedded weakly altered mafic volcanic tuffs (MFEP) with cherty interbeds. Lightly sheared along discrete fracts w minor gouge developement (fracts ≈ 45° TCA). Pyrite as bddg // dissem + spots ≈ 1% overall									105.09	LC/0/45							
105.09	107.45		ARGI	1A	BD	SH	GO	PH	24	14	PY/PT/DS/1	105.25	BD/1/55	105.09	106.27	18305	1.01	0.07		TR
			dark grey to black argillite w ≈ 15-20% MFCA interbeds to 15cm thick. Argillite is well bedded w white cherty pods to 1cm thick. Unit is sheared w gouge from 106.00 - 106.50m. Bddg planes are phyllitic. Pyrite occurs as bddg // streaks + patches ≈ 1-2% overall.									106.15	SH/2/75	106.27	107.45	18306	0.93	0.00		TR
												107.28	BD/1/40							



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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
107.45	113.17		MFCA	AT	MS	BD			14	24	PY/VN PO/1			107.45	108.45	18307	1.00	0.00		TR
			-greyish tan colored massive to weakly											108.45	109.45	18308	1.00	2.57		TR
			bedded, moderately altered mafic volcanic									108.80	FR/0/30	109.45	110.45	18309	1.01	0.00		TR
			tuffs. Grain size increases down section									109.75	FR/0/45	110.45	111.45	18310	0.92	0.03		0.34
			to an xal tuff for lower 3.0m. Pyrite as									111.90	FR/0/50	111.45	112.45	18311	1.02	0.34		0.14
			stringers + patches to 2.0cm abv ↑ down section,									113.17	LC/0/60	112.45	113.17	18312	0.78	0.21		TR
			± 1.5-2.5% overall. Unit is weakly																	
			fractured. Lower contact strgs @ 60 TCA																	
113.17	113.98		ARGI	1A	BD	SH	PN		24	16	PY/DS/1	113.70	BD/1/70	113.17	113.98	18313	0.65	0.38		0.27
			-dark grey to black, thin bedded argillite.																	
			Lightly to moderately silicified in phyllitic																	
			partings // bdg. Bdg @ 70° TCA. Contains																	
			fairly coarse dissem py ± 1-2%.																	
113.98	123.74		DOSB	3A	CR	BX	GO		28	28	PY/DS/0.1			113.98	114.98	18314	0.94	0.07		0.07
			-darkish grey, thoroughly cracked and/or											114.98	115.98	18315	0.66	0.07		TR
			brecciated + silicified dolomite. Upper 6.0m of											115.98	116.98	18316	0.71	0.10		TR
			section contains ± 35-40% thin bedded											116.98	117.98	18317	0.91	0.00		0.14
			chert prgs to 10.0cm and is strongly											117.98	118.98	18318	0.69	0.03		TR
			broken with moderate gouge. Lower section											118.98	119.98	18319	0.74	0.03		TR

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: AOH

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX Au
														119.98	120.98	18320	0.92	0.31		0.34
											contains only rare chert frags, is strongly cracked and moderately broken. Pyrite throughout interval as fine disseminations			120.98	121.98	18321	0.95	0.72		0.48
														121.98	122.98	18322	0.98	0.41		0.20
														122.98	123.74	18323	0.61	0.65		0.41
123.74	125.57		DOSB	OT	Bx	GO			28	24	—			123.74	125.57	18324	0.58	0.86		0.68
											- breccia of DOSB clasts in a strongly limonitic weakly calcareous matrix. 10 cm of strongly gouged material @ top of section. Breccia is clast supported. DOSB clasts are moderately silicified, rarely very soft. No py noted. Mod core loss.									
125.57	125.87	FZ	BSDY	N	MS	AM			12	0				125.57	125.87	18325	0.25	0.38		TR
											- black, fine grained basalt dyke w selective amygdules to 1.5mm ± 3-5 %									
125.87	127.09		GOUG	OT	GO				29	0	—			125.87	127.09	18326	0.31	0.10		TR
											- orangy tan colored sandy gouge w occ grey DOSB fragment. Essentially same unit as 123.74 – 125.57m but more strongly broken + gouged. No py noted. Heavy core loss.									

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LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
127.09	130.14		DOSB	7A	BX	CR	VG		28	22	PY/DS/PP			127.09	130.14	18327	1.94	0.51		TR
		-light grey, weakly silicified, strongly brecciated and crackled dolomite w/ ≈ 20cm limonite gouge @ base of section. Trace vfg py noted under microscope only. Clasts to ≈ 1.5cm. Vugs ≈ 2-3% open space																		
130.14	131.67		LOST																	
		-minor cave/sand in between block.																		
131.67	159.97		DOSB	6A	BX	CR	VG	22	28		PY/DS/0.1			131.67	133.19	18328	0.18	0.03		TR
		-lightish grey, strongly brecciated and/or crackled, weakly silicified dolomite. Appears to be a DOCH as ocsl dark grey chert nodules are present. Unit is weakly calcareous (mainly matrix) Clast size ranges from 0.3cm to ≈ 3.0 cm. Minor vuggy openings ≈ 1-2% space. Trace extremely fine grained pyrite throughout. * Heavy to moderate core loss from 131.67-154.53. Core very strongly broken. HEAVY - 131.67-135.48 137.76-143.85										136.00	FR/0/60	133.19	134.10	18329	0.25	0.03		TR
												137.40	FR/0/65	134.10	134.71	18330	0.65	0.10		TR
												148.20	FR/0/55	134.71	135.48	18331	0.54	0.21		TR
														135.48	136.23	18332	0.87	0.14		TR
														136.23	137.23	18333	0.81	0.34		TR
														137.23	138.29	18334	0.60	0.07		TR
														138.29	140.81	18335	0.39	0.03		TR
														140.81	142.33	18336	0.23	0.31		TR
														142.33	143.33	18337	0.79	0.07		TR
														143.33	144.33	18338	0.76	0.10		TR
														144.33	145.38	18339	0.84	0.21		0.14

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: RPN

Date: JUNE 21 95

DDH 95UG133

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX Au
														145.38	146.91	18340	0.61	0.31		0.14
131.67-159.97 CONT		- core competent with good recovery from 154.53 - 159.57m.												146.91	148.43	18341	1.06	0.17		0.27
														148.43	149.95	18342	0.73	0.14		TR
														149.95	151.48	18343	0.72	0.10		TR
														151.48	153.02	18344	0.77	0.14		0.07
														153.02	154.53	18345	1.11	0.31		0.14
												156.53	FR/0/70	154.53	155.53	18346	0.99	0.14		0.07
												159.73	FR/0/65	155.53	156.53	18347	0.98	0.34		0.07
														156.53	157.53	18348	0.90	0.34		0.27
														157.53	158.53	18349	0.93	0.17		0.07
														158.53	159.53	18350	0.98	0.21		0.14
														159.53	159.97	18351	0.49	0.21		0.07
159.97	168.54		DOSB	4A	BX	CR	VG		28	24	PY/DS/0.1	161.10	FR/0/25	159.97	160.97	18352	0.91	0.07		TR
		- dark grey, thoroughly brecciated and cracked, moderately silicified dolomite w/ veal white and grey chert fragments. Clasts to 2.0cm in a very mildly calcareous matrix. Open vugs form 3-4% of rock, pyrite is throughout as wisp disseminations, and occasionally as patches of dark grey sx. Locally core is moderately broken, but generally recovery is good + core competent. - sheared w/ 7cm gouge @ 165.40m.										161.90	FR/0/70	160.97	161.97	18353	0.96	0.03		0.07
												164.80	FR/0/70	161.97	162.97	18354	0.95	0.62		0.34
												166.15	FR/0/30	162.97	163.97	18355	1.02	0.51		0.27
												168.24	FR/0/70	163.97	164.97	18356	0.75	0.24		0.14
														164.97	165.97	18357	1.01	0.58		0.34
														165.97	166.97	18358	1.10	2.57		2.04
														166.97	167.97	18359	1.06	2.71		1.97
														167.97	168.54	18360	0.58	7.37		5.78

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX Au
168.54	170.69		DOSB	4A	Bx	VG			28	22	PY/DS/1.0			168.54	169.61	18361	1.10	4.49		4.01
											- dark grey completely brecciated, lightly to	168.74	FR/10/50	169.61	170.69	18362	1.05	7.03		5.44
											moderately silicified dolomite. Clasts to	170.20	FR/10/70							
											1.0cm only, in a weakly calcareous matrix									
											Rare PYTF frag and oval CHRT frag. Pyrite									
											as vfg disseminations ± 1-2.0%. This is higher than									
											anywhere else in carbonate Dom. Core is									
											locally moderately broken but generally									
											competent.									
170.69	176.20	FZ	GOUG	5A	GO	SH			29	26	PY/GO DS/2									
FOOTWALL FAULT											Footwall fault zone. Medium grey, highly	172.82	SH/6/60	170.69	170.99	18363	0.32	3.84		3.20
											sheared and gouggy MFCA ± oval clasts			170.99	172.82	18364	0.60	47.94/38.58		CHK. 39.24
											5cm of DOSB. Shear fabric @ ± 60° TCA. 170.60			172.82	174.04	18365	0.25	11.21		9.72
											to 174.34 dominated by gouge ± 50% of unit. 174.34			174.04	174.34	18366	0.28	1.92		0.27
											to 176.20 consists of highly sheared MFCA ± 5			174.34	175.27	18367	0.91	0.21		0.07
											20% gouge. Gouge contains 3-5% fg			175.27	176.20	18368	0.96	0.10		0.07
											disseminated pyrite, sheared MFCA 1-2% PY,									
											± 2-4% overall.									

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
176.20	177.89		ARGI	TA	SH	PH			26	22	PY/DS/0.5			176.20	177.05	18369	0.82	0.03		TR
			- dark grey to black, sheared, phyllitic argillite & minor interbedded MFCA and augen bio lenses of creamy, silicified dolomite. Shear fabric @ 50°-60° TCA. Disseminated py 5 0.5% throughout unit									176.80	FR/0/60	177.05	177.89	18370	0.84	0.00		TR
												177.69	FR/0/50							
177.89	181.33		MFCA	TA	BD	PH	VN		14	18	PY/DS/0.1			177.69	178.89	18371	0.94	0.20		TR
			- grey to tannish grey bedded, moderately bleached, soft mafic volcanic tuff w an argillite component. Fracts/partings on phyllitic. Unit is weakly qtz-carb veined @ various & TCA. Contains trace w/g disseminated py.																	
181.33	185.92		MFCA	GT	MS	VN			0	16	PY/DS/PP/HE/VN/0.5									
			- light tan to light greenish tan colored massive moderately altered mafic volcanic. Protolith most likely an ext tuff. Weakly qtz-carb veined w/ dendritic staining. 0.3-1.5cm wide, one every 15-50cm. No ox noted. Core competent									183.06	FR/0/145							
												184.90	FR/0/15							
185.92	195.67		MFCA	GG	MS	VN			0	12										
			- light green to reddish tan massive, unaltered to lightly altered mafic volcanic (ext tuff) Weakly qtz-carb veined @ various & TCA, 1 every 5-15cm, 1-2mm wide. No ox noted. Core competent.																	

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195.67 E.O.H.

GOLDEN BEAR OPERATING COMPANY

DATE: June 22/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG13318301		0.45		3.08		2.62
2		0.14				
3		0.24				
4		0.64				
5		0.07				
6		0.90				
7		0.00				
8		2.57				
9		0.00				
10		0.03				
11		0.34				
2		0.21				
3		0.38		1.66		0.67
4		0.07				
5		0.07				
6		0.10				
7		0.00		1.07		0.36

GOLDEN BEAR OPERATING COMPANY

DATE: June 23/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
OG133183 18		0.03		0.84		0.38
19		0.03				
20		0.31				
1		0.72				
2		0.41				
3		0.65				
4		0.86				
5		0.38				
6		0.10				
7		0.51		5.33		0.18
8		0.03				
9		0.03				
30		0.10				
1		0.21				
2		0.14				
3		0.34				
4		0.07				
5		0.03		5.55		0.45
6		0.31				
7		0.07				
8		0.10				
9		0.21				
40		0.31				
1		011				

GOLDEN BEAR OPERATING COMPANY

DATE: June 23/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG/3318342		0.14	"	6.72		0.06
3		0.10				
4		0.14				
5		0.31				
6		0.14				
7		0.34				
8		0.34				
9		0.17				
50		0.21				
1		0.21		5.78		0.43
2		0.07				
3		0.03				
4		0.62				
5		0.51				
6		0.24				
7		0.58				
8		2.57		4.25		0.27
9		2.71				
60	157.97	7.37				
1		4.49				
2		7.03				
3		3.84				
4		47.42				
5	174.04	11.21		2.17		3.03

GOLDEN BEAR OPERATING COMPANY DATE: _____

MINE ASSAY REPORT (SAMPLES) ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG13318366		1.92		2.35		3.44
7		0.21				
8		0.10				
9		0.03				
10		0.00				
1		0.20		1.87		0.18

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____

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DRILL HOLE # G95UG134 PROJECT AREA: GRIZZLY SECTION: 23800N

DRILL HOLE LOCATION DATA		DRILL DIARY	
EASTING:	25046.788	STARTING DATE:	19/06/95 (DD/MM/YYYY)
NORTHING:	23800.349	COMPLETION DATE:	03/07/95 (DD/MM/YYYY)
ELEVATION:	979.186	LOGGED BY:	APH RIG: CONNORS
HOLE LENGTH (M):	166.41	CONTRACTOR:	ADVANCED CORE SIZE: NQ
		SURVEYED BY:	B. P. EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	271.415	+12.485	SURVEY
1	76.50	270.2 (INTERPOLATED)	+13.0	ACID * POOR ETCH.
2	121.9	271.0	+13.5	SPERRY.
3	158.49	270.0	+13.5	SPERRY
4				
5				

PURPOSE: TO TEST THE UPPER GRIZZLY ZONE

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:
- electric motor quit @ 331' - drill down for several days.
- extremely heavy H_2O @ 330
- entire hole filled w cement 800 PSI

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUNE 22, 1995

DDH G95UG134

PAGE 1 OF 13

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.0	4.57		CASE																
			-casing to 15' no core recovered																
4.57	8.67		MFCA	AT	MS	BD	CR		0	24	PY/VN PT/2								
			-greyish tan, massive, weakly bedded and									6.90	FR/0/35						
			moulded, very soft, moderately altered									7.90	BD/1/60						
			volcanic tuffs. Contains strongest C loss of																
			section ~ vein + patch pyrite, locally 10%, @ 3-5%																
			over entire section. Minor qtz-carb veining.																
8.67	9.47		ARGI	IA	BD	VN	PH		14	14	PY/VN DS/1								
			dark grey to black, thinly bedded argillite ~									9.17	BD/1/35						
			occ. clasty interbeds to 2.0mm. Contains graphitic,									9.23	FR/0/50						
			phyllitic. Moderately qtz-carb veined, 1 every 3-10																
			cm @ various ± TCA. Pyrite as bedding // inserts																
			+ coarse disseminations + carb veins @ 2-3%																
9.47	16.66		MFCA	AT	MS	BD			14	22	PY/VN PT/2								
			-greyish tan, massive, weakly bedded, very soft,									9.00	FR/0/40	10.00	11.00	18372	0.96	0.07	
			moderately altered volcanic tuffs. Contains									10.47	BD/1/50						
			3-5% fine pyrite as veins + patches. One									12.1	FR/0/50						
			sample taken to assess for Au. Core strongly																
			broken + recovered from 13.72 - 15.54m ~ heavy																

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get wet, core loss

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUNE 22, 1995

DDH 95UG134

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
16.66	18.39		BSDY	N	MS	AM			0	0									
		- black, fine grained, massive basalt dyke w ~1-2%, 1-3mm calcite filled amygdules.																	
18.39	18.69		MFCA	GA	CR				26	22	PY/03/0.1								
		- greenish gray, strongly crackled, moderately altered mafic volcanic tuff. Only minor rotation of fragments. 2.0 cm @50° dyke @ base of section. Contains minor disseminated pyrite.																	
18.69	49.92		MFCA	ST	MS	BD	60		14	14	PY/05/0.1 / FU/SP/0.1								
		- medium tan, soft, weakly to moderately altered, massive to thin bedded mafic tuffs. Locally very lightly sheared w trace gouge. Contains trace to minor fg. disseminated pyrite. Pyrite ↑ to ~ 2-4% in 1.0 m next to fault contact @ base of section.										19.95	FR/0/55						
												25.50	BD/1/20						
												29.28	FR/0/45						
												32.60	FR/0/45						
												36.60	FR/0/50						
												39.60	BD/1/35						
		NOTES: 21.64 - 22.30 : core strongly broken.										43.30	BD/1/30	47.42	48.42	18373	0.94	0.07	
		26.65 - 27.42 : ~70% med gy argillite interbeds										47.55	FR/0/45	48.42	49.42	18374	0.97	0.07	
		31.93 - 31.65 : sheared w gouge.																	
		42.72 - 49.80 : contains ~3-4%, 2-4mm "pinkish" anhy.																	
		45.50 - 46.90 ; core strongly broken.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: ADH

Date: JUNE 22 95

DDH G95UG134

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
49.92	51.52	FZ	60UG	A/A	GO	SH			29	24	PY/ET/1			49.42	50.59	18375	0.72	0.07	
HW FAULT		greyish tan to medium grey fault gouge with MFCA + DOSB fragments.												50.59	51.52	18376	0.48	0.82	
		49.42 - 50.59: greyish tan colored ± 50% white fault gouge in tan, pyritic MFCA frags to 4.0cm & ± 2% pyrite.																	
		50.59 - 51.52: medium grey gouge ± 70% in med grey DOSB frags to 3.0cm.																	
		⇒ Upper + lower contacts indistinct but seem @ high angle TCA (80-90°).																	
51.52	52.02		DOSB	4G	Bx	VG			20	24	PY/DS/0.5			51.52	52.02	18377	0.56	0.34	
		- dark brt grey strongly brecciated and moderately silicified dolomite. Clasts to 1.5cm in a dk grey siliceous matrix ± 0.5 - 1.0% fg disem pyrite + 3cm clay gouge on lower contact. Oxd vuggy surface on core.										55.02	LC/0/80						
52.02	52.87		MFCA	GT	SH	BX	GO		28	16	PY/DS/0.5	52.12	SH/2/70	52.02	52.78	18378	0.84	0.75	
		- greenish tan colored, strongly sheared, brecciated and gouge, moderately bleached mafic volcanic. 10 - 20cm sections of MFCA ± 5-10cm gouge zones (50% GO) containing milled MFCA frags to 1.5cm. One DOSB frag noted. MFCA clasts + gouge contain ± 0.5 - 1.0% disseminated pyrite.										52.52	FR/0/70						

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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DDH G95UG134

Date: JUNE 29, 95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
52.87	62.22		DOSB	5A	Bx	CR	VG		26	24	PY/CO/0.1			52.87	53.95	18379	0.52	0.38	
60 GAL/MIN H2O @ 59 PSI.											- medium grey, moderately to strongly brecciated, weakly to moderately silicified dolomite in chert nodules and/or horizons (cherts generally dark grey). Short sections (15-25cm) only cracked. Chert content + silicification increases down section. Core is vuggy ± 3-6% open space. Fine dark grey pyrite/sulphides as coatings on fracture + cavity surfaces and as wispy disseminations ± 0.25-0.5%. Core locally is moderately to strongly broken.	56.10	FR/0/75	53.95	55.17	18380	1.01	0.31	
												58.65	FR/0/45	55.17	56.17	18381	0.89	0.17	
												60.85	FR/0/60	56.17	57.17	18382	1.03	0.14	
												61.36	FR/0/55	57.17	58.17	18383	0.99	0.17	
														58.17	59.17	18384	0.71	0.14	
														59.17	60.17	18385	0.75	0.07	
														60.17	61.17	18386	1.08	0.03	
														61.17	62.22	18387	0.98	0.14	
62.22	63.43		DOSB	4A	CR	BX	VG	BD	24	24	PY/CO/0.1	62.57	FR/0/40	62.22	63.43	18388	1.21	0.10	
											medium grey strongly cracked, locally brecciated, vuggy, weakly to moderately silicified dolomite in dark grey chert nodules (DOCH protolith). Possible bedding @ 35° TCA. Fracts are graphite in fine, grey sulphides. Vugs ± 3-5%. Minor vnlg qtz.	62.92	FR/0/40						
												63.13	BD/1/35						
63.43	63.97		VNQZ	W	MS				0	0	PY/CO/0.1	63.90	FR/0/45	63.43	63.97	18389	0.35	0.03	
											- massive buff white qtz vein in black fracture coatings @ various ± TCA. On fracts is graphite + possibly extremely fine sulphides.	63.97	LC/0/40						

NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
63.97	64.31		DOSB	4A	CR	VG			24	29	PY/DS/0.1			63.97	64.31	18390	0.36	0.14	
			-as for 62.22 - 64.31 except more strongly silicified due to proximity to qtz veins. Contains 1 10 cm irregular patch of bull qtz.									64.31	LC/0/35						
64.31	64.58		VNQZ	W	MS				0	0	PY/CO/0.1			64.31	64.58	18391	0.28	0.10	
			-as for 63.43 - 63.97																
64.58	65.01		DOSB	4A	CR	VG			22	24	PY/CO/0.1			64.58	65.01	18392	0.71	0.03	
			-very similar to 62.22 - 64.31 except less strongly crackled. Ocsl irregular bleb bull qtz. Calcite in vugs which form ≈ 3-5% open space. Py as fracture/crackle coating, very fine and dark grey.																
65.01	65.23		VNQZ	W	MS				0	0	PY/CO/0.1	65.01	UC/0/35	65.01	65.23	18393	0.22	0.14	
			-as for 63.43 - 63.97																

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LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
65.23	76.03		DOCH	4A	MS	CR	VN	BX	0	22	PY/$\frac{DS}{20}$/0.5		
			- dark grey, massive, weakly crackled, weakly to moderately silicified dolomite ± 5-10% dark grey chert nodules (DOCH pseudolith). Unit is weakly qtz, carb veined @ various ✱TCA, generally high angles (70-90°).									66.23	FR/0/30
												68.90	FR/0/45
												71.00	FR/0/45
												74.75	FR/0/40
			Fractures are often graphitic (?) and graphitic slip contains wisp dark grey sulphides. Minor breccia @ 73.50 - 74.10m. +@ 75.23 (@ 75.23 very minor "cement-like bx" as in BHDH194.										
76.03	85.64		DOCH	6A	MS	CR	BX	VN	12	22	PY/$\frac{CC}{VN}$/0.5		
			- light grey massive, weakly crackled, weakly silicified, dolomite ± 20-25° irregular patches of slightly darker grey, porcellaneous chert (DOCH pseudolith). Short section of breccia from 76.23 - 76.43. Weakly + erratically calcite veined, various ✱TCA, every 10 - 50cm. Pyrite occurs as fracture coatings and as veinlets ≤ 0.5% overall. Core moderately to strongly broken from 76.03 - 79.03 and @ 80.00 m for 30 cm.									79.03	FR/0/60
												81.03	FR/0/30
												84.50	FR/0/40

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
65.23	66.23	18394	1.04	0.07	
66.23	67.23	18395	0.77	0.10	
67.23	68.23	18396	0.98	0.10	
68.23	69.23	18397	0.84	0.45	
69.23	70.23	18398	0.93	0.07	
70.23	71.23	18399	1.06	0.10	
71.23	72.23	18400	0.80	0.14	
72.23	73.23	18401	1.02	0.17	
73.23	74.23	18402	1.00	0.55	
74.23	75.23	18403	0.95	0.24	
75.23	76.03	18404	0.82	0.24	
76.03	77.03	18405	1.41	0.14	
77.03	78.03	18406	0.68	0.58	
78.03	79.03	18407	0.92	0.21	
79.03	80.03	18408	1.02	0.07	
80.03	81.03	18409	1.01	0.21	
81.03	82.03	18410	0.92	0.41	
82.03	83.03	18411	0.99	0.14	
83.03	84.03	18412	1.11	0.07	
84.03	85.03	18413	1.02	0.14	
85.03	85.64	18414	0.74	0.17	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUNE 26 95

DDH 95UG134

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%:
85.64	88.56		DOSB	2A	CR	VG	VN		26	28	PY/VN/0.1			85.64	86.64	18415	0.82	0.24	
		- very dark grey, strongly crackled, strongly silicified dolomite. Unit is vuggy, ± 5% of section. Erratically calcite veined @ various *TCA. Minor limonite 87.84 - 88.36 as crackle matrix. Trace fg diss py in calcite veins. Core mod. broken										86.40	FR/0/40	86.64	87.64	18416	0.88	0.45	
												88.40	FR/0/65	87.64	88.56	18417	0.84	2.43	
88.56	89.42		DOXB	4A	BX	VG			28	26	PY/BSM/1	88.80	FR/0/50	88.56	89.42	18418	0.83	6.41	
		- medium to darkish grey, totally brecciated, strongly silicified dolomite. Frags to 2.5 cm, angular to subrounded, clast supported. Upper 2.0 m contains >50% white to light grey chert fragments ± ave clast 1-2 cm. Lower portion contains silicified dol frags ± largest frag ± 1.0 cm. Core is competent, slightly vuggy (1-2%). Pyrite occurs in breccia matrix, locally ± 5%, average 2%. Very fine dark grey to black ox noted under high power on binocular micro											89.40	FR/0/50						
89.42	114.37		DOXH	4A	CR	BX	VN	VG	24	22	PY/OS/0.1			89.42	90.22	18419	0.88	0.62	
± 200 GAL/MIN H2O @ 100.00m		- medium to darkish grey weakly crackled, very locally brecciated, weakly silicified dolomite. Crackle texture dominant over breccias, which are local. White calcite veining/breccia matrix is fairly weak, minor vuggy texture to												90.22	91.10	18420	0.93	0.38	
														91.10	92.01	18421	0.72	0.14	
														92.01	92.98	18422	0.99	0.24	
														92.98	93.98	18423	0.96	0.10	
														93.98	94.98	18424	1.02	0.17	

4.35 / 1.78m

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUNE 26,95

DDH 69SU6134

PAGE 8 OF 13

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
												101.10	FR/0/45	94.98	95.98	18425	1.00	0.21	
		core (1-2% open space). Pyrite is sparse,										106.50	FR/0/30	95.98	96.98	18426	0.99	0.14	
		disseminated throughout and slightly more										110.50	FR/0/40	96.98	97.98	18427	1.00	0.07	
		abundant in bx zones. Some bx zones are										111.56	FR/0/60	97.98	98.98	18428	1.01	0.07	
		strongly limonitic (within 91.10-92.80m are												98.98	99.98	18429	0.94	0.21	
		several lim zones). Rare bedding visible.												99.98	100.98	18430	0.96	0.07	
		occl. cherty nodule.												100.98	101.98	18431	0.92	0.14	
														101.98	102.98	18432	0.83	0.10	
														102.98	103.98	18433	0.84	0.07	
														103.98	104.98	18434	0.78	0.07	
														104.98	105.98	18435	0.87	0.10	
														105.98	106.98	18436	0.70	0.14	
														106.98	107.98	18437	0.94	0.17	
														107.98	108.98	18438	0.81	0.17	
														108.98	109.98	18439	0.79	0.21	
														109.98	110.98	18440	0.88	0.10	
														110.98	111.98	18441	1.00	0.48	
														111.98	112.98	18442	0.79	0.24	
														112.98	113.98	18443	0.91	0.24	
														113.98	114.37	18444	0.34	0.27	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 1, 1995

DDH 695UG134

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST.	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
114.37	115.52		DOSB	5A	BX	VG	VN		29	26	CL/BM/5 // PY/DS/0.1	115.35	SH/2/40	114.37	114.96	18445	0.55	1.41	
		- totally brecciated, light to medium grey, dolomite to angular clasts to 2.5cm. Matrix is only locally calcareous (some dolo, some calcite). Minor vuggines, minor calcite veining @ base of sect. Lower 20cm of unit has extremely limonitic matrix and displays shear fabric @ 40°TCA. Trace disseminated pyrite.												114.96	115.52	18446	0.35	0.07	
115.52	124.18		DOCH	4A	CR	BX	VN		18	22	PY/DS/0.1	116.12	FR/0/30	115.52	116.52	18447	0.90	0.41	
		- medium to dark grey lightly crackled + locally brecciated, basically unaltered dolomite with dark grey chert nodules. Breccia + crackle texture strongest @ base of section. Weakly calcite veined, 1-2 mm wide, random distribution and orientation. Pyrite as v/fg disseminations throughout and on fracture surfaces. Strongest @ base of section. Locally core broken over 20-30cm stretches.										119.27	FR/0/40	116.52	117.52	18448	0.80	0.10	
												121.29	FR/0/40	117.52	118.52	18449	0.61	0.03	
												122.82	FR/0/40	118.52	119.52	18450	0.87	0.03	
												124.00	FR/0/40	119.52	120.52	18451	0.90	0.62	
														120.52	121.52	18452	0.90	0.21	
														121.52	122.52	18453	0.94	0.19	
														122.52	123.52	18454	0.82	0.17	
														123.52	124.18	18455	0.56	0.14	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: ADH

Date: JULY 1

DDH 69SU6134

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
124.18	130.46		DOCH	6A	CR	BX	VN		20	0	PY/CO DS/0.5			124.18	125.18	18456	0.89	0.10	
														125.18	126.18	18457	0.82	0.07	
														126.18	127.18	18458	0.90	0.07	
														127.18	128.18	18459	0.84	0.07	
														128.18	129.18	18460	0.80	0.07	
														129.18	130.18	18461	0.90	0.10	
														130.18	130.46	18462	0.30	0.17	
130.46	131.66		DOXB	5A	BX	CR			29	28	PY/BM/1			130.46	131.06	18463	0.60	1.23	
												130.80	FR/0/40	131.06	131.66	18464	0.56	2.85	
												131.66	LC/0/75						

- lightish grey variably crackled and brecciated essentially unaltered dolomite w pale grey chert nodules to 20 cm. Dol scratches and powdered well fizz w HCl. In brecciated sections clasts are angular to subrounded up to 1.5 cm, generally < 1.0 cm. Unit is randomly calcite veined 1.0-5.0 mm one every 10-50 cm @ various ∡TCA. Pyrite occurs along fractures (semi-stylolitic) as dark grey vfg sx and as sparsely disseminated brassy grains.

- medium grey, very strongly crackled to generally completely brecciated, very hard, strongly silicified dolomite. Clasts sub-ang to subrounded to 1.5 cm. Clast supported. Very fine grey pyrite/sulphides in silicic breccia matrix @ 1-2% on average, locally 3-4%. Lower contact very sharp @ 75° TCA.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JUL 41/95

DDH 95U6138

PAGE 11 OF 13

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALT'N INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
131.66	131.88		PGTF	2A	GO	BX			29	LB	PY/GO/1	131.80	SH/2/60	131.66	131.88	18465	0.22	1.78	
		-dark grey pyritic clay gouge containing ≤ 40% medium gray to white LMST fragments up to 3.0cm. Frags are subangular to rounded. Upper contact abrupt, lower contact obscured. Pyrite = 1-2% as fg xals in gouge																	
131.88	140.92		DOSB	OA	BX	CR	VN	V6	29	22	PY/DS/0.1			131.88	132.88	18466	0.58	0.38	
		medium to dark grey, very strongly brecciated and cracked, weakly silicified dolomite (DOCH protolith) in a very strongly limonite, calcareous matrix. BX is clast supported, clasts/frags ≤ 2.0cm but they are irregularly cracked.										139.88	FR/0/50	132.88	133.88	18467	0.81	0.14	
												139.10	FR/0/60	133.88	134.88	18468	0.54	1.17	
												140.50	FR/0/70	134.88	135.88	18469	0.81	0.10	
														135.88	136.88	18470	0.52	0.03	
														136.88	137.88	18471	0.60	0.07	
		Pyrite as very fine disseminations ≠ 0.1-0.5%.												137.88	138.88	18472	0.75	0.07	
		=> one lot 1cm of cg calcite veining as they can be noted to x-cut clasts + breccia matrix, random orientations. Iron oxygenes to core												138.88	139.88	18473	0.89	0.17	
														139.88	140.92	18474	0.87	0.17	
140.92	145.15		DOSB	3A	BX	CR			29	22	PY/DS/0.1	141.90	FR/0/60	140.92	141.92	18475	0.86	0.10	
		-same as for 131.88-140.92 except no limonite in matrix. Completely brecciated, clast clasts from protolith DOCH as cracked. Very sparse vfg pyrite as disseminations.										143.00	FR/0/30	141.92	142.92	18476	0.76	0.27	
												144.80	FR/0/60	142.92	143.92	18477	0.75	0.03	
														143.92	145.15	18478	0.88	0.03	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 2/95

DDH 95UG134

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
145.15	145.56		LMST	4A	BX	60			28	—	PY/GO/1	145.15	UC/0/60	145.15	145.56	18479	0.39	0.14	
		- mottled medium gray and white finely fine grained brecciated limestone is very strong clay rich pyritic gouge on fracture. LMST has been veined by white calcite veining into moderately competent pieces.										145.56	LC/0/30						
145.56	146.01	FZ	GOUG	6A	60				29	22	PY/GO/1			145.56	146.01	18480	0.36	0.17	
START FW FAULT ZONE		- light grey clay rich gouge. Contains ± 40% milled carbonate fragments to 1.0 cm. Gouge contains ± 1% fine embedded pyrite, evenly distributed.																	
146.01	146.95		DOSB	5A	BX	VN			28	22	PY/DS/0.1	146.20	FR/0/50	146.01	146.95	18481	0.90	0.14	
		- medium grey, completely brecciated, moderately hard, weakly silicified dolomite. Clasts subangular to subrounded to 1.5 cm. Weakly calcite veined, 1 every 5-15 cm @ various ∡TCA. Contains trace to minor disseminated pyrite.																	
146.95	152.05	FZ	GOUG	4A	60				29	22	PY/GO/2	147.20	SH/2/60	146.95	148.12	18482	0.83	0.21	
FW FAULT ZONE		dark to light grey, clay rich fault gouge material w ± 25-40% rock fragments, generally milled and rounded. Fragments include: red MFCA (from FW), DOXB, DOSB, "fuchsite" MFCA. Proportions roughly equal, size varies from ± 1.0 cm												148.12	149.65	18483	1.03	0.31	
														149.65	151.17	18484	0.71	0.17	
														151.17	152.05	18485	0.64	0.14	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APN

Date: JUL 12/95

DDH 95U6134

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											to cored fault block ± 50-60 cm (estimate). Some altered carbonate contains ± 3-4% fg grey sulphides. Gouge contains ± 2-3% sulphides. Weak shear fabric noted in one spot @ ± 60° TCA.								
152.05	162.85		MFLA	AR	MS	PP	VN		14	12	HE/CO/0.1	154.87	FR/0/55	152.05	153.05	18486	0.95		
											greyish red, fairly soft, non-calcareous, massive feldspar porphyritic weakly altered mafic volcanics (MFFL porphyritic). Weakly to moderately qtz-carb veined @ 60-80° TCA, 1-3mm, one every 5-20cm. Minor hem on fracts	156.40	FR/0/40	153.05	154.05	18487	0.95		
												161.80	FO/0/65						
162.85	166.41		MFFL	SG	MS	PP			0	0	HE/CO/0.1	164.75	FR/0/70						
											medium green, basically unaltered mafic volcanic flow ± local mild carbonatization. Contains ± 25%, 2-3mm feldspar phenos. Mod hem on fracts, rare qtz-carb vein.								
166.41	166.41		EOH																

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GOLDEN BEAR OPERATING COMPANY

MINE ASSAY REPORT (SAMPLES)

DATE: [illegible]

ASSAYER: [illegible]

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
18372	LG 134	.07				
3		.07				
4		.07				
5		.07				
6		.82				
7		.34				
8		.75				
9		.38				
18380		.31				
1		.17				
2		.14				
3		.17				
4		.14				
5		.07				
6		.03				
7		.14				
8		.10				
9		.03				
18390		.14				
1		.10				
2		.03				
3		.14				
4		.07				
18395		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 24/88

MINE ASSAY REPORT (SAMPLES)

ASSAYER: [illegible]

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
18396	UG 134	.60				
7		.45				
8		.07				
9		.10				
18400		.14				
1		.17				
2		.55				
3		.24				
4		.24				
5		.14				
6		.58				
7		.21				
8		.07				
9		.21				
18410		.41				
1		.14				
2		.07				
3		.14				
4		.17				
5		.24				
6		.45				
7		2.43				.16
8		6.41				.55
18419		.62				

GOLDEN BEAR OPERATING COMPANY

DATE: June 28, 1996

MINE ASSAY REPORT (SAMPLES)

ASSAYER: [illegible]

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
18420	UG 134	.38				
1		.14				
2		.24				
3		.10				
18424		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 2 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: G.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
18425	UG 134	.21				
6		.14				
7		.07				
8		.07				
9		.21				
430		.07				
1		.14				
2		.14				
3		.07				
4		.07				
5		.10				
6		.14				
7		.17				
8		.17				
9		.21				
440		.10				
1		.48				
2		.24				
3		.24				
4		.17				
18445		1.41				

GOLDEN BEAR OPERATING COMPANY

DATE: July 24/92

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
18446	UG 134	.07				
7		.41				
8		.10				
9		.03				
450		.03				
1		.62				
2		.21				
3		.14				
4		.17				
5		.14				
6		.10				
7		.07				
8		.07				
18459		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: July 3, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
18460	4G 134	.07				
1		.10				
2		.17				
3		1.23				
4		2.85				
5		1.78				
6		.38				
7		.14				
8		1.17				
9		.10				
18470		.03				
1		.07				
2		.07				
3		.17				
4		.17				
5		.10				
6		.27				
7		.03				
8		.03				
18479		.14				

GOLDEN BEAR OPERATING COMPANY

DATE: May 3/85

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
18480	UG 134	.17				
1		.14				
2		.21				
3		.31				
4		.17				
18485		.14				

GOLDEN BEAR OPERATING COMPANY

DATE: Jun 4, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: (J)

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %
18486	UG 134	.27			
18487		.34			

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: [illegible]
PAGE 1 OF 1

DRILL HOLE # 695 UG 135 PROJECT AREA: GRIZZLY SECTION: 23 150 N

DRILL HOLE LOCATION DATA

EASTING: 25068.36
NORTHING: 23953.69
ELEVATION: 956.44
HOLE LENGTH (M): 231.04

DRILL DIARY

STARTING DATE: 21/06/95 (DD/MM/YY)
COMPLETION DATE: 30/06/95 (DD/MM/YY)
LOGGED BY: JFB RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ BQ
SURVEYED BY: BP EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	274.944	-70.483	SURVEY
#1	60.96	255.5°	-74.3°	SPERRY
2	152.39	264.0°	-74.2°	SPERRY
3	106.68	262.0°	-75°	SPERRY
4				
5				

This test was not used, value used (255.5°) is probably correct as btw 273.8° & 26[illegible]

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	17.02	MFTF		119.29	124.38	ARG1	
17.02	34.72	MFCA		124.38	126.15	MFCA	
34.72	35.96	MFAS		126.15	131.83	POLO	
35.96	43.86	MFCA		131.83	143.27	SLST	
43.86	45.05	ARG1		143.27	151.85	LMST	
45.05	45.81	MFCA		151.85	173.73	LMSL	
45.81	48.71	MFAS		173.73	175.25	LOST	
48.71	52.09	MFCA		175.25	183.10	LMSL	poor recovery
52.09	52.32	VNQZ		183.10	183.79	GOUG	poor recovery
52.32	58.92	MFCA		183.79	185.31	LOST	
58.92	78.80	MFLP		185.31	189.89	LMSL	poor recovery
78.80	85.99	MFCA		189.89	192.94	LOST	change to BQ
85.99	86.34	BSDY		192.94	195.07	LMSL	
86.34	86.86	ARG1		195.07	200.56	LOST	
86.86	87.68	GOUG		200.56	203.00	LMSL	poor recovery
87.68	88.09	BSDY		203.00	207.30	BSDY	
88.09	95.50	ARG1		207.30	208.18	MFCA	poor recovery
95.50	102.59	LMST		208.18	211.23	POSB	V. poor recovery
102.59	105.02	CHRT		211.23	212.75	LOST	
105.02	110.64	MFCA		212.75	223.75	GOUG	good recovery
110.64	112.59	ARG1		223.75	231.04	MFCA	
112.59	119.29	MFCA					

COMMENTS:
At 173.12 m, high water pressure was hit (400 psi).
At ~180m encountered sandy unit, problems w/ caving & rods getting stuck
At ~190 m changed to BQ. Hole ended at 231.04 ~20 ft in to FW because BQ rods were shearing. NQ rods had to be blasted from hole, 170 ft of rods were recovered undamaged, 10' of rods recovered cracked, 450' of rods left in hole btwn 180' & 630'.
- Hole plugged at 60'.

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 23, 1995

DDH 695U6 135

PAGE 1 OF 17

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	17.02		MFTF	AG	BN				12	24	PY/PT/1 HE/VN/.5	11.68	BN/1/60						
		med greenish-grey to greyish-maroon, med to coarse grained xl. tuff; looks like fol^{ed} GRDR; most xl. frag^{s} are alt^{ed} to green sericite; Core pervasively carbonatized; Loc thin shears.																	
17.02	22.51		MFCA	SA	BD	BN			0	24	PY/DS/2								
		Most rock originally MFAS; loc xl. rich portions + 2 loc. bands of black ARGI; Loc patches of int sil^{n}; Minor loc ser along bedding.																	
22.51	22.68		MFCA	IN	BX				28	24	PY/DS/1	22.60	SH/3/85	22.51	22.68	19216	0.17	0.14	
		Subrounded matrix supported re-healed brxx; clasts = 10% & are MFCA; matrix is black, soft & non-calcareous 4 cm shear in the centre.																	
22.68	23.56		MFCA	AG	BN				12	24	PY/PT/2	23.08	SH/0/50						
		Essentially the same as 0.00-17.02; Loc sil^{ed} patches.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
23.56	34.72		MFCA	6T	BD				12	24	PY/DS/1 HE/VN/1 FU/BD/.1	31.42	BD/0/85						
		Light tan to grey; original rock = MFAS; minor loc sericite along bedding; local minor shears; occasional thin q/c stringers & irregular qtz veinlets.										33.32	BD/1/75						
34.72	35.96		MFAS	2G	BD				0	0	PY/DS/1 HE/VN/.1	35.19	BD/0/60						
		Pervasively carbonatized & chloritized; minor thin q/c stringers.																	
35.96	43.86		MFCA	5T	BD				0	24	PY/DS/.5 HE/VN/1	39.20	BD/1/60						
		Med tan to grey to maroon; Basically the same as 23.56-34.72; 1% qtz & q/c stringers (thin).										42.18	BD/1/70						
												42.22	FR/0/70						
												43.65	FR/0/70						
43.86	45.05		ARGI	2N	BD				0	0	PY/DS/1	44.32	BD/0/75						
		Minor interbeds of tan MFCA; Local weak sil".																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
45.05	45.81		MFCA	6T	BD				0	24	PY/DS/1	45.14	BD/0/75						
		Same as above.																	
45.81	48.71		MFAS	4G	BD				0	0	HE/VN/.1	48.00	BD/0/70						
		Pervasively chloritized & carbonatized; Up to 1% qtz & a/c stringers.																	
48.71	52.09		MFCA	T6	BD	BN			0	22	PY/PT/2 HE/DS/1 FV/VN/.1	48.98	BD/0/60						
		Variable tan to whitish to green; the green portions are fresher, chloritized volcanics; Rock type is fine bedded tuff w local med. gr^ed xl. rich portions; Small micro folds are common; 5% local irregular qtz veinlets & nodules; Brassy py occurs as patches, along frac^s & diss^ed; Local clusters										49.01	FR/0/50						
		of diss^ed red hem are pseudomorphs of py; Sericite/ tale present on some frac^s.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: June 24, 1995

DDH G95 UG 135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
52.09	52.32		VNQZ	8W	MS				0	0	PY/DS/.1	52.32	LC/0/55	52.09	52.32	19217	0.24	0.10	
		Local small frag's of pyritic MFAS included within the qtz vein; Upp^r contact irregular.																	
52.32	58.92		MFCA	4A	BN				12	26	PY/PT/2 HE/VN/.1 FU/VN/.1	54.32	BD/0/45	55.28	55.45	19218	0.17	0.07	
		Generally darkish grey to locally light gray or brown; most rock is originally MFAS w/ loc x/ rich portions; Occasional bands of moderate sil^n; Sericite/talc on some frac's; Local thin shears; 55.28–55.45: sheared & gouged @ 75° tca; Brassy py occurs in patches, along frac's & diss^d; Several micro-folds noted; Rare thin MRGI interbeds.										55.45	SH/4/75						
												58.64	BD/0/40						
58.92	78.80		MFLP	3G	BD	MS			0	0	PY/PT/.1 HE/VN/.1	59.95	BD/1/50						
		Pervasively chloritized & carbonatized; 1% thin qtz ± p/c stringers.										64.85	BD/0/60						
		64.01–64.83: MFCA interband.										69.03	FR/0/60						
		78.63–78.80: Highly broken core.										74.90	FR/0/50						

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: June 24, 1995

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
78.80	85.99		MFCM	TG	BD	MS			14	24	PY/DS/.1 | FU/SP/.1	85.25	SH/3/20						
		Med tan-green to grey; original rock = MPAS ~ dMFLP loc xl rich portions; Occasional gougy shears; Core is moderately to highly fracᵉᵈ; Many tuff fragˢ + fracˢ are sericite altᵉᵈ. 85.71 – 85.40 ; Black basalt dyklet.																	
85.99	86.34		BSDY	IN	AM				0	0									
		many tiny calcite filled amygdules; Rock is very calcareous; Rock is also very soft & crumbly; The MFCM above the upper contact is cooked for 15 cm.																	
86.34	86.86		ARGI	IN	BD				0	27									
		Totally ground, broken core ~ much loss; Rock is strongly silᵉᵈ ARGI.																	
86.86	87.68		GOUG	IA	60	CR	MS	BD	28	0									
		Totatally ground & broken ~ poor recovery; The following rock types were noted between 2 footage blocks: *① dark grey clay gouge, ② MFCM, ③ soft black BSDY, ④ Re-healed, crackled ARGI ~ calcite filling the fracˢ.																	

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* This gouge is possibly driller's bentonite.

NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
87.68	88.09		BSDY	1N	AM				22	0									
			Totally ground & broken w poor recovery; The following																
			rock types were noted: ① BSDY (70%), ② clast																
			supported, re-healed angular brxx → clasts are block																
			ARG1, matrix is white qtz; The BSDY is the same																
			as that in 85.99 - 85.34.																
88.09	95.50		ARG1	1A	BD	V6			19	22	PY/DS/1	89.76	BD/0/60						
			Finely bedded, calcareous ARG1 w loc patches of weak to mod sil.									93.93	BD/0/60						
			Core is very to extremely highly frac'd; rare thin shears;									93.99	FR/0/60						
			local vngs; most of the core fizzes weakly.									94.70	SH/1/65						
95.50	102.59		LMST	NW	BD	BX			12	22	PY/DS/.5	98.60	BD/1/65	102.11	102.40	19219	0.26	0.45	
			Tightly interbedded black LMST (50%), whitish-grey LMST (15%),									98.66	FR/0/70						
			black ARG1 (35%); occasional bands of sil"; Core highly									99.60	BD/1/70						
			frac'd along bedding planes; minor loc thin shears; Minor loc									99.76	SH/0/70						
			re-healed, angular clast supported brxx; Py is more common in ARG1.																
			102.11 - 102.40: Irregular qtz vein.																
102.59	105.02		CHRT	VA	BO	CR			12	28	PY/DS/.5	102.66	BD/1/70						
			Rock types are: ① white crackled sil'ed LMST (30%), ② white									102.69	SH/0/70						
			bedded sil'ed LMST (50%), ③ whitish-grey non-sil'ed LMST, (10%)																
			④ Black non-sil'ed ARG1 (10%), all which are interbedded;																
			Loc/ thin shears; stylolites common in the LMST.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
105.02	110.64		MFCM	AT	BD	SH			16	22	PY/DS/2 | HE/SP/.1	106.72	BD/1/20						
			med grey to tan MFCM (80%) w interbeds of black									106.72	SH/0/20						
			ARGI; 1.6 m interbed of very sil'ed LMST noted; overall,									109.16	BD/1/15						
			sil' is patchy & weak to moderate; MFCM contains talc/sericite									110.40	BD/1/15						
			on most frac's & loc concentrations of red hem spots; Thin																
			shears are common which make up 5% of total interval.																
110.64	112.59		ARGI	IN	BD				0	24	PY/DS/.5	110.95	BD/2/10						
			Interbedded black calcareous ARGI (90%) & grey MFCM (10%);									112.52	BD/1/15						
			Local moderate sil'; 1% irregular qtz stringers & nodules.																
112.59	119.29		MFCM	SM	BD	SH			14	22	PY/ps/1 | FU/SP/.1	114.62	BD/2/10						
			Interbedded grey MFCM (90%), black ARGI (5%) & grey									116.55	BD/0/15						
			LMST (5%); All rock types are patchily sil'd (weak to mod);									116.01	SH/1/20						
			Several thin shears (2-3% of total rock);																
119.29	124.38		ARGI	NA	BD				0	22	PY/DS/2 | FU/BD/.1	119.96	BD/0/55						
			Tightly interbedded black ARGI (80%) & medium grey									119.90	SH/0/60						
			MFCM (20%); Rare patches of weak sil'; Occasional thin									124.06	BD/0/65						
			shears, locally w talc/sericite (if in MFCM); Rare thin qtz																
			stringers.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: June 25, 1995

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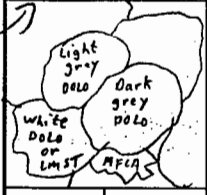
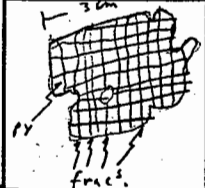
FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
124.38	126.15		MFCA	SA	BD				0	24	PY/DS/2	125.86	BD/6/55						
		Original rock = MFAS; Loc patches of intense sil^{n} along bedding; Rare calcite stringers (thin).																	
126.15	131.83		DOLO	AW	MS	BX			12	18	PY/PT/2. FU/SP/.1			126.15	127.15	19220	0.93	TR	
		Mottled dark to light grey to white; Generally, the boundaries												127.15	128.15	19221	1.05	TR	
		between the different colours are gradational & poorly defined;												128.15	129.15	19222	1.03	TR	
		Locally, however, the rock appears brxx^{ed} (re-healed, clast												129.15	130.15	19223	0.92	TR	
		supported, angular) which is supported by the presence of												130.15	131.15	19224	0.91	0.27	
		occasional angular frags of MFCA ± green mica; minor												131.15	131.83	19225	0.65	TR	
		loc whiteish blobs of LMST present.																	
		131.03: 2 large py. grains (3 cm) which have been brxx^{ed}																	
		This unit is an enigma & it may well represent an entire																	
		re-healed brxx zone ± washed out textures.																	
131.83	139.31		SLST	IN	MS	BD	VG		0	22	PY/DS/.1	132.56	BD/1/80	131.83	132.83	19226	0.97	0.07	
		Very fg.^{ed} hard SLST; Bedding difficult to discern										138.96	BD/0/85						
		for most of the interval; Core is very vuggy; weakly																	
		sil^{ed} throughout; Colour generally black to locally dark grey.																	
		134.11 – 135.48: Highly frac^{ed}.																	
		SLST is calcareous.																	





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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: June 25, 1995

DDH 6950G135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
139.31	143.27		SLST	1N	BD				12	22	PY/DS/.1	139.42	BD/1/70						
			Very similar to 131.83 – 139.31 except that bedding is									139.45	FR/0/70						
			very discernable & veins are very rare; Parting is very common									142.10	FR/0/85						
			along bedding planes which creates a highly fractured									142.16	BD/1/85						
			"potato chip" style of core; SLST is calcareous.																
143.27	151.85		LMST	NW	BD				12	26	PY/DS/1	147.38	BD/1/60	145.69	146.19	19227	0.53	0.17	
			Tightly interbedded black to dark grey argillaceous LMST (75%)									147.43	FR/0/65	149.85	150.85	19228	1.00	TR	
			& white to light grey LMST (25%); local irregular qtz (white-grey)									150.09	BD/0/50	150.85	151.85	19229	1.06	TR	
			veinlets & frags (2-4 cm); The ^LMST contains possible																
			replaced crinoid remnants (LMBC?); Both rock types are									146.05	SH/0/25						
			patchily sil^ed (moderate to intense); Local thin shears;																
			The argillaceous LMST commonly parts along bedding; Occasional																
			stylolites in the white-grey LMST.																
			146.05: 1 thin shear face here @ 25° tca w/ extremely																
			f.g.^ed grey py.																
151.85	164.85		LMSL	1N	BD	FR			12	28	PY/DS/.5	156.58	BD/1/40	151.85	152.81	19230	0.89	0.10	
			Generally f.g.^ed to very f.g.^ed, silicified carbonaceous black									157.97	BD/1/45	152.81	153.31	19231	0.49	0.34	
			LMSL; local thin shears; up to 1% qtz & q/c stringers											153.31	154.31	19232	0.84	0.14	
			(1mm – 2 cm); sil^ is variable moderate to intense.											154.31	155.31	19233	1.02	0.10	
			152.81 – 153.31: clast supported re-healed, sub-angular											155.31	156.31	19234	1.04	0.07	
			brxx w/ calcite or extremely f.g.^d grey sx matrix (1% overall).											156.31	157.31	19235	0.94	0.38	

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All rock has diss^ed f.g.^ed brassy py.

159.06 – : Highly frac^d & broken core.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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DDH 695 U6 135

Date: June 26, 1995

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
164.85	166.19		LMSL	NW	BD	MS	FR		12	28	PY/VN>DS/.5		
		A highly frac'd version of 151.85 - 164.85 ± 35-40% qtz veinlet material cutting thru; Brassy py favours the qtz veinlets.											
166.19	173.73		LMSL	1N	BD	FR	VG	CR	12	28	PY/DS/.5	168.88	BD/1/40
		Essentially a vuggy version of 151.85 - 164.85; moderately to highly frac'd; Locally crackled.										170.00	BD/1/20

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
157.31	158.31	19236	0.88	0.21	
158.31	159.31	19237	0.79	0.10	
159.31	160.31	19238	0.95	0.31	
160.31	161.31	19239	0.95	0.31	
161.31	162.31	19240	1.00	0.14	
162.31	163.31	19241	0.76	0.17	
163.31	164.31	19242	0.80	0.07	
164.31	164.85	19243	0.40	0.14	
164.85	166.19	19244	1.15	0.10	
166.19	167.19	19245	0.70	0.41	
167.19	168.19	19246	0.82	0.07	
168.19	169.19	19247	0.76	0.07	
169.19	170.07	19248	0.96	0.07	
170.07	171.59	19249	0.70	0.21	
171.59	173.12	19250	0.23	0.10	
173.12	173.73	19251	0.03	1.06	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: June 27, 1995

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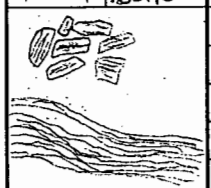
FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
173.73	175.25		LOST																
175.25	177.69		LMSL	IN	MS	FR			12	28				175.25	176.17	19252	0.07	0.14	
		Same as 151.85 – 164.85; Core is highly frac^ed.												176.17	177.69	19253	0.35	0.24	
177.69	182.54		LMSL	NA	MS	BD	VG		12	28	PY/DS/.1			177.69	179.21	19254	0.50	0.41	
		Basically the same as 151.85 – 164.85 w̄ intermixed frag^s of												179.21	180.74	19255	0.48	0.10	
		dark grey (qtz sst ?); Core is very vuggy; Core is												180.74	182.26	19256	0.40	0.31	
		highly broken.												182.26	182.54	19257	0.15	0.17	
		179.21 – 182.26 : 90% bedded, vuggy, locally brxx^ed																	
		dark grey (qtz sst ?).																	
182.54	183.10		LMSL	OW	LM	BX	CR	VG	14	29	HE/VN/25% / PY/EU/0.1%	~182.70	BD/0/60°	182.54	183.10	19301	0.25	0.34	
		white w/ oxidized (hematite?) staining. bedded/laminated silicified										~182.90	BD/0/60°						
		limestone. laminations ~ 0.5 cm size; locally crackled & brecciated																	
		oxidized staining along bedding & fractures, small vugs throughout. breccia is																	
		clast supported, clasts slightly rotated. the location of both the																	
		upper & lower contacts is suspect due to poor recovery between the																	

182.26 & 183.79 footage tags. Contains oxidized pyrite xtals ~0.1%

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: June 3095

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	%C
183.10	183.79		GOUG	3A	GO	SH			29					183.10	183.79	19302	0.17	0.24		
		8cm block of med grey crackled silicified carbonate w/ hematite staining along fractures. below this is ~20 cm of recovered gouge, soft, crumbly, moderate clay content, dark grey (greenish) w/ ~10% light grey clay rich material. Volcanic origin																		
183.79	185.31		LOST																	
185.31	189.89		LMSL	60	BD	FR			29	29	HE/VN 1-3%			185.31	186.84	19303	0.39	3.29	0.04	0.2
		same unit as 183.54 - 183.10 but crushed into a sand/gravel. hematite stained. med sand w/ silt & some clay balls to ~187. then a gravel w/ grain size from coarse sand to ~1.5cm, angular fragments. Fragments cannot be scratched w/ a steel blade & do not effervesce in acid. Possibly ground up by drilling												186.84	188.37	19304	0.55	3.50	0.05	0.3
														188.37	189.89	19305	0.60	3.02	0.04	0.1
189.89	192.94		LOST																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: June 30 '95

DDH G95UG135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
192.94	195.07		LMSL	OW	BX	CR			26	29	HE/VN/25%			192.94	194.46	19306	0.9	0.55	
		silicified Limestone, brecciated w/ hematite staining along fractures, hard (cannot be scratched), does not react w/ HCl, similar to the unit from 188.54 - 183.10 but no evidence of bedding. One clast appears to have been previously brecciated. v. poor core recovery.												194.46	195.07	19307	0.5	0.75	
195.07	200.56		LOST																
200.56	202.08		LMSL	60										200.56	202.08	19308	0.15	1.85	
		same med grained sand as in 185.31 - 189.09, very poor recovery, possibly fallen down hole during drilling																	
202.08	203.00		LMSL	OW	BX	CR			26	29	HE/VN/25%			202.08	203.00	19309	0.5	0.58	
		same silicified Limestone w/ hematite as above. ~ 20cm interval of sub rounded pebbles is all that was recovered.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: June 30

DDH G95UG135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
203.00	207.30		BSDY	N	MS	AM	VS		O		CA/AM/1%			203.00	204.57	19310	0.89	0.24	
		4m basalt dyke, w/ calcite amygdules & some calcite veining, the level of oxidation & complete lack of calcitic material in the surround LMSL could be due to heat & fluids from the emplacement of this dyke. The location of the upper contact is estimated due to poor recovery btwn 208.08												204.57	205.69	19311	1.04	0.24	
														205.69	206.45	19312	0.71	0.07	
														206.45	207.30	19313	0.67	0.27	
		≈ 203.61. At the lower contact is a 5cm clay rich grey/ green gouge																	
207.30	207.53		MFCA	SG	FR	VN			16	19	PY/VN 10.5			207.30	207.53	19314	0.19	1.47	
		v. soft pale green carbonate altered volcanic which is locally silica rich and hard (silica rich areas are pale grey) the soft, greenish areas are very reactive w/ HCl indicating high calcite content, numerous small veins containing fine grained sulfides																	
207.53	208.18		MFCA	OA	BX	CR	VN				HE/PY 30%			207.53	208.18	19315	0.57	1.82	
		brecciated, mid grey to pale green, soft clay bearing hematite rich matrix sub angular, rotated, clasts up to 1cm, hematite is v. abundant up to ≈ 30%, carbonate altered - strong reaction w/ HCl, parent rock likely high in pyrite as a source for the hematite possibly PYTF(?)																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: June 30

DDH G95UG135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
208.18	211.23		DOOB	6A	BX	MS	FR	VN	28	22	PY/EU/3%			208.18	209.70	19316	0.10	0.96	
											poor recovery - ~30cm of pebbles, some rounded (from drilling)			209.70	211.23	19317	0.14	0.17	
											in the interval from 208.18 to 209.7 Some pebbles of silicified dolomite -								
											hard, effervescence v. slightly when scratched, some fragments of								
											brecciated dolomite, poorly consolidated w/ soft gouge								
											matrix & some sheared clays along fracture, matrix is med								
											grey w/ some fine grained sulfides. Between 209.7 & 211.23								
											gouge is ~60% clay, sheared. Rockfrags present are								
											sheared & crackled MFCA w/ ~5% pyrite as Euhedral xtals								
											lower 6-7cm contain pebbles (sub rounded by drilling) of								
											pale grey cherty rock (silicified carbonate?)								
211.23	212.75		LOST																
212.75	222.70	FWF	GOUG	A	GO	BX	FR	VN	29	29	PY/DS/20%	215.08	SH/0/45	212.75	214.27	19318	0.64	0.34	
											large interval (~10m) of fault gouge & breccia 2 shear	217.50	SH/0/20	214.27	215.33	19319	1.01	0.34	
											orientations can be seen. the 45° to core axis set	221.30	SH/0/25	215.33	215.80	19320	0.45	0.07	
											is later stage as it cross cuts the shallower angled shears	222.60	SH/0/45	215.80	217.02	19321	0.39	0.10	
											in some places, rock ranges from dark grey to light grey to			217.02	217.92	19322	0.85	0.17	
											pale green & pink. The upper 6m of the unit is ~35-40%			217.92	218.84	19323	0.85	0.07	

* from this sample down Recovery was not done, values are ratioed fm Geotech Recovery

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: July 1

DDH G95 UG135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														218.84	219.65	19324	0.73	0.21	
		dark grey matrix w/ light grey clasts (@1-2cm) of silicified												219.65	220.67	19325	0.91	0.38	
		carbonate, subangular-subrounded. dark grey matrix + gouge is												220.67	221.90	19326	0.75	0.84	
		soft + friable w/ abundant fg. sulfides (~50%). At ~218 rock												221.90	222.70	19327	0.65	0.21	
		becomes lighter grey, amount of matrix + gouge decrease to ~																	
		15-20%, this material is lighter grey but still contains 10-15%																	
		fg. sulfides. Clasts are mostly MFCA w/ some (< 5%) carbonate.																	
		At ~222 is a 1/2 m section of gouge + brecciated MFCA w/																	
		no grey matrix. this rock is pale green + pale pink mottled, soft																	
		+ non reactive w/ HCl. below this is a dark grey gouge/breccia																	
		identical to the one at the top of this unit																	
222.70	223.75	FWF	GOUG	2A	SH	GO	BX		29	16				222.70	223.75	19328	0.85	0.34	
		dark grey w/ white + pink banding + clasts), sheared fault gouge w/										223.02	SH/0/30°						
		an argillite component (black, w/ graphitic slip planes + no fg. sulfides)										222.75	SH/0/70°						
		the white to pale pink clasts + beds are MFCA - soft, slow reaction w/										222.93	SH/0/80°						
		HCl. The shears noted in the structure column are graphitic										222.87	SH/0/80°						
		slip planes. Clasts are sub ang. to subrounded. ~ 50% graphitic										223.33	SH/0/45°						
												223.59	SH/0/45°						
		matrix. 50% MFCA																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: July 1

DDH G95UG135

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
223.75	226.00		MFCA	GA	FR	GD	VN		26	16	PY/VN/3%/HE/ST/5%	224.50	GO/3/80°	223.75	224.62	19329	0.72	0.07	
		pale grey w/ green & pink banding, soft, mildly reactive w/ HCl										224.87	GO/3/80°	224.62	225.40	19330	0.74	0.03	
		top ~ 30cm is gouge & brecciated w/ some dark grey, graphitic										225.50	GO/2/80°	225.40	226.00	19331	0.59	0.07	
		matrix. Below that MFCA is fractured w/ gouge intervals ~ 2cm thick										225.92	GO/2/75°						
		every 10-15cm, some local hematitic staining 10% & fg. sulfide										226.0	LC/0/80°						
		bearing veins along fractures ~ 5%. Lower contact is a 1cm thick																	
		gouge over which is an abrupt colour change.																	
226.00	231.04		MFCA	3R	GO	SH			26	0	PY/EU/0.1%	226.31	BN/3/80°	226.0	227.10	19332	0.94	0.14	
	bend of hole	red, very hematite rich MFCA, locally brecciated & gouged, veined										226.59	GO/3/60°	227.10	227.99	19333	0.67	0.14	
		throughout, broken intervals from 227.10-227.90 & 228.45-228.75;										226.99	FR/0/55°	227.99	229.51	19334	0.88	0.38	
		229.34-229.75 & 230.65 to end of hole, the unbroken competent										227.66	GO/2/63°	229.51	231.04	19335	1.10	0.21	
		sections are red w/ green phenocrysts (christmastree rock) rock is										228.24	SH/0/35°						
		quite soft, unreactive w/ HCl except for some calcite veinlets, locally										228.75	SS/0/30°						
												231.00	SH/0/20°						
		sheared, parent rock possibly tuff or flows, massive or crudly bedded																	
		w/ phenocrysts & locally, lithic clasts from 2mm-2cm diameter,																	
		clasts are altered volcanics, lowest 10 cm of hole entered a																	
		gouge sheared zone w/ some dark grey carbonaceous matrix w/ ~																	
		0.1% py. hole was ended ~ 20ft into footwall due to drilling																	

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GOLDEN BEAR OPERATING COMPANY

DATE: June 13, 1990

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19216	UG 135	.14				
7		.10				
8		.07				
9		.45				
19220		TR				
1		TR				
2		TR				
3		TR				
4		.27				
5		TR				
6		.07				
7		.17				
8		TR				
9		TR				
19230		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: JUNE 28, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19231	UG 135	.34				
2		.14				
3		.10				
4		.07				
5		.38				
6		.21				
7		.10				
8		.31				
9		.31				
19240		.14				
1		.17				
19242		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 6, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG - NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19243	UG 135	.14				
4		.10				
5		.41				
6		.07				
7		.07				
8		.07				
9		.21				
250		.10				
1		1.06				
2		.14				
3		.24				
4		.41				
5		.10				
6		.31				
19257		.17				
19301		.34				
2		.24				
3		3.29		.2		.04
4		3.50		.3		.05
5		3.02		.1		.04
6		.55				
7		.75				
8		1.85				
19309		.58				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 2, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19310	46 135	.24				
1		.24				
2		.07				
3		.27				
4		1.47				
5		1.82				
6		.96				
7		.17				
8		.34				
9		.34				
320		.07				
1		.10				
2		.17				
3		.07				
4		.21				
5		.38				
6		.24				
7		.21				
8		.34				
19329		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 2, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: (1)

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19330	UG135	.03				
1		.07				
2		.14				
3		.14				
4		.38				
5		.21				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: July 31-95

PAGE 1 OF

DRILL HOLE # G95UG136 PROJECT AREA: Grizzly SECTION: 234000

DRILL HOLE LOCATION DATA

EASTING: 25079.324

NORTHING: 23980.237

ELEVATION: 955.906

HOLE LENGTH (M): 207.56 m

DRILL DIARY

STARTING DATE: 11/07/95 (DD/MM/YYYY)

COMPLETION DATE: 12/07/95 (DD/MM/YYYY)

LOGGED BY: CMC RIG: Connors

CONTRACTOR: Advanced CORE SIZE: NQ/BQ

SURVEYED BY: PH EDITED BY: JFB

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR				
1	0.00m	278.17	-22.304	SURVEY
2	61.26m	282°	-23.5°	SPERRY
3	121.92m	283°	-23.0°	SPERRY
4	207.56m	283° (assumed)	-23.0°	ACID
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	7.86	MFAS	CASE	188.26	199.85	MFLP	Reduced to BQ @ 196.90 m
7.86	16.21	MFCA	CASE to 15.24m	199.85	202.83	INFCA	
16.21	24.70	MF AS		202.83	207.56	MFLP	
24.70	31.48	MFCA					
31.48	32.31	BSDY					
32.31	63.46	MFCA					
63.46	65.77	ARGI					
65.77	104.80	MFCA					
104.80	112.94	ARGI					
112.94	116.03	MFCA					
116.03	118.70	ARGI					
118.70	130.80	MFCA					
130.80	132.89	ARGI					
132.89	136.40	MFCA					
136.40	137.71	ARGI					
137.71	166.29	DOSB					
166.29	170.99	DOCH					
170.99	171.75	LOST	* High Water Pressure (400psi)				
171.75	172.82	DOCH	172.82: Water @ 300 gal/min				
172.82	178.00	DOSB					
178.00	181.66	LMCH					
181.66	188.26	GOUG					

COMMENTS:

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

DDH G95UG136

Date: 03/07/95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	7.86		MFAS	5G	PP	VN			0	12	HE/NN/5% CA/VN/5%	0.01 m	VN/1/35						
		medium-dark green porphyritic volcanic rock, phenocrysts are 2-5mm, pale green ~40% of rock, rock is med-soft, mild reaction w/ HCl, veined & numerous										1.17m	VN/1/55						
		small calcite veins from 1mm-1cm in width, most are hematite stained										1.82m	VN/2/50						
		1 ~ 25cm qtz vein, v. hard & massive; calcite in veins = ~5%, hematite in										3.68m	VN/4/40						
		veins & patches = ~5%, at ~4.20 to 5.10 is end interval of similar										4.20m	UC/1/60						
												5.10m	LC/1/60						
												6.00m	VN/1/50						
												6.30m	VN/1/30						
		textured rock, lighter green w/ red hematite patches & more abundant																	
		veining & fracturing, the upper & lower contacts of this unit are																	
		sharp, each being a hematite stained calcite vein (see diagram). lower																	
		contact of unit is gradational into a paler more bleached unit.																	
		the LC & UC in the structure table refer to this interval, the vein @																	
		is the 25cm Qtz vein.																	
7.86	10.38		MFLA	7A	PP	VN	BN		0	24	PY/PT/5% HE/NN/3%								
		pale green, porphyritic volcanic, locally veined & cracked w/ pyrite																	
		mineralization as patches & wisps ~5%, chl is alteration of porphyry & groundmass,																	
		hematite is present in veins ~3%, rock is banded slightly colour & textural																	
		change over ~20cm (flows?) at 9.78 is a 10cm thick interval containing																	
		a mix of ~ rounded (50%) (clasts) breccia - clasts are silicified (ms) from this pt.																	
		down to end of unit rock is v. veined & cracked.																	

NORTH AMERICAN METALS CORP Logged by: CMC DDH G95UG136

LITHOLOGY LOGGING SHEET

Date: July 3 '95 PAGE 2 OF 17

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
10.38	11.70		MFCA	8A	CR	GO	Bx	MS	16	14	PY/SP/0.1	10.78m	GO/3/65						
			fine grained, altered volcanic w/ small gouge intervals (10%), crackled, minor pyrite as spots (~0.1%), soft, v. slight reaction to HCl, w/in gouge / breccia intervals clasts are rounded, matrix clay rich light grey									11.45	GO/3/55						
11.70	16.21		MFCA	6G	PP	MS	VN	FR	14	24	PY/PT/5%	11.90	GO/3/60°						
			light green, porphyritic, sheared altered volcanics, upper ~80cm is crackled, br. w/ small (5cm) gouge interval, pyritized w/ ~5% pyrite as veins + patches, at 14.68m is a 5cm basalt dyke (the VN structure angle @ 14.68 corresponds to this dyke), majority of unit is massive + competent.									14.68	VN/3/65°						
16.21	23.16		MFAS	4G	PP	VN	FR		0	12	HE/VN/1%	21.90	SH/4/30						
			med dark green porphyritic volcanic rock. (same as unit from 0 - 7.86) w/ hematite staining on fractures. at 21.64 - 22.10 rock is slightly sheared, v. soft + platy but not clayey gouge), at 19.60 is a v. large patch of pyrite - 7cm diameter.									19.20	FR/0/25						
												19.93	FR/0/35						
												20.04	FR/0/35						
												23.10	SH/4/30°						
23.16	24.70		MFAS	R	PP	VN	FR		14	18	HE/ST/30%								
			more of the same unit, but w/ abundant hematite staining, core is broken up (most pieces <10cm																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: July 3/95

DDH G95UG136

PAGE 3 OF 17

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
24.70	27.49		MFCA	7A	BD	BN	VN		12	26	PY/PT/5%/MA/ST/20%	25.10	BD/3/60						
		bedded volcanics, grey, pale pink & pale green colours (pale green = more pyrite)										26.41	BD/4/60						
		carbonatized - soft, bleached, mildly reactive w/ HCl.																	
		pyrite present to ~5% as spots, veins, patches																	
27.49	31.48		MFCA	6A	BD	SH			0		MA/BD/1%/PY/DS/1%	27.49	FO/20/45°						
		w/ 40% interbedded ARGL, argillite is graphitic w/ some graphite slip planes										30.74	BD/1/40°						
		along fractures, locally deformed, w/ cherty (white massive) interbeds 1-2cm thick										31.25	BD/1/40°						
		py is Argi DS + EU to ~ 1%, MFCA is pale grey/white/pale green-																	
		bedded, w/ white chert layers, soft, sericitic slip planes, py DS, PT &																	
		SP ~ 1%																	
31.48	32.31		BSDY	N	NS	AM			0	0	CA/AM/3%	31.48	UC/0/80						
		Basalt dyke w/ calcite & chloritic amygdules, upper contact																	
		is sharp, L.C. is missing																	
32.31	37.95		MFCA	GA	LM	BD	GR	GO	12	14	PY/SP/1% MA/BD/1%	32.35	BD/2/40°						
		w/ interbedded argi (~20%), both MFCA & Argillite are laminated,										33.85	BD/1/50°						
		PY present as spots (~1%), in both. Down through unit MFCA becomes										34.83	GO/3/65						
		cracked & there are a few small gouge zones (2-10cm thick),										35.00	BD/2/60°						
		MFCA is soft & does not react w/ HCl. Magnesite present along										35.22	GO/2/65°						
		bedding & slip planes. (1%)										37.08	BD/2/65°						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: July 5 '95

DDH G95UG136

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
37.95	44.25		MFCA	GT	BD	CR	BX		26	14	Py/SPI/2%	38.23	GO/3/65°	37.95	38.94	18591	0.89	0.21	
			~50% cracked & brecciated MFCA w/ deformed & veined argillite.									39.00	BD/2/20°	38.94	39.93	18592	0.91	0.10	
			At 39.00 MFCA is relatively undisturbed & bedded (BD=20°), at 39.43									39.44	SH/1/30°						
			is a Bx zone w/ subrounded to rounded clasts of MFCA & chert									39.68	SH/1/70°						
			matrix supported w/ ~25% clasts, matrix is black argillite, contacts									41.90	FO/2/5°						
			are gouge. Below this rock is alternately bedded, crackled,																
			brecciated or foliated w/ ~10% deformed argilite.																
44.25	49.77		MFCA	GA	CR	BX	GO	VN	28	24	Py/Pt/5%/MA/BD/2%	45.85	BD/2/50°	44.25	45.06	18593	0.87	0.10	
			upper 70cm is a reheated heterolithic breccia w/ MFCA									48.00	FR/5/150°						
			Cobbly & silicified limestone clasts, sub angular - subrounded from																
			2mm - 3 cm in size 70% clasts. Below this is a bedded																
			MFCA w/ Py spots & patches 3-5%. some cherty lenses, unit alters																
			bedded, cr & bx to ~48.0m where there is a 60cm gouge!																
			breccia zone, moderately consolidated, friable ~60% clasts - many																
			are broken, matrix is platy, sheared - not quite clay.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: July 5

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
49.77	59.74		MFCA	GT	BD	FR	VN		12	24	PY/SP/2%	49.80	BD/1/35°						
											altered epiclastics - v. thinly bedded, overall f.g. w/ occasional coarser	53.00	BD/1/20°						
											layers up to med-sand size., BD >=15-20°, beds are locally	54.80	BD/1/5°						
											folded (small scale - see diagram), in upper 4.5 m py ~2% sp.+pt.,	56.90	BD/1/25°						
											1 ~30 section w. Hematite staining, 1 50cm section red green,								
											overall rock is pale greenish tan core becomes more broken towards								
											bottom of unit w/ few minor (<1cm) gouge layers, some fracturing along								
											bedding.								
59.74	63.96		MFCA	GA	BD	CR	BX	GO	28	14	PY/BD/0.05%	60.18	BD/1/45°						
											deformed argillite + broken + brecciated bedded MFCA, at ~60.65 is	60.92	BD/1/20°						
											a gouge coated blue argillite + a qtz vein >1cm wide the lower portion	61.78	SH/1/30°						
											of the vein core is broken up + mixed w/ some gouge (drilling), below								
											this is a ~5m section of bedded MFCA, veined + fractured								
											along bedding w/ < 3cm gouge intervals, at 61.76 is a rehealed								
											breccia of MFCA clasts-bedded, bottom of unit contains bedded,								
											locally broken-brecciated MFCA + deformed argillite								
											w/ small gouge shear zones: pyrite is present along bedding and as								
											patches in argillite <1%, in MFCA, 0.1%.								

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
63.46	65.77		ARGI	N	BD	LM	VN		0		PY/BD/1%	64.00	BD/1/60°						
			laminated, bedded argilite w/ interbeds of MFCA (~15%), MFCA interbeds									64.35	BD/1/30°						
			are pale green-tan ; ~1-2cm thick, one thicker ~30cm interval																
			of MFCA w/ chlorite alteration (mariposite?), some cherty lenses along bedding,																
			py 1% along bedding and assoc w/ qtz veinlets, chlorite alteration																
			w/in MFCA (mariposite?)																
65.77	68.00		MFCA	GT	BD	LM	VN		12	14	PY/VN/0.1%	66.54	B/2/30°						
			thinly bedded f.g. tuff w/ occasional thicker beds of coarser tuff									66.88	F2/0/40°						
			material, chlorite altered, along bedding and phenocrysts, weakly veined									67.46	BD/2/35°						
			lower 40cm is dark green w/ chlorite altered., 1cm of incipient									68.00	LC/0/15°						
			shearing ; 1 fault w/ au gouge but ~2-3cm of displacement seen,																
			~~Base~~ LC is irregular (erosive?)																
68.00	76.01		MFCA	G	MS	VN			0	24	PY/VN/3%								
			massive altered volcanics, vary from mid/dark green to yellow, to red/green,																
			identical to rocks at top of hole but more alteration, Hematite is present																
			as spots ; along veins, PY in veins and as patches to ~3%.																
			at 73.46 is a 5-10 cm qtz vein w/ ~15% pyrite, rock																
			is moderately veined (Ca ; chert) ; locally calcitic (reacts slowly with HCl)																
76.01	77.50		MFCA	GT	BD	FR			12	14	PY/BD/1%	76.40	BD/1/20°						
			thinly bedded slightly deformed MFCA, bedding is wavy ;									77.15	F2/3/30°						
			irregular, LC is irregular (erosive?), py present along bedding									77.30	BD/2/20°						
			at 77.15 is a 5cm ~~Qtz~~ clayey gouge zone																

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
49.77	59.74		MFCA	GT	BD	FR	VN		12	24	PY/SP/2%	49.80	BD/1/35°						
			altered epiclastics - v. thinly bedded, overall f.g. w/ occasional coarser									53.00	BD/1/20°						
			layers up to med-sand size, BD > ≈15-20°, beds are locally									54.80	BD/1/5°						
			folded (small scale - see diagram), in upper 4.5 m py ~2% sp & pt.,									56.70	BD/1/25°						
			1 ~ 30 section w/ Hematite staining, 1 50cm section med. green,																
			overall rock is pale greenish tan core becomes more broken towards																
			bottom of unit w/ few minor (<1cm) gouge layers, some fracturing along																
			bedding.																
59.74	63.46		MFCA	GA	BD	CR	BX	GO	28	14	PY/BD/0.05%	60.18	BD/1/45°						
			deformed argillite & broken & brecciated bedded MFCA, at ~60.65 is									60.92	BD/2/20°						
			a gouge contact below argillite - a qtz vein >10cm wide the lower portion									62.78	SH/1/30°						
			of the vein core is broken up & mixed w/ some gouge (drilling), below																
			this is a ~50cm interval of bedded MFCA, veined & fractured																
			along bedding w/ < 3cm gouge interval, at 61.26 is a rehealed																
			breccia of MFCA clasts - bedded, bottom of unit contains bedded.																
			locally broken - brecciated MFCA interbedded w/ deformed argillite																
			w/ small gouge shear zones. pyrite is present along bedding and as																
			patches in argillite <1%, in MFCA, 0.1%.																



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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
77.50	78.30		MFCA	7T	BD	VN	FR		O	24	PY/VN/5% HE/ST/10%								
		poorly bedded + deformed MFCA, cream colour w green + red alteration of some beds (chlorite, hematite?), hematite staining + pyrite occurs in veins throughout. 5% calcite veining, veins are 2cm wide + vuggy, also some 'talc' veins - v. soft + soapy white material also some veinlets (1%) of v.f.g. sulfides.																	
78.30	92.14		MFCA	GA	MS	PP	VN		O	28	HE/RP/1% HE/SP/10%/PY/SP/5%	92.00	FO/1/55°						
		altered medium grained tuff (?), massive w/ chert + calcite veins. hematite is present as spots + locally has replaced euhedral pyrites. Py is present as spots + assoc. w/ qtz/calcite veining at 5%, matrix colour varies from mid green-grey to white, rock is speckled green + red w/ chloritic altered phenocrysts + hematite staining. Lower m is v. slightly foliated.																	
92.14	104.80		MFCA	GT	BD	BN	VN		O	14	PY/SP/1%								
		w/ interbedded argillite (30%) + minor chert + carbonate (1%) MFCA is bedded, f.g. w occasional coarser intervals, py, hematite + chloritic alteration are generally bedding controlled, DS py occurs locally, argillite is v. thinly bedded, locally deformed + bx. argillite intervals range from 10 cm - almost 1m in length and contain thin MFCA + chert interbeds. Chert is white, carbonate is pale grey massive moderately silicified limestone.																	

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Date: July 7'95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
104.80	112.94		ARGI	2A	BD	VN	BX		14		PY//PT/5%	105.55	BD/1/65							
			interbedded w/MFCA(tuffs), 35% MFCA, 65% ARGI, interbedded on fine scale (i.e <1cm beds) + also larger intervals of pure arg (to 1m+) & MFCA									107.00	BD/1/60							
			(to 0.50m). thoroughly veined w/ calcite + qtz veins, locally crackled +									112.08	BD/1/70							
			brecciated py present as patches to ~5% not obviously bedding																	
			controlled. ~1% assoc w/ veining.																	
112.94	116.03		MFCA	4A	MS	VN			12	14	PY/SP/1%									
			grey mottled, massive MFCA - veined, upper 50cm crackled +																	
			brecciated, pyrite present as spots ~1%																	
116.03	118.70		ARGI	2A	BD	Lm	VN				PY/PT/1%	116.56	BD/1/50°							
			90%+ argillit w/ interbedded MFCA on lamination scale, calcite veined																	
			py. localized patches, one small massive interval (116.85) which																	
			is ~3cm thick - bedding parallel																	
118.70	127.13		MFCA	7A	PP	MS	VN	CR	16	28	PY//PT/5% HEMRP/5%			120.11	121.20	18594	1.00	0.07		TR
			to ~134m massive porphyritic volcanics, to ~170.40 rock is f.g.											121.20	122.22	18595	0.99	0.27		TR
			greyish tan w/ ↑ hematite staining, @ ~170.40 rock becomes coarser											122.22	123.24	18596	1.00	0.14		TR
			grained - phenocrysts up to 4mm - hematite altered (pink - red) ground											123.24	124.20	18597	0.91	0.21		TR
			mass is aphanitic, cream colour, at ~122m rock is fine grained											124.20	125.00	18598	0.81	0.17		TR
			again, pale green groundmass w/ pink - red phenocrysts, equigranular											125.00	126.03	18599	0.96	0.07		

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														126.03	127.13	18600	0.97	0.21	
											coarse grained interval is pyritic (spots ~ 5%), py ↑ in fg material down the unit, below 122.22 rock is quite pyritized (~ 5%) increasing to ~15% below 123.75 fracturing increases, minor brecciation & gouge								
127.13	130.80		MFCA	SA	BD	VN	FR		14	24	PY/SP/15%	127.43	BD/1/65°	127.13	128.17	18601	1.01	0.38	
											bedded MFCA (tuffs) w/ interbedded ARGT (30%), beds are generally 1cm or smaller, ~30°-40° intervals of dominantly MFCA - dominantly ARGT, rock is locally folded and fractured, few 1-2cm gouge shear zones ? graphitic or sericitic slip planes on fractures. Py present, locally concentrated in either veins or along	127.72	FR/0/50°	128.17	129.10	18602	0.86	0.45	
												127.88	SH/2/65°	129.10	129.84	18603	0.78	1.03	
												128.17	BD/1/60°	129.84	130.80	18604	0.88	1.75	
												128.27	FR/0/65						
												128.42	BD/1/55°						
												128.46	FR/0/30°						
											bedding, also as spots or patches throughout, some fracture surfaces w/ a silty, black, fine sulfide coating	128.54	SH/2/50°						
												129.28	BD/1/30°						
												129.38	FR/0/30°						
												129.66	FR/0/25°						
												130.54	BD/1/60°						
130.80	132.89		ARGL	SA	BD	FR			0		PY/BD/10%	130.90	BD/1/60°	130.80	131.78	18605	0.98	0.86	
											laminated to thinly bedded ARGILLITE w/ MFCA interbeds (thin) 75% argi, 25% MFCA, fractured along bedding planes, graphitic slip planes (i.e.g. sulfides) on some fracture surfaces, py is present @ about 10%, mostly bedding controlled although local concentrated along veins or in patches, from 132.50 in a	130.95	FR/0/60°	131.78	132.89	18606	0.79	0.79	
												131.62	BD/1/65						
												131.70	FR/0/70°						
												132.42	SH/2/80°						
												132.65	SH/3/60°						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														130.70	131.76				
		~20cm interval of mod grey, soft rock w/ limonitic staining ± ~10% disseminated PY, crackled possibly MFCA, upper + lower contact are gouge, below this interval to end of unit is crackled, veined (calcite) + brecciated argi.												131.76					
132.89	136.40		MFCA	TA	BD	FR	SH	GO	16	24	PY/PT/10%	132.93	SH/2/60°	132.89	133.85	18607	0.88	0.75	
		bedded MFCA w/ small amount (~10%) of interbedded argillite, MFCA is soft, non reactive w/ HCl, pyrite is present as patches as well as some veins + local disseminations, rock is fractured w/ shearing or slip planes along fractures,										134.22	BD/1/50°	133.85	134.87	18608	0.91	0.62	
												134.24	FR/0/60°	134.87	135.64	18609	0.70	0.48	
												134.98	SH/2/47°	135.64	136.40	18610	0.67	0.93	
												135.35	BD/1/60°						
												135.41	FR/0/70°						
												135.60	SH/3/60°						
												136.17	SH/2/60°						
136.40	137.71		MGI	BA	BD	FR	SH	GO	28		PY/PT/15%	136.50	SH/3/70°	136.40	137.04	18611	0.61	1.51	
		interbedded argillite ± MFCA (60%-40% Argi to MFCA), rock is very sheared, locally brecciated ± gouge. Gouge matrix is dark grey silty clay w/ abundant fg. sulfides.										136.88	SH/3/60°	137.04	137.71	18612	0.45	0.31	
												137.10	SH/3/75°						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
137.71	142.27		DOSB	A	FR	CR	BX		28	22			
		White to dark grey crackled and brecciated dolomite, weakly silicified, reacts slowly w/HCl, dark grey-black infilling around clasts of f.g. sulfides occurs locally (0.1%), rehealed & competent											
142.27	143.83		DOSB	5A	FR	CR	BX		28	22	L1/Co/0.1%		
		same rock as above but very broken up. - core is in 10cm or smaller chunks, gungy yellow limonitic coating on fracture surfaces from ≈142.60' ± 142.90.											
143.83	147.77		DOSB	5A	FR	CR	BX		28	22	PY/IN/1%	144.62	FR/0165
		medium grey, brecciated dolomite, competent, moderately silicified but still reacts w/HCl, f.g. sulfides w/in matrix & as coatings on some fracture surfaces (1%)										145.56	FR/0175
												147.32	FR/0155°
147.77	152.45		DOSB	7A	CR	BX			28	24		148.13	FR/0135°
		light grey, brecciated dolomite, competent & rehealed, moderately silicified (hard, reacts v. slowly w/HCl when powdered) w/ dark grey cherty layers, no sulfides, fracture surfaces are clean										149.90	VN/1185°
												150.19	FR/0160°
												152.40	FR/0170°

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
137.71	138.60	18613	0.87	0.24	
138.60	139.58	18614	0.89	0.14	
139.58	140.51	18615	0.79	0.17	
140.51	141.36	18616	0.81	TR	
141.36	142.27	18617	0.89	0.07	
142.27	143.26	18618	0.47	0.21	
143.26	143.83	18619	0.34	TR	
143.83	144.81	18620	0.88	0.17	
144.81	145.84	18621	1.00	0.27	
145.84	146.75	18622	0.76	0.07	
146.75	147.77	18623	0.98	0.07	
147.77	148.87	18624	0.97	0.07	
148.87	149.79	18625	0.90	0.03	
149.79	150.76	18626	0.96	0.07	
150.76	151.56	18627	0.79	0.31	
151.56	152.45	18628	0.86	0.07	

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152.45	158.90		DOLB	GA	CR	VN	BX		28	22	PY/IN/1%	153.15	FR/0/60	152.45	153.60	18629	1.13	TR	
		med grey, moderately silicified dolomite breccia w/ clearly lenses.										154.83	FR/0/80°	153.60	154.50	18630	0.86	0.07	
		some fracture surfaces have slickensides or minor (1cm) gouge;										155.75	SS/0/70°	154.50	155.50	18631	0.98	0.31	
		broken rock, fine g. sulfides are locally present w/ matrix of										156.05	GO/1/50°	155.50	156.53	18632	0.94	0.21	
		re-healed breccia & on some fracture surfaces (1%)										157.00	FR/0/80°	156.53	157.28	18633	0.77	0.03	
														157.28	158.10	18634	0.81	0.03	
														158.10	158.90	18635	0.74	0.99	
158.90	161.15		DOLB	9A	CR	VN	BX		28	22	PY/IN/1%	160.05	FR/0/55	158.90	159.78	18636	0.87	0.44	
		light grey to white breccia w/ occasional white chert clasts,										160.32	FR/0/90	159.78	160.32	18637	0.52	0.17	
		black stringers of f.g. sulfide throughout (1%), clasts are angular												160.32	161.15	18638	0.66	0.10	
		avg. 8cm w/ a darker grey interval (30cm) at 159.45 w/																	
		smaller rock angular clasts (2cm)																	
161.15	163.37		DOLB	6A	CR	VN	BX		28	22	PY/IN/7%	161.40	FR/0/45°	161.15	162.27	18639	1.10	0.21	
		med-light grey breccia w/ upper 30cm small clast size (<5mm)										162.80	FR/0/85°	162.27	163.37	18640	1.09	0.07	
		below that clast avg. 2cm w/ clearly intervals (5cm thick)																	
		stringers of f.g. sulfides common below clasts & along fracture																	
		surfaces (7%)																	

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163.37	166.29		DOSB	3A	CR	BX	GO		28	22	PY/IN/3%	163.47	GO/3/45°	163.37	164.40	18641	0.70	1.85		
			dolomite breccia. from pale to v. dark grey in colour, moderately silicified									163.74	FR/0/70°	164.40	165.35	18642	0.82	2.33		
			w/ some clasts, layers of dark grey chert. Upper 30 cm contains									164.59	GO/2/50°	165.35	166.29	18643	0.54	2.16		1.63
			~30% gouge material, dark grey silty clay w/ ~1% pyrite									164.80	FR/0/80°							
			Above 164.63, breccia contains btwn 5-10% f.g. sulfide stringers &									165.35	FR/0/5°							
			coatings on fracture surfaces, below 164.63 visible sulfides decrease																	
			& chert 'clasts' (5cm+) are common (30%).																	
166.29	170.99		DOCH	5A	VN	CR	BX		26	14	Li/ST/15%	166.79	FR/0/85°	166.29	167.24	18644	0.69	3.22	0.05	2.38
			grey dolomite, massive but bx (crackled) w/ chert nodules (dark grey)									167.30	FR/0/90°	167.24	168.26	18645	0.84	2.15		1.63
			both are xcut by quartz & calcite veinlets, texture ranges from									167.40	FR/0/70°	168.26	169.26	18646	0.95	1.37		1.09
			crackled (40%) to v. well brecciated (20%) w/ clasts < 1cm									168.10	FR/0/75°	169.26	170.20	18647	0.59	1.89		1.36
			subangular to subrounded, limonitic (yellow) staining occurs											170.20	170.99	18648	0.43	2.95		2.31
			in areas of more intense brecciation.																	
170.99	171.75		LOST																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX Au
171.75	172.82		DOCH	5A	VN	CR	BX		26	14	Li/ST/30%	171.45	FR/U/75°	171.75	172.82	18649	1.27	5.76	0.10	4.22
		same unit as above the last zone. here it is ~80% well										172.70	FR/U/80°							
		brecciated w/ small sub angular-subrounded clasts & abundant																		
		limonitic staining, at 172.40 is a v. pale grey DOSB																		
		w/ f.g. sulfide stringers, there is 30 cm of this interval, the																		
		upper contact (20°) looks erosional lower contact is lost in a zone of																		
		rubble & poor recovery below 172.52, the lowest 50 cm of unit is																		
		the same Dolomite/chert breccia w/ limonitic staining, 60% chert																		
		clasts.																		
172.82	175.56		DOSB	8A	CR	BX			29	22				172.82	174.04	18650	0.23	9.70	0.03	7.68
		sand & gravel rubble. clasts recovered range from												174.04	174.79	18651	0.43	4.83	0.04	4.01
		med sand up to 10cm, mixture of lithologies but												174.79	175.56	18652	0.81	5.42	0.05	4.15
		dominated by a pale grey breccia wich is most likely																		
		similar to the DOSB uphole, larger clasts are vuggy & non																		
		reactive to HCl - appears that all calcite has been removed.																		
		this is a zone of v. high water (500 gal/min) - rubble may be																		
		a result of ground water, weathering or a fault system w/																		
		all fines ~~[illegible]~~ washed out (clay ~ 1%). The sample b/w																		
		172.82 & 174.04 was taken b/w blocks due to poor																		
		recovery, loc. of 174.79 was interpolated b/w 2 blocks																		

* high water

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NORTH AMERICAN METALS CORP Logged by: CMC
LITHOLOGY LOGGING SHEET

Date: July 10 '95

DDH B95UG136

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%	CHEMEX AU
175.56	178.00		DOSB	3A	BX				28	22				175.56	177.09	18653	1.41	2.43		1.97
		more of the sand ± gravel, broken ant as separate unit												177.09	178.00	18654	0.34	3.15	0.32	2.24
		because the majority of clasts >1cm are a much darker																		
		grey DOSB, 3%, limonitic clasts. Sampled btwn blocks.																		
178.00	181.66		LMCH	3A	BX	CR			28	0	PY/IN/10%	178.61	FR/0145°	178.00	179.05	18655	0.83	0.82		0.48
		thoroughly brecciated limestone w/ chert nodules & clasts, reacts										179.05	FR/0/80°	179.05	180.14	18656	0.63	0.72		0.54
		strongly to HCl, clast supported w/ a 30cm interval (@ 179m)										179.38	FR/0/45	180.14	181.66	18657	0.14	0.96		0.61
		of matrix supported breccia w/ small (<1cm) clasts. f.g. sulfides										179.46	FR/0/85°							
		in matrix & on fracture surfaces 10:15%. Poor recovery in sample																		
		interval 180.14 - 181.66 (20cm btwn these two blocks). Towards bottom of unit																		
		is ~10cm gouge interval.																		
181.66	186.94		GOUG	6A	BX	GO			29	22		183.38	FR/0/50°	181.66	183.18	18658	0.32	2.64		2.11
		light grey gougy breccia w/ clasts of limestone & chert (5-10%),										183.90	FR/0/35°	183.18	184.15	18659	0.91	1.20		0.88
		matrix is a sandy clay, light to dark grey + about 5% pyrite										184.71	SH/2/40°	184.15	185.18	18660	0.86	0.68		0.48
		& fine sulfides. pyrite increases down the unit to ~185m										186.53	SH/1/50°	185.18	186.00	18661	0.58	0.38		0.14
		below 185 m, the rock is not gougy. rebrecciated breccia w/												186.00	186.94	18662	0.55	0.48		0.34
		MECH & limestone clasts, the gouge below this interval is mostly																		

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMK / JFB

Date: July 10 '95 / July 13, 1995

DDH G95 UG 136

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
			brecciated and sheared MFGB w/in a dk. b. grey sulfide rich matrix.																
186.94	188.26		GOUG	8R	SH	GO			29	24	PY/ DS/ 1%	187m	SH/5/40°	186.94	187.55	18663	0.58	0.10	
			very sheared MFGB, locally reduced to clay w/ MFGB clasts, most of unit is "incipient" gouge, 1% diss. pyrite. rock is pale orange/pink w/ grey (5mm) clay layers.											187.55	188.26	18664	0.59	0.51	
188.26	199.85		MFLP	4R	MS	CR	SH		18	14	HE/PV/20	197.09	FR/0/75	188.26	189.28	18665	1.00	0.96	
			Generally massive w/ loc xl rich portions; loc patches of re-healed crackle (10-15% overall); Rock is pervasively hematitic & hem is intense on fracs;									197.22	FR/0/35	189.28	190.30	18666	0.86	0.27	
														190.30	191.30	18667	0.88	0.14	
reduced to BQ @ 196.90 m														191.30	192.33	18668	0.88	0.14	
			188.26 - 189.28: moderately sheared.											192.33	193.85	18669	1.47	0.10	
			188.26 - 194.87: Highly frac'd core.																
			Slickensides are commonly seen on fracture surfaces;																
			1% q/c stringers → some of this carb is calcite & some is DOLO/Ankerite; Fresh diss'd shiny black hematite noted																
			here & there.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 13, 1995

DDH 695 UG 136

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
199.85	202.83		MFCA	5G	MS	SH			16	24	PY/DT/1 / FU/SP/10 HE/VN/1	200.74	FR/0/35	199.85	200.85	18670	e-95	0.07	
		Colour variable from medium green to locally med. tan or white;										202.38	FR/0/85		"				
		Original rock is MFTF & MFAS, locally xl rich; The xls are commonly alt^ed to bright green mica; local thin shears; local irregular qtz veinlets up to 15 cm wide.																	
202.83	207.56		MFLP	4R	MS	BD			12	14	HE/PV>VN/20	205.22	SH/0/70						
		Basically a xl rich version of 188.26 - 199.85; locally, bedding occurs; Q/c stringers are rare.																	
		202.90 - 203.90: Very highly frac^ed ± local thin shears & slickensided surfaces.																	
		202.83 - 203.90: 2 small segments of re-healed matrix supported breccia w rounded clasts.																	
		EOH = 207.56 m																	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 8, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: W

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
18591	4G 136	.21				
2		.10				
3		.10				
4		.07				
5		.27				
6		.14				
7		.21				
18598		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Dean

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %
18599	UG 136	.07			
600		.21			
1		.38			
2		.49			
3		1.03			
4		1.75			
5		.86			
6		.79			
7		.75			
8		.62			
9		.48			
610		.93			
1		1.51			
2		.31			
3		.24			
4		.14			
5		.17			
6		TR			

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 10, 1985

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Dean

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
18617	4G 136	.07				
8		.21				
9		TR				
620		.17				
1		.27				
2		.07				
3		.07				
4		.07				
5		.03				
6		.07				
7		.31				
8		.07				
9		TR				
630		.07				
1		.31				
2		.21				
3		.03				
4		.03				
5		.99				
6		.44				
7		.17				
8		.10				
9		.21				
18640		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Dean

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
18641	UG 136	1.85				
18642		2.33				

GOLDEN BEAR OPERATING COMPANY

DATE: July 12 /95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
UG136 18643		3.16				
4		3.22		5.10		0.05
5		2.18				
6		1.37				
7		1.37				
8		2.95				
9		5.76		3.84		0.10
50		9.70		0.59		0.03
1		4.83		071		0.04
2		5.42		0.75		0.05
3		2.43				
4		3.15		1.75		0.32
5		0.82				
6		0.72				
7		0.96				
8		2.64				
9		1.20				
60		0.68				

GOLDEN BEAR OPERATING COMPANY

DATE: July 14 /95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: Wayne

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
UG136186A1		0.38				
2		0.48				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 15, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
18663	UG 136	.10				
4		.51				
5		.96				
6		.27				
7		.14				
8		.14				
9		.10				
18670		.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G95UG137 PROJECT AREA: GRIZZLY SECTION: 23800N

DRILL HOLE LOCATION DATA

EASTING: 25048.951
NORTHING: 23800.354
ELEVATION: 978.629
HOLE LENGTH (M): 205.12

DRILL DIARY

STARTING DATE: 03/07/95 (DD/MM/YYYY)
COMPLETION DATE: 08/07/95 (DD/MM/YYYY)
LOGGED BY: APH RIG: COMMADO
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: PH EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	266.990	-77.133	SURVEY
1	60.96	277.0	-76.5	SPERRY
2	121.91	FAILED TEST - AZIMUTH ≠ 315°		
3	121.91	272.0°	-74.5	SPERRY ⇐ RETEST.
4	197.50	273.0°	-74.0	SPERRY
5				

PURPOSE: => TO TEST GRIZZLY LOWER ZONE.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:
- 1 GAL/MIN H_2O @ 43.58m

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: ARH

DDH 95UG137

Date: JULY 5, 1995

PAGE 1 OF ____

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	1.52		CASE							1									
		- no recovery																	
1.52	8.18		MFCA	TG	MS	VN			16	14									
		- light green to reddish tan, massive to poorly bedded, moderately soft, very weakly calcareous, weakly bleached, medium to coarse grained mafic volcanic tuffs. Grain size up to 2.0-2.5mm.										3.72	FR/0/60						
												5.90	FR/0/50						
		Minor random 1% carb veining, Core mod broken.																	
8.18	14.07		MFAS	SG	MS	BD	VN		0	0		8.70	BD/1/60						
		- medium green, massive weakly to well bedded fairly soft, noncalcareous mafic volcanic tuffs. Very slight alteration locally, very weak 1% carb veining w/ light + TCA, 1 every 5-30 cm. Core very competent.										10.36	BD/1/50						
												12.70	BD/1/80						
14.07	19.20		MFCA	AG	MS	BD			14	14	PY/DS/10:1 // HE/CO/1.5	14.62	FR/0/75						
		- light greenish green to slightly reddish green, fairly soft, noncalcareous, weakly altered + bleached medium to coarse grained bedded volcanic tuffs (grains to 2.0-2.5mm). Contains fg disseminated, moderate hematite on fractures.										15.75	FR/0/65						
												15.85	BD/1/70						
												17.75	BD/1/75						
												18.12	FR/0/60						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

DDH G95UG137

Date: JULY 5 1995

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
19.20	26.93		MFCA	7G	MS	VN	60		12	14	PY/VN/1 // FU/SP/2								
			- light green, very soft, non calcareous, weakly to moderately altered volcanic tuff. Textures suggest coarse tuff (grains > 2.0mm). Contains ≤ 2-3% green mica as specks to 9.0mm. One 5-10cm gouge zone @ 22.10m. Pyrite as irregular veins ≈ 1% throughout, 2-3% @ base.													
												29.90	FR/0/40						
												26.20	FR/0/40						
26.93	28.60		MFCA	RG	MS	BD	VN		0	12		27.73	BD/1/60						
			- light reddish green to light green, moderately soft, very slightly calcareous, massive weakly bedded ash to lapilli tuff. Very weak calcite veining. Very weak alteration.									27.90	FR/0/60						
28.60	29.67		BSDY	N	MS	AM			0	0		28.60	VC/0/60						
			- dark grey to black fine grained, massive basalt dyke. ≤ 5-10% white calcite filled amygdules to 1.0cm.																
29.67	36.31		MFCA	RG	MS	BD			16	14	PY/DS/0.1 // FU/SP/0.1								
			- reddish green to light green, fairly soft, non-calcareous, massive, poorly to well bedded, medium grained, ash tuffs. Vague porphyritic textures locally. Local green mica as specks, trace disseminated pyrite. Core moderately broken throughout interval.									32.80	BD/1/80						
												34.44	FR/0/75						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: MDH

Date: JULY 6/95

DDH 69SU6137

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
36.31	38.18		MFCA	4A	MS	VN			16	18	PY/PT/2 // FU/SP/1								
			-darkish grey massive, moderately soft, vaguely bedded, moderately altered mafic tuff. Gray color due to patches + veins of mg pyrite ≈2-3%. Weakly qtz-carb veined, 1-3mm random ∢TCA. Ocal spot green mica to 2-3mm.																	
38.18	52.29		MFCA	GT	MS	BD	VN	SH	12	14	PY/VN/0.5								
1 GAL/MIN H_2O @ 43.88			-light greenish tan to greyish green, massive, moderately soft, weakly to moderately bleached mafic tuffs. Weakly to well bedded 60-80° TCA. Very weakly qtz-carb veined, random, 1 every 5-30cm. Pyrite increases down section as veinlets + fracture coatings. Minor interbedded ARGIT SLST 49.50 – 49.85m. Core locally moderately broken over 30-40cm sections. Local, minor shearing w̄ gouge over 5-10cm length in 2 places.										39.01 41.85 43.28 44.10 47.40 51.40	BD/1/75 FR/0/40 BD/1/70 SH/1/60 BD/1/85 BD/1/90						
52.29	55.00		SLST	2A	MS	BD			0	0	PY/BD/0.1	52.60 52.73 54.00	BD/1/75 BD/1/80 BD/1/65						
			-medium grey to black, massive, normal hardness, non-calcareous, well bedded siltstone. Graded bedding present (tops uphole) beds 0.1 – 5.0cm thick. Pyrite as brassy euhedral grains along bedding.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 6 95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
55.00	57.72		MFCA	7T	MS	BD			14	18	PY/VN/1								
			- very light tan colored, moderately soft, strongly bleached mafic tuffs in one 20cm interbed of gray SLST. Generally massive, vague bedding locally visible. Py as irregular veinlets on top 10cm of section ≤ 1-2%. Core lightly broken									56.70	BD/1/60						
57.72	61.62		MFAS	5G	MS	BD	VN		0	0	PY/DS/0.1								
			- medium green, basically unaltered, massive, poorly to moderately well bedded mafic ash tuffs. Very weakly calcite veined 0.5-2.0mm, random orientation, 1 every 15-45cm. Trace very fine disseminated pyrite									60.25	BD/1/40						
												61.30	BD/1/55						
61.62	71.27		MFCA	7T	BD	MS	VN		14	18	HE/CO/0.1 // PY/DS/0.1								
			light tan, fairly soft, essentially noncalcareous massive, weakly to well bedded, moderately bleached mafic volcanic tuffs. Weakly Fe-carb veined, minor hem on fracture surfaces, trace disseminated pyrite									64.15	BD/1/40						
												65.50	FR/0/45						
												66.85	FR/0/30						
												68.90	BD/1/25						
												70.10	FR/0/60						
71.27	72.67		MFCA	VR	MS	PP			12	12	HE/CO/0.5								
			brownish red, massive, noncalcareous, coarse grained mafic volcanic tuff. Locally texture is porphyritic in very soft feldspar phenos. Minor hematite on fractures									71.75	FR/0/90						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 7/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
72.67	92.50		MFCA	GT	MS	BD			12	16	PY/DS/0.1	73.90	BD/1/30						
			- light greenish tan to reddish tan, massive,									77.41	BD/1/40						
			non-calcareous, medium to thin bedded, fine									80.16	FR/0/35						
			grained, mod bleached mafic volcanic tuff, Bddg									83.15	BD/1/30						
			consistent. Spotty fracturing @ 86.00m in									89.73	BD/1/40						
			≈1.0m coarse tuff interbed. Pyrite as									88.20	BD/1/35						
			dissemination and narrow veinlets, locally									91.90	BD/1/45						
			1-2%, << 1% overall.																
92.50	98.20		MFCA	GT	MS	BD			12	16	PY/DS/0.1	93.39	BD/1/60						
			- light tan to greyish tan, fairly soft, non-									95.45	DD/1/35						
			calcareous, very finely bedded, massive,									96.60	BD/1/50						
			moderately bleached tuff (MFCP proto?). Rare									98.10	BD/1/80						
			1% - cm veinlets, Trace wisp dissem pyrite.																
98.20	100.97		ARGI	N	BD	PH	SH		14	12	PY/DS/0.5	98.45	BD/1/65						
			- black, very thin bedded argillite in very									99.50	BD/1/60						
			minor interbedded grey SLST (10 cm sections) and									100.57	DD/1/80						
			rare white to light grey chert interbeds (0.5 cm)																
			Bddg surfaces are phyllitic, minor shearing over																
			lowest 30cm. Unit contains ≈ 0.5% pyrite as																
			fine disseminations, often bedding parallel.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 7, 95

DDH 69SUG137

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
100.97	102.85		MFCA	9A	BD	VN			12	22	PY/DS/1								
		-extremely light grey to white, moderately hard, well bedded, very strongly bleached tuffs / cherty tuffs. Unit contains a 20cm bull qtz vein. Pyrite as fine disseminations often // to bddg.										101.50 102.65	BD/1/50 BD/1/40						
102.85	103.95		VNQZ	W	MS	SH			14	0	PY/PT/1			102.85	103.95	18701	0.87	.10	
		-massive, white bull quartz vein. Sheared (?) w 2 sericitic shears/slips. Contains patches of coarse brassy pyrite to 5-7 cm, generally near vein selvages.																	
103.95	105.00		MFCA	GA	BD	VN			14	16	PY/PT/2 // FU/PV/1	104.60	BD/1/40						
		-greenish gray, coarse grained, moderately altered, non calcareous, mafic volcanic tuff. Fairly strong, pervasive green mica throughout, one 10cm bull qtz vein. Streaky pyrite throughout ≤2% overall.																	
105.00	108.46		MFCA	GT	BD	SH	GO		18	18	PY/DS/1	105.00 105.50 107.85	UC/0/70 BD/1/60 BD/1/60						
		-light greenish tan, moderately soft, non-calcareous, moderately bleached, bedded mafic volcanic tuffs w 15% interbedded argillite (in 2-40cm sections). Sheared over top 60cm of section w ≤5% gouge. Pyrite as bedding // dissem ≤1-2%.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: API1

Date: JULY 7/95

DDH 95U6137

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
108.96	118.09		MFCA	8A	BD	SN	GO		2A	19	PY/DS/1	111.25	BD/1/50	112.97	113.97	18702	0.92	.41	
			light grey, hard, non-calcareous, well bedded,									114.97	BD/1/60	113.97	114.97	18703	0.95	.14	
			strongly bleached mafic tuffs w ≤ 20%.									117.00	BD/1/60						
			interbedded argillite. Locally shear fm ≤ 5-10%									118.09	LC/0/60						
			gouge, particularly 112.97 - 119.97 (majority of ARG)																
			is in this interval. Bedding locally contorted																
			(upper 2 cm of section). Pyrite occurs as																
			bedding / dissemenations and as patches to																
			5.0 cm, averages 1-2% over interval.																
118.09	126.17		MFCA	6G	MS	BD			0	22	PY/PT/2	119.79	BD/1/45	121.95	122.95	18704	0.99	.24	
			- light to medium green, massive, moderately									123.00	BD/1/50	122.95	123.95	18705	0.98	.41	
			hard, fine to very coarse grained, poorly									125.25	BD/1/45	123.95	124.95	18706	0.99	.34	
			to well bedded mafic volcanic tuffs.									126.17	LC/0/55						
			Grain size varies from fine to very coarse																
			(1-5 mm). Pyrite occurs as erratic patches																
			and fracture fillings ≤ 2-3% overall, ≤ 5-10%																
			between 121.95 - 124.95 m. Core is very solid																
			and competent. Lower contact strung @ 55° TLA																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 7/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
126.17	133.17		MFCA	GA	BD	GO	BX		24	24	PY/DS/1	128.00	BD/1/70	129.13	130.13	18707	0.97	1.71	
												131.40	BD/1/50						
												132.95	BD/1/45						
133.17	135.03		MFCA	TA	MS	GO	BD		22	18	PY/DS/0.1	135.03	LC/0/50						
135.03	141.49		MFCA	GA	MS	BD	BX		14	16	PY/DS/0.1	135.60	BD/1/60	137.35	138.35	18708	0.95	0.34	
												137.00	BD/1/35						
												139.60	BD/1/35						
												141.10	BD/1/45						

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contains minor, fine disseminated pyrite throughout.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
141.49	146.68		MFCA	GA	MS	PP	VN		12	24	py/$\frac{BT}{DS}$/2	141.60	FR/0/65	141.49	142.49	18709	0.92	0.10	
			- light greenish grey to medium grey, finely soft,									143.39	FR/0/30	142.49	143.49	18710	0.98	0.21	
			mildly calcareous, massive, grainy textured,									144.17	FR/0/60	143.49	144.49	18711	0.94	0.17	
			strongly bleached + epitized, coarse grained									146.68	LC/0/55	144.49	145.49	18712	0.96	0.17	
			mafic volcanic (crystal tuff.) Minor qtz-carb											145.49	146.68	18713	1.14	0.17	
			veining, random & TCA, 1mm - 10mm with one																
			every 5 - 50cm. Strong medium grained																
			equit as patches and fracture fillings																
			5-10% locally, 3-8% overall. Lower																
			contact strongly @ 55° TCA = 1cm gouge.																
146.68	157.78		LMST	4A	BD	VN	BX	60	18	12	py/$\frac{DS}{CO}$/0.5	147.70	BD/1/60	146.68	147.68	18714	0.91	0.03	
			medium to dark grey, moderately hard, strongly									149.35	BD/1/70	147.68	148.68	18715	0.97	0.07	
			calcareous, essentially unaltered thin bedded									151.60	FR/0/70	148.68	149.68	18716	0.95	0.14	
			limestone. Calcite veining, cracking + brecciation									152.60	BD/1/75	149.68	150.68	18717	0.95	2.93	
			increases down section (veining etc starts									155.00	BD/1/55	150.68	151.68	18718	0.75	3.12	
			@ 149.68m). Veining is of random orientation									157.50	BD/1/55	151.68	152.68	18719	0.94	0.79	
			1-3mm wide, X every 5 - 25cm, and as											152.68	153.68	18720	0.97	0.82	
			cracks infilling. Minor shearing + brecciation											153.68	154.68	18721	1.00	1.27	
			in lowest 15cm, lower contact @ 30° TCA. Equit											154.68	155.68	18722	0.99	0.31	
			is in 2 forms: ① brassy, euhedral equit grains,											155.68	156.68	18723	1.18	0.39	
			evenly disseminated (<< 0.5%), ② dark grey											156.68	157.78	18724	1.00	0.67	
			very fine fracture associated equit = 0.5%.																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: MN

Date: JULY 8 95

DDH 695UG137

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
157.78	159.40		LMST	3A	BD	BX	VN		28	24	PY/BS/0.5			157.78	158.59	18725	0.86	0.34	
		- darkish grey, moderately hard and calcareous, weakly silicified, bedded limestone. Bedding strongly contorted/folded and locally brecciated. Moderately calcite veined @ random ± TCA. Pyrite occurs as dark fg breccia matrix and as blebby disseminations.										159.40	LC/0/75	158.59	159.40	18726	0.79	0.07	
		lower contact sharp @ 75° TCA in 3 cm gougy breccia																	
159.40	162.03		LMST	5A	BD	VN			12	12	PY/DS/0.1	159.60	BD/1/20	159.40	160.27	18727	0.86	0.21	
		- medium grey, softish, strongly calcareous, thin to medium bedded limestone in ≤ 50% interbedded white to light grey chert in lower 1.0m. Upper non-chert section lightly calcite veined, random ± TCA.										160.80	BD/1/20	160.27	161.13	18728	0.87	0.14	
												161.86	BD/1/75	161.13	162.03	18729	0.77	0.07	
												162.03	LC/0/40						
		lower contact silicified + graphitic @ 40° TCA.																	
		Trace pyrite as disseminations and as coatings on stylolitic fractures.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

DDH 95VG137

Date: JULY 8 95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
162.03	168.15		DOSB	3A	BX	CR	VN		28	26	PY/BM/1	163.55	FR/0/25	162.03	163.15	18730	1.12	1.68	
* WOULD LOG AS LMSB IF CODE EXISTED			-very dark gray, very hard, strongly silicified, strongly brecciated or cracked limestone (logged as DOSB because no LMSB code). Unit contains minor chert, white to light grey. Strong calcite veining as cavity matrix and randomly oriented veinlets. Breccia matrix is dark grey and siliceous, with fine dark grey sulphide. Sulphide content 1-2% overall, ± 5-7% of face of section. Core is extremely competent. Lower contact sharp @ 60° TCA	164.15	FR/0/65	163.15	164.15	18731	1.02	0.51	
												165.15	FR/0/60	164.15	165.15	18732	0.93	0.21	
												167.02	FR/0/65	165.15	166.15	18733	0.98	0.48	
												168.15	LC/0/60	166.15	167.15	18734	0.93	0.27	
														167.15	168.15	18735	1.02	0.31	
168.15	173.87		MFCA	TA	MS	SH	GO	VN	24	18	PY/DS/0.1	168.80	FR/0/50	168.15	169.15	18736	0.98	TR	
			-greenish grey to medium gray, massive, medium to coarse grained, moderately bleached, weakly calcareous mafic volcanics. Four discrete gouge shear zones, 5-20cm each with this unit @ ±60° TCA. Minor erratic calcite veining. Trace disseminated pyrite	170.15	FR/0/70	169.15	170.15	18737	0.93	0.03	
												170.45	SH/1/50	170.15	171.15	18738	0.95	0.07	
												173.15	FR/0/70	171.15	172.15	18739	0.96	0.0	
												173.87	LC/0/30	172.15	173.15	18740	0.94	0.0	
														173.15	173.87	18741	0.69	0.3	

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NORTH AMERICAN METALS CORP Logged by: APH DDH G95UG137

LITHOLOGY LOGGING SHEET

Date: JULY 8 1995 PAGE 12 OF ____

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
173.87	177.07		LMST	9A	MS				14	14	PY/CO/0.1	174.00	FR/0/40	173.87	174.87	18742	1.02	0.07	
		- pale grey and white, mottle textured, massive,										174.87	SH/1/60	174.87	175.87	18743	0.98	0.14	
		strongly calcareous limestone. Contains										176.60	FR/0/40	175.87	177.07	18744	1.00	0.07	
		stylolite fractures w coating of fine dark																	
		sulphides are every 5-35 cm. 7cm of grey																	
		gouge @ 179.82 m. Lower contact irregular.																	
177.07	182.93	FZ	GOUG	5A	GO	SH			28	22	PY/60/1			177.07	178.07	18745	0.87	TR	
FOOTWALL FAULT ZONE		=> medium to dark grey, sandy clay gouge, non-										179.5	SH/3/55	178.07	179.07	18746	1.08	0.07	
		calcareous. Contains ~ 50% by volume										182.07	SH/3/50	179.07	180.07	18747	1.00	0.17	
		sheared and milled rock fragments from 0.5cm												180.07	181.07	18748	0.99	0.10	
		pebbles to 30-40cm blocks. Main rock												181.07	182.07	18749	0.98	0.34	
		lithology is MFCA, reddish green to medium gray												182.07	182.93	18750	0.97	0.0	
		in color, followed by white to light grey																	
		limestone as from 177.87-177.07. Shear																	
		fabric is locally visible from 45-55° TCA.																	
		Gouge contains ~1% very fine disseminated																	
		pyrite.																	
182.93	187.33		MFCA	RT	MS	SH	GO		26	18	PY/DS/0.1	184.10	FR/0/60	182.93	183.93	18751	0.98	0.0	
		- reddish tan to light red massive, coarse										185.80	FR/0/70	183.93	184.93	18752	0.97	0.07	
		grained, fairly strongly bleached + altered										187.00	FR/0/60	184.93	185.93	18753	0.92	0.0	
		mafic tuffs. Strongly sheared + gouge from																	
		184.20-184.60. Rough dark vein, trace																	
		disseminated pyrite along fractures.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: APH

Date: JULY 9/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
187.33	192.62		SLST	3A	BD	PH	VN		18	16	PY/DS/0.1 / HE/CO/0.1	188.50	FR/0/60						
		-medium to darkish grey, thin bedded, fairly										189.50	FR/0/20						
		soft, noncalcareous siltstone. Bedding is										191.90	FR/0/60						
		contorted, bedding surfaces + fract surfaces																	
		are phyllitic. Unit is weakly to moderately																	
		qtz-carbonate veined @ random ∢ TCA. Trace																	
		dissem py, minor hematite on fracture.																	
		60cm tan MFCA @ base of section. Core																	
		moderately to strongly broken.																	
192.62	193.40		DOXB	4A	BX	60.			28	26	PY/BM/1	192.92	FR/0/65	192.62	193.40	18754	0.65	0.03	
		-medium to darkish grey, thoroughly																	
		brecciated, quite hard, non-calcareous, silicified																	
		dolomite. Very similar to 166.15-168.15m.																	
		Must be a faulted block. Contains minor grey																	
		chert. Dark grey sulphides occur as breccia																	
		matrix @ 1-2%. Minor shearing in gouge																	
		@ 192.90 + 193.40. Upper + lower contacts																	
		obscured.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: ADH

Date: JULY 9/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
193.40	205.12		MAFAS	SG	MS	VN			O	O	PY/DS/10.1								
			medium green, massive, very weakly bedded mafic ash tuffs. Incipient foliation @ 30°CA. weakly to moderately qtz-carbonate veined at random ± TCA, 1-3mm one every 5-35cm. Trace disseminated pyrite.																
205.12	205.12		EOH																

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 8, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S
18701	UG 137	.10				
2		.41				
3		.14				
4		.24				
5		.41				
6		.34				
7		1.71				
8		.34				
9		.10				
710		.21				
1		.17				
2		.17				
18713		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: July 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
18714	UG 137	.03				
5		.07				
6		.14				
7		2.43				
8		3.12		6.0		1.0
9		.79				
720		.82				
1		1.27				
2		.31				
3		.38				
4		.62				
5		.34				
6		.07				
7		.21				
8		.14				
9		.07				
730		1.68				
1		.51				
2		.21				
3		.48				
4		.27				
18735		.31				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: _____

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
18736	UG 137	TR				
7		.03				
8		.07				
9		TR				
740		TR				
1		.03				
2		.07				
3		.14				
4		.07				
5		TR				
6		.07				
7		.17				
8		.10				
9		.34				
750		TR				
1		TR				
2		.07				
3		TR				
18754		.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G95UG138 PROJECT AREA: GRIZZLY SECTION: 23850N

DRILL HOLE LOCATION DATA

EASTING: 25049.78
NORTHING: 23856.94
ELEVATION: 969.86
HOLE LENGTH (M): 207.86 m

DRILL DIARY

STARTING DATE: 09/07/95 (DD/MM/YYYY)
COMPLETION DATE: 14/07/95 (DD/MM/YYYY)
LOGGED BY: JFB RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: BP EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	270.849	-77.525	SURVEY
1	76.20	276.5°	-79.8°	SPERRY
2	137.15	280.5°	-78.2°	SPERRY
3	207.86	283.5°	-76.9°	SPERRY
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	1.22	TRIC		185.62	187.12	HLBX	
1.22	3.71	MFCA		187.12	191.25	GOUG	
3.71	4.86	BSOY		191.25	191.70	LMSL	
4.86	31.70	MFCA		191.70	201.65	MFCA	
31.70	36.30	MFLP		201.65	203.03	DOLO	
36.30	64.96	MFCA		203.03	206.01	GOUG	
64.96	66.95	ARGI		206.01	207.86	MFCA	
66.95	95.48	MFCA					
95.48	98.48	VNQZ					
98.48	134.05	MFCA					
134.05	142.02	MFLP					
142.02	144.81	MFCA					
144.81	148.36	MFLP					
148.36	152.91	MFCA					
152.91	154.24	ARGI					
154.24	156.83	LMBX					
156.83	163.77	LMCH					
163.77	168.86	LMSL					
168.86	174.96	LMIBX					
174.96	176.84	CHSB					
176.84	176.73	LMSL					
176.73	185.62	DOXB					

COMMENTS:
Plugs were placed @ 150' and 500'.

CHECK LIST | ASSAY REPORT | CORE PHOTOS

549' #20 @ 180 lbs.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: J F B

Date: July 12, 1995

DDH G 95 UG 138

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	1.22		TRIC																
1.22	3.71		MFCA	7T	BD				12	24	PY/DS/1 | FU/BN/.1	2.11	BD/0/65						
			Original rock is fine MFAS; 1 10 cm patch of clast supported, re-healed, angular brxx noted; 1% thin Q/C stringers.									2.38	FR/0/70						
3.71	4.86		BSDY	1N	PP	AM			0	0		3.71	VC/0/30						
			Approx. 10% pyroxene phenos throughout; Upp' contact is sharp; Baked margins extend into the MFCA above & below this dyke; Rock is pervasively carbonatized.																
4.86	9.43		MFCA	7T	BD				12	24	PY/DS/.5 | HE/VN/.1	5.46	SH/1/65						
			Original rock is fine MFAS; Rare thin shears; up to 1% thin Q/C stringers; minor sericite coating on fracs.									6.67	BD/0/75						
												6.84	FR/0/75						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 12, 1995

DDH 695 V6 138

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
9.43	12.49		MFCA	RT	BD				0	22	PY/DS/1 // HE/PV>VN/10 // FU/EU/5	10.61	FR/0/70						
		Dark red (pervasive hem) to greenish-tan, very xl rich										10.98	FR/0/40						
		bedded tuff ± local minor MFAS interbands; 2% thin q/c										11.47	BD/1/70						
		stringers; Approx 10% of xl's are altᵉᵈ to green ser.																	
12.49	31.70		MFCA	TG	BD				0	24	PY/DS/1 // HE/VN/1 // FU/SP/1	14.90	BD/1/60						
		Essentially the same as 4.86-9.43 m; light tan to grey;										15.92	FR/0/75						
		minor loc xl rich portions.										21.80	FR/0/55						
												22.64	BD/0/70						
												31.24	FR/0/30						
31.70	36.30		MFLP	4G	BD				0	14	PY/DS/1.5 // HE/VN/2	34.26	FR/0/70						
		variable darkish green to lightish green ± loc light tan inter-										34.52	QV/2/80						
		bands of MFCA; 1% thin carb. stringers.										34.88	BD/0/80						
36.30	64.96		MFCA	7T	BD				0	24	PY/DS/.5 // HE/PV>VN/2 // FU/SP/.1	37.24	BD/0/80	50.49	51.49	19336	1.00	0.14	
		Same as 4.86-9.43 m; local patches of pervasive hem;										48.46	FR/0/80						
		50.49-52.10: 5% py, mainly along fracˢ but also dissᵉᵈ										62.15	BD/0/80						
		54.41-55.00: Highly fracᵉᵈ core.										62.38	FR/0/60						
		56.15-56.28: Re-healed, subangular clast & matrix																	
		supported brxx ± 2% dissᵉᵈ py @ 65° tcg.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: J F B

Date: July 13, 1995

DDH 695UG138

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
64.96	66.95		ARGI	1A	BD				0	0	PY/BD>VN/5	66.66	BD/0/75						
		Fine bedded ARGI w 2 thin interbands of MFCA; ARGI is calcareous.																	
66.95	75.62		MFCA	6T	BD				12	26	PY/PT/5 | FU/BD/1	69.42	FR/0/60						
		Basically the same as 4.86–9.43 except that: ① up to 10% py occurs as irregular patches, along frac's & diss'd; ② Thin q/c stringers are rare. 75.20–75.62: Black ARGI interband (calcareous).										69.74	BD/0/70						
												73.60	SH/1/75						
75.62	89.86		MFCA	7T	BD				12	24	PY/DS/1 | FU/BN/.1 | HE/VN/.1	80.67	BD/0/60						
		Basically the same as 4.86–9.43; Qtz or Q/c stringers are rare; 2 short intervals of calcareous ARGI noted.										83.17	FR/0/65						
												85.23	BD/0/40						
89.86	95.48		MFCA	6A	BD	BN			0	26	PY/PT/2 | FU/BN/2 | HE/VN/.1	93.80	BD/0/50						
		Variable tan to grey to dark green to bright green; micro folds occur locally; Original rock is MFAS & MFLP; Rare thin shears; The various colour bands result from the following: tan = carbonatized MFCA / grey = pyritic MFCA / dark green = fresh, chloritic MFLP / light green = MFCA + lots of bright										95.29	QV/3/70						

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 17, 1995

DDH 695 UG 138

PAGE 4 OF 11

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
95.48	98.48		VNQZ	8W	MS				0	0		95.48	VC/0/65	95.48	95.91	19337	0.39	0.14	
			milky white massive qtz ~ occasional small (1 cm) inclusions											95.91	96.51	19338	0.23	0.27	
			of MFCM.											96.51	97.51	19339	0.90	0.38	
			95.70: small pebbles → ground core of tan MFCM (origin unknown).											97.51	98.48	19340	0.56	0.62	
			95.91-96.26: Tan MFCM ground core.																
			96.26-96.51: grey MFCM ~ 15% blobs of py.																
98.48	128.13		MFCM	AN	BD				14	26	PY/PT/2 | FU/BN/.1	103.48	BD/1/40	98.48	99.48	19341	1.00	0.72	
			Interbanded medium grey MFCM (80%) & black calcareous									106.42	SH/3/35						
			HR61 (20%); The MFCM was originally MFMS & MFLP; Local bands									123.19	FR/0/45						
			of mod-int sil" (10% overall); Occasionaly irregular nodules									125.51	BD/1/60						
			of white qtz; Talc/sericite locally exists on fracs; Local																
			thin shears; Minor loc small bands of re-healed, matrix																
			supported sub-rounded brxx; Micro folds commonly noted;																
			2-5% py occurs as patches, disseminations & along fracs.																
128.13	134.05		MFCM	ZA	BO	BN	BX	CR	14	26	PY/PT/5 | HE/PT/.1	130.94	FR/0/80	128.13	129.13	19342	0.93	2.30	
			Pyritic MFCM which was originally MFLP; Py occurs as									131.18	FR/0/50	129.13	130.13	19343	0.90	0.89	
			patches, along fracs & as disseminations; Occasional									131.20	BD/1/50	130.13	131.13	19344	0.96	0.75	
			short interals of re-healed, sub-rounded, matrix											131.13	132.13	19345	1.00	1.10	
			supported brxx (10% overall) and also short intervals											132.13	133.13	19346	0.94	0.55	
			of re-healed crackle (10% overall).											133.13	134.05	19347	0.82	0.24	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 15, 1995

DDH 695U6138

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														162.83	163.77	19367	0.94	.89	
											PY has 2 forms: ① diss^{ed}, m.g.^{ed} & brassy (0.1%) / extremely f.g.^{ed}, grey on frac^{s} (0.5%).								
163.77	168.86		LMSL	1N	BD	SK	BX		14	28	PY/VN/.5	166.90	FR/0/50	163.77	164.77	19368	0.94	9.02	.89
											Black fine bedded LMSL ± loc irregular patches of whitish DOLO; 163.77-167.09: 98% black LMSL / 2% DOLO.			164.77	165.77	19369	0.92	.55	
											167.09-168.86: 75% DOLO / 25% black LMSL.			165.77	166.77	19370	0.88	.21	
											most core is strongly sil^{ed}; Rare thin shears.			166.77	167.77	19371	0.88	.27	
											163.91-164.10: matrix supported, re-healed sub-rounded brxx ±			167.77	168.86	19372	0.55	.17	
											a black matrix; locally up to 5% thin carbonate (DOLO/ankerite) stockwork; Py occurs as: ① m.g.^{ed} diss^{ed}, brassy (0.1%) ② extremely f.g.^{ed}, grey on frac^{s} (0.5%).								
168.86	174.96		LMBX	1N	BX	BD	VG		28	28	PY/VN/1	174.92	SH/3/70	168.86	170.38	19408	0.31	3.05	0.65
											80% matrix supported re-healed sub-rounded brxx ± mainly small black LMSL clasts & lesser whitish DOLO clasts; loc			170.38	171.15	19409	0.77	2.74	
											minor shears; Py is as follows: ① m.g.^{ed}, brassy & diss^{ed},			171.15	171.91	19410	0.78	3.98	0.99
											② extremely f.g.^{ed}, grey on frac^{s}.			171.91	173.43	19411	0.35	1.68	
											170.38-170.46: Highly ground core (½ cm pebbles).			173.43	174.96	19412	0.08	8.06	2.72

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 16, 1995

DDH 695 U6 138

PAGE 8 OF 11

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
174.96	176.48		CHSB	SA	CR	BX	VG		26	O	PY/UN/.5	170.04	FR/O/20	174.96	175.72	19373	0.50	12.93	0.78
		80% re-healed crackle, 20% clast supported, angular re-healed												175.72	176.48	19374	0.54	17.28	0.88
		brxx; Py has 2 forms: ① diss^{ed}, brassy & m.g.^{ed} (0.1%);																	
		② ext. f.g.^{ed}, grey & on fracs (0.5%).																	
		175.17: 6 cm frag = 30% ext. f.g.^{ed} grey py; The																	
		frag is angular brxx & crackle (re-healed) & the py is pervasive																	
		within brxx or crackle frags.																	
176.48	176.73		LMSL	3N	FR				29	29				176.48	176.73	19375	0.18	2.67	
		F.g.^{ed} ground sand (1/4 - 1 mm grains); 80% black																	
SAND		sil^{ed} sand & 20% whitish-grey sil^{ed} sand (non of																	
		which is calcareous).																	
176.73	185.62		DOXB	3A	BX	CR	SH	VG	28	26		183.96	SH/3/40	176.73	177.73	19376	1.00	9.50	0.41
		Rock types are as follows: 80% red to dark grey DOXB,										184.05	SH/1/50	177.73	178.73	19377	0.90	2.64	
		20% black sil^{ed} LMSL*; The DOXB is locally sil^{ed};												178.73	179.73	19378	0.98	4.01	0.33
		Rock texture is as follows: 70% re-healed angular matrix												179.73	180.73	19379	0.92	6.62	0.41
		supported brxx, 20% re-healed crackle, 10% sheared												180.73	181.04	19380	0.29	7.54	0.45
		& brx^{ed} (non-re-healed) rock; The above textures are												181.04	182.57	19381	0.65	16.80	0.92

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* 1 small frag of MFCM noted.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 16, 1995

DDH 695 U6 138

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														182.57	184.10	19382	0.67	13.82	2.3
											noted in both the DOXB & LMSL; within the brxx's, frag's			184.10	185.62	19383	1.20	4.80	0.76
											are either DOXB or LMSL & rarely both together; matrix								
											material varies from med grey carbonate to black non-calcareous								
											material; Py has 2 forms: ① diss'd, m.g.ed, brassy (0.4%) ② ext.								
											f.g.ed grey on frac's & locally pervasively in brxx clasts (see diagram).								
185.62	187.12		HLBX	NT	BX	SH			29	24	PY/BM/2			185.62	186.37	19384	0.30	5.59	0.74
											Partially re-healed, locally sheared sub-angular clast to			186.37	187.12	19385	0.30	.75	
											matrix supported brxx w clasts of med. grey DOLO, tan								
											MFCM, black sil'ed LMSL & brassy py; Brxx matrix is								
											either black, non-calcareous or med. grey DOLO; Py occurs as								
											follows: ① brassy brxx clasts (0.1%) ② brassy m.g.ed to c.g.ed								
											& diss'd in clasts + matrix (.2%) ③ ext. f.g.ed grey in the								
											brxx matrix & lesser on frac's (2%).								
187.12	191.25		6QUG	4A	SH	BD			28	26	PY/VN/2 // HE/ST/0.5			187.12	188.12	19386	0.48	0.24	
											Rock type is mainly MFCM w occasional rip up clasts of			188.12	189.12	19387	0.49	0.14	
											sil'ed DOLO; The MFCM is locally intensely sil'ed; 75% of			189.12	190.12	19388	0.49	0.17	
											core is sheared; occasional thin carb stringers; Py has 2			190.12	191.25	19389	0.70	0.17	
											forms: ① brassy, diss'd & on frac's (1%), ② extremely f.g.ed								
											grey on frac's (1%).								



190.20 – : core ground to fine sand.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 11, 1995

DDH 695 06 138

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
191.25	191.70		LMSL	3N	CR				24	29	PY/VN>DS/.5			191.25	191.70	19390	0.36	0.14	
		Totally sil'ed; white-grey carbonate (dolo/ankerite) fills																	
		crackle spaces; py is brassy; On one frac, "bronzy"																	
		non-magnetic (pentlandite ?) noted.																	
191.70	201.65		MFCA	SA	SH	CR	BD		28	24	PY/VN>DS/1	199.52	BO/0/40	191.70	192.70	19391	0.90	.24	
		Core is moderately sheared throughout; py is brassy (on												192.70	193.70	19392	0.77	.14	
		frac's + diss'ed); shear orientations are random.												193.70	194.70	19393	0.98	.10	
		197.82 - 197.87: Ground up fine sand.												194.70	195.70	19394	0.94	.07	
														195.70	196.70	19395	0.94	.07	
														196.70	197.70	19396	1.02	.10	
														197.70	198.70	19397	1.00	TR	
														198.70	199.70	19398	1.00	.27	
														199.70	200.70	19399	1.00	.31	
														200.70	201.65	19400	0.85	.21	
201.65	203.03		DOLO	7W	CR	BX	SH		24	18	PY/VN/.1	202.11	SH/4/65	201.65	202.34	19401	0.65	.27	
		Totally crackled w/ local shearing.												202.34	203.03	19402	0.60	.10	
		202.05 - 202.28: wedge of sheared MFCA @ 65° tca.																	
		Local partially re-healed sub-rounded clast supported brxx. (20% overall).																	
		Py is brassy.																	
203.03	206.01		GOUG	AT	SH	BX			29	24	PY/DS/.1 HE/BN/2	204.95	SH/3/55	203.03	204.03	19403	0.89	.10	
		Rock type is med grey to tan MFCA w/ loc red hem										205.58	SH/1/50	204.03	205.03	19404	1.06	.07	
		bands & blackish graphitic shears; Brxx frag's of MFCA										205.66	SH/1/40	205.03	206.01	19405	1.00	.07	
		caught up in the shears are sub-rounded; No re-healing; locally,																	
		MFCA frag's are bleached & weakly sil'ed.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 16, 1995

DDH 69506 138

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
206.01	207.86		MFCM	RA	SH	BX	MS		28	22	PY/DS/PP HE/RN/20 FU/SI/PP	206.77	SH/2/50	206.01	206.94	19906	0.95	.48	
		75% re-healed melange→shear & brxx zone ∫ subrounded										206.98	SH/2/40	206.94	207.86	19907	0.76	1.03	
		elongated frags & black graphitic to red hematitic matrix;																	
		Colour is variable bands from dark red to light tan or grey																	
		to light black; up to 5% carb stringers & veinlets, some of which are																	
		sheared & elmgated; 206.01-206.15: whitish DOLO.																	
		EOH = 207.86 m																	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 15, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %
19336	UG 138	.14			
7		.14			
8		.27			
9		.38			
340		.62			
1		.72			
2		2.30			
3		.89			
4		.75			
5		1.60			
6		.55			
7		.24			
8		.41			
9		1.68			
350		.24			
1		1.06			
19352		.45			

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 17, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19353	UG 138	.89				
4		.72				
5		.82				
6		.38				
7		.79				
8		2.43		3.6		.45
9		4.73		1.1		.80
360		3.02		2.1		.52
1		3.70		1.0		.67
2		1.85		1.2		.68
3		3.36		1.0		.41
4		3.98		2.9		.43
5		3.70		2.2		.32
6		.75				
7		.89				
8		9.02		1.2		.89
9		.55				
370		.21				
1		.27				
2		.17				
3		12.93		.13		.78
4		17.28		.23		.88
5		2.67				
19376		9.50		2.2		.41

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 17, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
19377	UG 138	2.64				
8		4.01		5.2		.33
9		6.62		6.0		.41
380		7.54		6.8		.45
1		16.80		3.2		.92
2		13.82		2.0		2.3
19383		4.80		1.1		.76

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 17, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
19384	UG 138	5.59		1.8		.74
5		.75				
6		.24				
7		.14				
8		.17				
9		.17				
19390		.14				
19408		3.05		2.6		.65
9		2.74				
10		3.98		.6		.99
1		1.68				
19412		8.06		.9		2.72

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 18, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19391	UG 138	.24				
2		.14				
3		.10				
4		.07				
5		.07				
6		.10				
7		TR				
8		.27				
9		.31				
19400		.21				
1		.27				
2		.10				
3		.10				
4		.07				
5		.07				
6		.48				
19407	E.O.H.	1.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # 95U6 139 PROJECT AREA: GRIZZLY SECTION: 24000 N

DRILL HOLE LOCATION DATA

EASTING: 25079.78
NORTHING: 23980.087
ELEVATION: 955.657
HOLE LENGTH (M): 197.20 m

DRILL DIARY

STARTING DATE: 14/07/95 (DD/MM/YYYY)
COMPLETION DATE: 22/07/95 (DD/MM/YYYY)
LOGGED BY: JFB RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: BP EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE	
COLLAR	0.00	278.722	-34.543	SURVEY	
1 (217')	66.14	287.0° (280°)	-31.9°	SPERRY	*azimuth is fudged in computer.
2 (420')	128.01	288.0° (280°)	-31.7°	SPERRY	
3	197.2	280°	-31.0°	ACIO	
4					
5					

PURPOSE: GRIZZLY ZONE DEFINITION

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS
0.00	31.19	MFCA	basalt dyke (13.83) 6 cm wide. varies from MFCA, MFFL, and MFLP.
31.19	32.61	BSDY	Px phenos, carbonatized
32.61	121.53	MFCA/ ARGI	alternating beds of MFCA and ARGI w chrt beds. up to 5% PY within MFCA and ARGI
121.53	122.92	DOLO/ DOCH	light/med grey dolomite w cherty areas
122.92	123.77	HLBX	clasts: dolo+chrt; grey and brassy py; matrix supported; subangular clasts
123.77	153.17	DOCH/ DOLO	within DOCH small areas of brecciation w grey/brassy py. as cont downsection gets darker and py content increases. py mainly DS
153.17	157.48	DOLO	altered dolomite w areas that are groundmass of silt & sand particles GOUG *possible fault boundary.
157.48	171.45	DOCH	small area brecciation dolomite v. carbonatized some DS pyrite
171.45	173.84	DOXB	Three distint zones of brecciation w alternating areas of chrty dolomite matrix fine grained
173.84	180.39	LMBX	coarse grained matrix clasts angular & py is both grey + brassy DS.
180.39	184.20	HLBX	3 clast types: silified LS, LS, calcite in fine grained matrix; brassy/grey py
184.20	185.19	LMST	interbedded LMST/MFCA fractured + banded
185.19	197.2	MFCA/ ARGI	alternating MFCA/ARGI w hematite staining fractured + altered
	EOH		

COMMENTS:
At 503': water @ 200 psi & approx. 400 gal/min.
A plug was placed at 70', then grouting from 70' to EOH.

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 16, 1995

DDH 695V6 139

PAGE 1 OF 10

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	5.74		MFFL	2G	PP				0	0	PY/DS/PP / HE/PT>VN/.1								
		Fresh green fsp porphyritic andesite w epidote on fracs; very calcareous; Occasional thin carb. stringers.																	
5.74	15.08		MFCH	4G	BN	MS			12	24	PY/DS>PT/.5 / HE/VN/.1	10.21	SH/0/60						
		Colour from med grey to greenish-grey; Original rock = MFLP, much of which is fsp rich & MFMS; local thin shears; Occassional thin carb. stringers. 13.83: Black basalt dykelet (6 cm wide) @ 50° tca.																	
15.08	22.62		MFLP	2G	BD	BN			0	0	PY/DS/.5 / HE/VN/.1	15.12	SH/3/70						
		Fresh, chloritic & generally fsp xl rich; Epidote locally on fracs; Minor thin carb. stringers.										20.80	BD/1/40						
22.62	25.62		MFCH	8A	BD				0	24	PY/BD>DS/1 / FU/SP/.1	25.62	BD/0/40	24.62	25.62	19413	.038	.17	
		Light grey to light green; Original rock = MFLP; Most core mod ly sil'ed; Rare thin shears.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 16, 1995

DDH 95U6179

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
25.62	31.19		MFCA	AN	BD				0	26	PY/DS/2 FV/BD/.1	30.69	BD/0/45						
		Interbedded med gray MFCA (75%) & black ARG1 (25%); both rock types are variably mod'ly sil'ed along bands; occasional thin Q/c stringers; small micro folds noted.										30.70	FR/0/45						
31.19	32.61		BSDY	1N	PP	MM			0	0		31.19	UC/0/35						
		Small black pyroxene phenos throughout; Rock is pervasively carbonetized; Loc. tiny carbonate filled amygdules.																	
32.61	44.80		MFCA	AN	BD	BX			14	22	PY/DS/1 HE/VN/-1 FV/BN/.1	35.50	RD/0/60						
		60% bedded med gray MFCA (originally MFAS); 30% black ARG1, 10% black mudstone (@ top of interval); 10% patches of re-healed, matrix & clast supported angular brxx; loc thin shears; Rare patches of weak sil'n; sericite rare on fracs. 43.28–44.80 : ground core.										35.56	FR/0/70						
44.80	45.72		LOST																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: J F B

Date: July 17, 1995

DDH 695UG139

PAGE 3 OF 10

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
45.72	50.69		ARG1	2N	BD	BN			0	0	PY/DS/.5	48.13	BD/0/40						
		90% black ARG1 w/ 10% interbands of dark grey quartzite;																	
		1 small sliver of MFCA (originally MFEP?) noted;																	
		occasional q/c stringers.																	
50.69	53.49		MFCA	6A	BD				0	24	PY/DS/1 / HE/VN/.1 FU/BN/.1	52.09	BD/2/45						
		Original rock = MFAS; Locally x/l rich w/ fsp x/s mostly																	
		a/t^{ed} to apple green sericite.																	
		52.42 - 52.56: ground core.																	
53.49	54.71		MFFL	26	PP				0	0	PY/DS/1 HE/VN/.5								
		Fresh, chloritic, fsp porphyritic; Pervasively carbonatized;																	
		Minor thin carb. stringers.																	
54.71	63.51		MFCA	7A	BD				12	24	PY/DS/2 / HE/PT>VN/.5 FU/BN/.1	56.60	FR/0/45	57.70	58.18	19414	0.49	.10	
		Original rock = MFAS, locally x/l rich; occasional thin										57.26	BD/1/45						
		carb stringers; Local thin shears.																	
		57.70 - 58.18: Very vuggy portion																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 18, 1995

DDH 695U6139

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
67.51	71.74		MFCA	AG	BN				0	12	PY/DS/.1 // HE/DS>VN/.5	67.84	FR/0/25						
		Original rock is xl rich tuff; colour generally medium										69.52	FR/0/40						
		greyish-green w dark green chloritic sub-intervals; occasional										69.68	FR/0/65						
		thin carb stringers; Mn occurs as: ① Fresh black diss^{ed} xl^{s},																	
		② Red staining along frac^{s}.																	
71.74	75.69		MFCA	AW	BN				12	24	PY/DS/2 // FU/BN/.1			71.74	72.74	19415	0.72	.14	
		medium tan to grey MFCA w 30-40% thin bands of white DOLO;												72.74	73.74	19416	0.74	.07	
		These white bands appear to have originally been stringers which												73.74	74.74	19417	0.70	.07	
		have been strained & stretched out; micro folds common;												74.74	75.69	19418	0.68	.07	
		Local thin shears.																	
75.69	88.57		ARGI	IN	BD				0	22	PY/PT>DS/.5 // FU/BN/.1								
		Black ARGI (80%), interbedded w tan MFCA (15%), & locally																	
		thin CHRT beds (5%); Rare thin shears; occasional thin																	
		carb. stringers; Microfolds common; Bedding & frac																	
		directions are random due to folding; Sericite occurs rarely																	
		on frac faces.																	
88.57	104.38		MFCA	SA	BD				0	24	PY/UNIDS/.5 // FU/BN/.1	90.37	FR/0/40	101.32	101.68	19419	0.36	.07	
		Very similar to 75.69-88.57 except that rock proportions										90.43	BD/1/40						
		are 80% medium grey MFCA, 20% black ARGI, 0% CHRT.										97.61	FR/0/65						
		101.32 - 101.68: 10% patches of f.g.^{ed} py.										97.88	BD/0/40						

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 18, 1995

DDH 695U6139

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
104.38	114.44		ARGI	NA	BD				0	22	PY/DS/.01 / HE/VN/PP	112.59	FR/0/75						
		Very similar to 75.69 - 88.57 except that rock proportions										112.66	BD/1/80						
		are: 60% black ARGI, 39% medium grey MFCM, 1%																	
		whitish CHRT.																	
114.44	118.98		MFCA	5A	BD				0	24	PY/DS/5 / HE/VN/.1	117.73	QV/2/50	117.9	118.98	19420	1.14	.24	
		med grey - green grey, volcanics increase in colour in										118.31	FR/0/75						
		increased amt of py. from 114.44 - 117.94 ~ 5% py and																	
		from 117.94 - 118.98 ~ 25% py. Both ds py and py																	
		in veins, from coating fractures																	
		carbonate stringers																	
118.98	121.53		ARGI	NA	BD				12	22	PY/DS/5	119.26	BD/1/50	118.98	121.53	19421	2.52	.86	
		banded ARGI black 60%, MFCA grey-green 30%, CHRT whitish																	
		2%, DS PY 8%																	
		argillite graphitic																	
121.53	122.21		DOLO	GA	CR				14	22		121.53	UC/0/70	121.53	122.21	19422	0.75	.31	
		-black silified limestone at 121.53 ~ 5cm long										121.67	FR/0/65						
		-some chert within the dolomite																	
		light to med grey dolomite																	
		conformable contact betwn argi/MFCA + DOLO																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

DDH _____

Date: July 19/95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
122.21	122.92		DOCH	NA	CR				.0	26		122.19	UC/0/20	122.21	122.92	19423	0.71	.07	
		Conformable contact betwn DOLO and DOCH										122.41	FR/0/60						
		carbonate stringers																	
		large cherty black areas																	
122.92	123.77		HLBX	NA	BX	CR	VG	FR	16	26	PY/DS/5			122.92	123.77	19424	0.88	.21	
		2 types of clasts: dolomite + chert, matrix supported,																	
		w subangular clasts; med-dark grey-black																	
		V. fine grained grey py and brassy DS py																	
		highly fractured and broken up																	
123.77	139.05		DOCH	7A	CR	FR			12	24	PY/DS/1.5	124.27	FR/0/65	123.77	124.77	19425	1.20	.07	
		light grey dolomite w cherty intervals										132.25	FR/0/70	124.77	125.77	19426	0.86	.27	
		~10cm length of brecciation; clast supported, clasts rotated, and										133.46	FR/0/70	125.77	126.77	19427	1.00	.14	
		subrounded; area healed at 124.57												126.77	127.77	19428	1.05	.07	
		as continue down the amt of chert begins to												127.77	128.77	19429	0.82	.14	
		decrease and the colour gets lighter												128.77	129.77	19430	1.07	.07	
														129.77	130.77	19431	1.01	.14	
		within the lighter area large chert piece found												130.77	131.77	19432	1.04	.07	
		minor carbonate stringers												131.77	132.77	19433	1.15	.10	
		as get closer to boundary begins to grade into												132.77	133.77	19434	1.09	.14	
		lighter dolomite												133.77	134.77	19435	0.86	.21	
		in two places there are very small areas of												134.77	135.77	19436	0.97	.10	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 19/95

DDH _____

PAGE 7 OF 10

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
		brecciation which are matrix supported, clasts are subrounded.											
		From about 124.77 to 127.15 the rocks are quite broken and fractured.											
139.15	149.15		DOLO	7A	CR	FR			0	22	. . 1	146.66	FR/0/70
		light white grey colour; moderately silified minor carb stringers										151.60	FR/0/60
		As increase downsection it becomes more fractured											
149.15	153.17		DOCH	3A	CR	FR			0	24	PY/DS/S1		
		darker dolomite due to an increase in chert and pyrite. The py is DS and brassy, some grey py can also be seen; less py follows the veinstwin DS moderately silified											

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
135.77	136.77	19437	0.99	.31	
136.77	137.77	19438	0.99	.17	
137.77	139.15	19439	1.36	.07	
139.15	140.15	19440	0.96	.10	
140.15	141.15	19441	0.96	.10	
141.15	142.15	19442	1.17	.10	
142.15	143.15	19443	1.04	.07	
143.15	144.15	19444	1.01	.07	
144.15	145.15	19445	1.02	.17	
145.15	146.15	19446	0.92	1.85	
146.15	147.15	19447	1.02	.14	
147.15	148.15	19448	0.99	4.25	.05
148.15	149.15	19449	0.74	.93	
149.15	150.15	19450	1.08	.89	
150.15	151.15	19451	0.96	.14	
151.15	152.15	19452	0.93	.10	
152.15	153.17	19453	0.97	.14	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 21/95

DDH: —

PAGE 3 OF 10

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
153.17	157.48	GOUG	DOLO	Y/A	FR	CR			0	22	PY/DS/PP	154.07	FR/0/80°	153.17	154.17	19454	0.64	.07	
*possible fault boundary		fractured dolomite w some areas that are ground up masses of silt and sand. (40%) Area is heavily altered w yellow staining. Dark clay infilling fractures in dolomite. Silt, sand and clay particles in betwn small unbroken pieces of dolomite core.												154.17	155.17	19455	0.98	.07	
														155.17	156.17	19456	0.68	.72	
														156.17	157.48	19457	1.04	.45	
157.48	159.74		DOCH	AW	FR	CR			0	22		157.97	FR/0/65	157.48	158.48	19458	1.02	.27	
		white grey w several cherty areas; in one area there is some yellow and red staining/alteration												158.48	159.74	19459	1.21	.27	
159.74	171.45		DOCH	AN	CR	FR			12	24	PY/DS/1	165.1	CV/2/70°	159.74	160.74	19460	0.93	.07	
		black grey dolomite which has a high carbon content. some cherty areas and carbonate stringers										166.18	FR/0/30°	160.74	161.74	19461	0.99	.27	
												168.68	FR/0/20°	161.74	162.74	19462	1.00	.14	
		areas which are heavily carbonatized are vuggy and amygdaloidal. area is more pyritic nch then above which also accounts for the dark colour. one small area brecciation												162.74	163.74	19463	1.03	.14	
														163.74	164.74	19464	1.02	.10	
														164.74	165.74	19465	0.96	.14	
														165.74	166.74	19466	0.99	.14	
														166.74	167.74	19467	1.01	.17	
														167.74	168.74	19468	0.98	.38	
														168.74	169.74	19469	0.98	.24	
														169.74	170.74	19470	0.94	.07	
														170.74	171.45	19471	0.63	2.54	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker DDH _____

Date: July 21/95 PAGE 9 OF 10

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
171.45	173.84		DOXB	AN	BX	FR	CR		20	24	PY/DS/2	173.11	FR/0/45°	171.45	173.11	19472	1.74	20.57	1.9
		about 70% breccia and 30% cherty dolomite												173.11	173.84	19473	0.77	4.35	
		breccia areas are v. sulphized in both brassy ds py																	
		and grey py. Three distinct zones of brecciation in inter areas																	
		of dolomite. Each zone is matrix supported, clasts are																	
		subangular and rotated. Breccia (171.45 to 171.95) matrix is																	
		light grey in py throughout. Breccia (172.51 to 173.11) matrix is																	
		dark grey + more cherty and carbonaceous. Distinct boundary																	
		between brecciated and non brecciated material. Non-brecciated																	
		areas are more silified than brecciated areas, matrix is fine																	
		grained in all breccia zones.																	
173.84	180.39		LMBX	AN	BX	FR	QZ		RH	22	PY/MN>DS/1	179.78	FR/0/30°	173.84	174.84	19474	0.98	2.4	
		one distinct breccia which has a white calcite										180.18	FR/0/10°	174.84	175.84	19475	0.96	1.06	
		matrix and clasts are range of limestone and silified												175.84	176.84	19476	0.98	.93	
		limestone. Clasts are quite angular and variable in												176.84	177.84	19477	1.19	.72	
		size. Darker silified areas are crackled. brassy py is ds and												177.84	178.84	19478	0.59	.85	
		grey py follows veins. Matrix is coarse grained												176.84	180.39	19479	1.47	.55	
180.39	184.20		HLBX	AN	BX	CR	FR		24	22	PY/DS/.5			180.39	181.39	19480	0.95	1.54	
		Breccia has three clast types (silified limestone, limestone, calcit												181.39	182.39	19481	0.99	8.29	
		in a light grey fine grained matrix. clasts are subrounded,												182.39	183.39	19482	0.97	.85	
		and rotated. Breccia is matrix supported. fracturing + cracking												183.39	184.20	19483	0.87	1.13	
		is evident. Both brassy + grey pyrite is evident																	

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- contact
strained

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

DDH: _____

Date: July 21/95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
184.20	185.19	,	LMST	AW	CR	FR			0	12		184.92	BN/1/50°	184.2	185.19	19484	0.95	.10	
		interbedded limestone and MFCA from unit below. MFCA is either in bands or as clasts within the limestone. Limestone is white grey colour which is fractured and banded																	
185.19	189.48		MFCA	AT	CR	FR	BD		0	22	HE|VN|1	185.19	UC/0/70°	185.19	186.19	19485	1.0	.10	
		greytan colour MFCA w hematite staining along veins. Carbonate stringers throughout v. weakly silified in places. Contact betwn MFCA and LMST conformable and appears strained. Small section of chert w interbedded MFCA. MFCA breaks when pressed w fingers.										186.28	FR/0/50°	186.19	187.19	19486	0.84	.10	
														187.19	188.19	19487	0.86	.55	
														188.19	189.48	19488	1.0	.07	
189.48	197.2	-	ARG1	BN	FR	CR	BD		0	22	HE|VN|.1	195.64	QD/2/40°	189.48	190.55	19489	0.85	.03	
		65% ARG1, 35% MFCA; ARG1 is weakly silified and entire rock v. fractured and altered. Some areas are interbedded arg1 and MFCA in variable bands. Entire section is variable in amt. of arg1 MFCA and mixed. Veins of MFCA within ARG1. carbonate stringers												190.55	193.14	19490	2.14	.14	
														193.14	195.21	19491	1.60	.10	
EOH														195.21	197.2	19492	1.68	.07	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 21, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
19413	UG 139	.17				
4		.10				
5		.14				
6		.07				
7		.07				
8		.07				
9		.07				
420		.24				
1		.86				
19422		.31				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 22, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19423	UG 139	.07				
4		.21				
5		.07				
6		.27				
7		.14				
8		.07				
9		.14				
30		.07				
1		.14				
2		.07				
3		.10				
4		.14				
5		.21				
6		.10				
7		.31				
8		.17				
9		.07				
40		.10				
1		.10				
2		.10				
3		.07				
4		.07				
19445		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 23, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19446	UG 139	1.85				
7		.14				
8		4.25		7.3		.05
9		.93				
50		.89				
1		.14				
2		.10				
3		.14				
4		.07				
5		.07				
6		.72				
7		.45				
8		.27				
9		.27				
60		.07				
1		.27				
2		.14				
3		.14				
4		.10				
19465		.14				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 23, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19466	UG 139	.14				
7		.17				
8		.38				
9		.24				
70		.07				
1		2.54				
2		20.57		1.8		1.9
3		4.35		2.3		.8
4		2.40				
19475		1.06				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 24, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19476	UG 139	.93				
7		.72				
8		.45				
9		.55				
80		1.54				
1		4.29		2.1		.9
2		.45				
3		1.13				
4		.10				
5		.10				
6		.10				
7		.55				
8		.07				
9		.03				
90		.14				
1		.10				
19492		.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # 95UG140 PROJECT AREA: GRIZZLY SECTION: 23900 N

DRILL HOLE LOCATION DATA

EASTING: 25053.54
NORTHING: 23904.80
ELEVATION: 963.12
HOLE LENGTH (M): 201.16 m

DRILL DIARY

STARTING DATE: 15/07/95 (DD/MM/YYYY)
COMPLETION DATE: 20/07/95 (DD/MM/YYYY)
LOGGED BY: JFB RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: BP EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	274.507	-57.027	SURVEY
1 (150')	45.72	281.1° (274)	-60.8°	SPERRY
2 (350')	106.67	280.5° (276)	-62.1°	SPERRY
3 (640')	195.06	277.5°	-61.3°	SPERRY
4				
5				

Assumed Values used in (Explore)

PURPOSE: GRIZZLY ZONE DEFINITION.

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	1.52	TRIC					HE at dykes
1.52	7.41	MFCA	altered lapilli tuff	150.26	150.68	BSDY	
7.41	37.61	MFAS		150.68	156.40	CHSB	breccia, dol. to HE
37.61	42.71	MFCA	altered MFAS				matrix
42.71	48.32	MFFP		156.40	156.72	BSDY	
48.32	65.66	MFCA	altered MFAS, MFFP	156.72	158.52	CHSB	breccia, calcareous to HE
65.66	67.65	ARGI					
67.65	95.45	MFCA	ARGI interbeds lower half	158.52	165.70	DOCH	w/ BSDY dykes
				165.70	172.80	GOUG	sheared DOCH and MFCA
95.45	100.45	ARGI	w/ MFCA interbeds				
100.45	102.17	MFCA		172.80	174.66	MFCA	
102.17	106.00	DOLO		174.66	176.78	DOCH	w/ gouge zones
106.00	116.35	ARGI		176.78	179.39	GOUG	
116.35	118.26	SLST	dol. interbeds, cement	179.39	181.17	ARGI	
118.26	126.26	ARGI		181.17	201.16	MFCA	
126.26	127.40	CHRT					
127.40	144.13	DOLO	highly frac, brecciated, rubble				
144.13	146.55	DOLO	bedded, BX zones, py				
146.55	147.02	BSDY					
147.02	150.26	DOXB	brecciated dol. w/ vv. f. py, altered to				

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

@ 470' H_2O @ 2-3 gal/min.

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB

Date: July 17, 1995

DDH 695 UG 140

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	1.52		TRIC																
1.52	7.41		MFCM	TG	BD				12	24	PY/OS/1.5 // HE/PT/.1								
		med tan to grey; original rock is MFLP; loc thin shears; locally, lapilli frag's are alt'd to apple green sericite; up to 1% thin qtz or carb stringers.																	
7.41	37.61		MFMS	26	BD	BN			0	12	PY/PT/.1 // HE/VN/1	14.72	BD/1/35						
		Generally dark green & chloritic w occasional epidote bands; occasional patches of med tan to grey MFCM; loc lapilli and/or x/l rich segments; occasional slickensided frac faces; 1% thin carb. stringers; py uncommon as patches, along frac's + diss'd.										23.58	FR/0/45						
												35.88	FR/0/60						
												35.92	BD/0/55						
37.61	42.71		MFCM	AR	BD				0	24	PY/OS/.5 // HE/BD>VN/5	40.06	BD/0/70						
		light grey to darkish red; original rock = MFMS; occasional thin Q/C stringers.										40.14	FR/0/60						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: JFB / GFM

Date: July 17, 1995

DDH 695UG140

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
42.71	48.32		MFEP	36	BD				0	12	PY/DS/PP / HE/BD>VN/2								
		Generally dark green & chloritic to locally med green & grey; (MFCA) Local graded beds; ½ % thin qtz or carb stringers.																	
48.32	65.66		MFCA	8T	BD				0	24	PY/DS>VN/.5 / HE/BD>VN/.5	48.48	BD/0/65						
		Original rock = fine bedded MFAS; sericite locally on frac faces; Rare thin carb stringers.										55.52	FR/0/50						
												55.72	FR/0/12						
		near base some evidence graded bedding ⇒ original rk MFEP										55.89	BD/0/55						
65.66	67.65		ARGI	1N	BD				14	0	HE/VN/PP / PY/DS/.1 FU/VN/PP								
thin breccia		d.gy to blk arg, gen. well banded/laminated w/ distinctly brecciated zn 67.30 to 67.50, irregular pattern qtz to qtz-carb. veinlets, py. as v.f.gr. dissem. in arg., rare hematite, fuchsite in qtz veinlets.																	
67.65	84.73		MFCA	8A	BD	MS			0	24	——— / PY/DS/2	74.85	BD/0/43	68.10	69.10	20124	0.94	0.48	
		lapilli and ash tuffs, some crystal tuffs, pervasively carbonatized,										83.55	BD/0/60	71.95	72.30	20125	0.33	0.14	
		rare hairline fractures, gen. calcite-lined, v. rare										76.06	SH/0/40	72.40	73.40	20126	0.97	0.17	
		evidence gouge, abund. disseminated hematite, fuchsite especially up 5m.												75.38	76.38	20127	0.90	0.07	
		py. as dissem, as augen in qtz veinlet, fractured and												80.50	82.73	20128	2.09	0.07	
		healed, along hairline carb. veinlets, patches, to 3% of rock												82.73	84.73	20129	2.04	0.10	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 19/05

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
84.73	95.45		MFCA	5A	BN	BD	BX		14	24	PY/DS/PP								
		MFCA gen. a.a. w/ interbeds of argillite ~10% of section, more prevalent top and bottom, gen. well banded/bedded w/ occassional brecciated zones, esp. 91.35-92.15																	
		- Bx, w/ abund gauge at margins, angular																	
		frags, some only sli displaced, matrix gy-brn, abund, v.v.f. cry. py., some calcite in matrix mnr. qtz-carb. veinlets																	
95.45	100.45		ARGT	AT	SH	BX			26	0	PY/DS/0.1								
sheared, brecciated		rock types as in above unit, argillite much more abundant, highly fractured and brecciated arg 50-60%, MFCA 40-50%, mns. to banded w/ bands highly contorted, arg. gen. sheared, fractured/ brecciated, thinner vol. units, highly brecciated																	
100.45	102.17		MFCA	6A					14	24	PY/SP/2/FW/PT/1								
		highly altered, dolomite pervasive, alteration obliterates most texture, banding, where seen, contorted; zones abund. to "stockwork" hairline fractures py. as disseminations, to relatively abund along frac., some conc. along banding,																	

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NORTH AMERICAN METALS CORP Logged by: GFM DDH G95 UG 140
LITHOLOGY LOGGING SHEET
Date: July 20/95 PAGE 4 OF 14

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
100.45	102.17																		
	cont'd.	Fuchsite as relatively abund. patches, appears to conc. in some bands,										1							
		conformable contact w/ underlying dolomite, although core fractured																	
102.17	106.00		DOLO	3A	BD	MS	VG		0	0	PY/DS/PP	102.17	UC/0/50	102.17	103.17	20130	0.94	0.24	
		dolomite, v.f.-cry, MS. to bedded, mnr. evidence										102.56	BD/0/52	103.17	104.17	20131	1.02	0.31	
		fracturing as hairline, gen. discontinuous frac.												104.17	105.17	20132	0.83	0.34	
		healed w/ white dol., bedded portions becoming												105.17	106.00	20133	0.75	1.44	
		siliceous (cherty), vuggy due to leaching of																	
		dol., v.v. rare ds. py., blk arg. interbeds near base																	
106.00	116.35		ARGI	2A	BD	FO	GR	BX	12	0	PY/DS/.1	106.74	FO/0/62	106.00	107.00	20134	1.10	0.96	
		argillite, D. finely laminated, foliation developed along										109.50	FO/0/65	107.00	108.00	20135	0.91	1.58	
		bedding planes, in part graphitic, siltst to v.f.gr												108.00	109.00	20136	0.94	0.34	
		ss. beds to 0.22 m thick 109.28 to 109.50, some as												109.00	110.00	20137	0.92	0.14	
		lenses, pinch out within width of core, dolomitic												110.00	111.00	20138	0.91	1.41	
		cement and rare dolomite beds or veins, beds												111.00	112.00	20139	0.95	0.82	
														112.00	113.00	20140	0.60	0.10	
														113.00	114.00	20141	1.04	0.10	
		1mm to several cm. gen. offset w/ somewhat graded												114.00	115.00	20142	0.69	0.27	
		appearance, v.light to d.gy, probably caused												115.00	116.35	20143	0.99	0.07	
		by inc clay content, siltst/ss. inc. to base of unit																	
		cross-cutting, discontinuous pattern of																	
		qtz-carb. veinlets and irregular patches																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 21/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
			mnr. dissem. py. in qtz-carb veinlets and in siltstone, also py along irreg, cross-cut, hair line fracture																
			brecciated and healed zone 109.75 to 110.00, 110.37-111.37																
116.35	118.26		SLST	W	BD	BX	VG		O	O	PY/DS/.1 PY/VR/.1	117.61	BD/0/45	116.35	117.30	20144	1.01	0.10	
			wh. siltstone w/ dol. interbeds, dol. cement, dol. ~40% of section, ad. beds 3m to 13cm often fragmented or brecciated but completely re-healed.									118.06	BD/0/80	117.30	118.26	20145	0.91	0.07	
			(in part maybe syn-sedimentary texture as rounded silt grains fillin between fragments																
			py dissem. thru both siltst and dol. conc. along micro-fractures																
118.26	126.26		ARGI	3A	BD	GR	VN		O	O	PY/DS/.1 PY/DT/.1	121.50	BD/0/30	118.26	119.26	20146	0.90	0.03	
			argillite grading to siltstone over 1mm to 1cm beds, planar to highly contorted, gen. dolomite-rich, rare clean siltstone beds to several cm, rare qtz veins and blebs gen. // to bedding.									122.97	BD/0/32	119.26	120.26	20147	0.93	0.10	
												118.40	BD/0/87	120.26	121.26	20148	1.10	0.03	
														121.26	122.26	20149	0.98	0.03	
														122.26	123.26	20505	1.12	TR	
														123.26	124.26	20506	1.15	0.21	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
														124.26	125.26	20507	0.77	0.07	
breccia zone											125.88 to 126.59 angular frag arg to silt st., frag supported, py. dissemination's to patches esp. in matrix, rare py. specks in arg/silt st.			125.26	126.26	20508	0.95	0.10	
126.26	127.40		CHRT	3A	BD				0	0	PY/DS/1	126.80	BD/0/07	126.26	127.40	20509	1.20	0.14	
											med to v. dk gy. chert laminae, w/ variable clay content and argillite interbeds pyrite conc. along arg. partings minor cross-cutting, gen. discontinuous micro-fractures qtz-carb, some restricted to chert beds								
											continued next page								

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
127.40	144.13		DOLO	2A	FR	SIC	BD		19	22	PY/DS/.1/HE/CO/0.1		
			bedded dolomite, argillaceous to silty, chert interbeds minor, high fractured generally rubble to stock-work seen in few larger pieces veinlets qtz±cw/ rare carbonate, gen. thicker dolomite beds towards base of interval										
Rubble Zone Fractured/ Faulted													
144.13	146.55		DOLO	1A	BD	BX			12	26			
			dolomite very dark gy implying arg/carbonaceous, brecciated zones - 144.13 - 144.87, 144.98 - 145.49, 145.57 - 145.63, 146.20 - 146.35, 146.45 - 146.50 (HE) zone at 146.45 to 146.50 heterolithic, incl. frag. of basalt or tuff, abundant hematitic matrix								
brecciated zones													
			breccia zone gen. locally derived, clast-supported, where leaching of carbonate in dol. clasts, many cavities lined w/ extremely fine crystalline qtz crystals (clear), v. well bedded units sometimes highly contorted.										

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
127.40	128.92	20510	0.10	0.14	
128.92	130.44	20511	0.42	0.10	
130.44	131.97	20512	0.31	0.21	
131.97	133.49	20513	0.24	0.24	
133.49	135.02	20514	0.43	0.34	
135.02	136.54	20515	0.09	0.27	
136.54	138.07	20516	0.40	0.24	
138.07	139.59	20517	0.97	0.31	
139.59	141.12	20518	0.10	0.80	
141.12	142.64	20519	0.46	0.69	
142.64	144.13	20520	0.49	1.68	
144.13	145.13	20521	0.83	0.72	
145.13	146.13	20522	0.97	1.06	
146.13	146.55	20523	0.96	0.10	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
144.13	146.55																		
		bedded dol. "vugs" not lined w/ quartz																	
		py. as fine gr. dissem. in frags, and matrix,																	
		freq. cubic form																	
146.55	147.02		BSDY	N	AM	MS			O	O		147.02	LC/O/65	146.55	147.02	20524	0.44	0.07	
		ms. basalt w/ irregular scattered v.f. augite												/					
		phenocrysts and calcite-filled amygdules																	
		to 1.5m.																	
		contacts sharp w/ ass. hematitic alt. of wall																	
		rock																	
147.02	150.26		DXB	RU	BX	VG			26	24	HE/BM/30			147.02	148.74	20525	1.04	1.89	
		angular frag dol and silicified dol, gen. rotated,												148.74	150.26	20526	0.21	2.06	
		matrix-supported, matrix d. gy to v.d. red-brn,																	
		matrix contains clays, carbonaceous material,																	
		w/ qtz, abund. v.v. f. cry. py., hematite abund																	
		along fractures and due to alteration of																	
		py adjacent to dykes, v.v. fg cry qtz (clr.)																	
		lines "vugs" and in open fractures, fracture																	
		surfaces in matrix, v.gd. crystal form,																	
		prismatic to needle-like																	
		147.50 to 147.65 poor recovery, zone w/																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

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Date: July 22/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
			much hematitic alteration but no visible dyke, dyke material may have been lost																
150.26	150.68		BSDY	1A	AM	MS			0	0	HE/ST/10 PY/BM/5			150.26	150.68	20527	0.42	19.13	0.38
			bmygdaloidal basalt w/ thin (3cm) interval of extremely altered. DOXB, (sliver of wallrock caught in dyke), 30-40% hematite, w/ abund. (5-10%) v.f. py. as matrix to dol. frag.																
150.68	156.40		CHSB	AR	BX				26	26	HE/BM/20 PY/DS VN/0.1 1			150.68	150.90	20528	0.21	41.14	0.08
			breccia predom. chert frag. in matrix gen. v. calcareous, to some dolomitic, variably hematitic to almost ms. hem adjacent to BSDY											150.90	151.61	20529	0.30	36.17	0.09
														151.61	151.78	20530	0.17	3.53	0.26
														151.78	152.54	20531	0.31	4.63	0.03
breccia			thin BSDY 150.90 - 150.95+ (may be missing section)											152.54	153.31	20532	0.36	7.89	0.09
			151.61 - 151.78, 155.59-155.83m											153.31	154.45	20533	0.59	4.46	0.20
														154.45	155.59	20534	1.06	2.71	
			hematite gen. dec. down section, richest section 150.52 to 154.90m - where hematite-rich material forms matrix, pyrite disseminated in matrix and conc. along microfractures											155.59	155.83	20535	0.19	0.24	
														155.83	156.40	20536	0.50	2.64	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
156.40	156.72		BSDY	ZA	AM	MS			O	O		156.40	UC/0/55	156.40	156.72	20537	0.30	0.21	
			basalt dyke, contacts sharp but irregular, bleached and clay altered zone in bx at each contact 4 to 8 cm. basalt 3-5% augite phenocrysts and about 2% calcite-filled amygdules									156.72	LC/0/30						
156.72	158.52		CHSB	AR	BR				16	24	PY/BM/1/HE/BM/10			156.72	157.62	20538	0.68	6.17	0.08
			chert and dolomite fragments, matrix supported, matrix very calcareous, in , hematite, to 10% HE over most brecciated zones. -											157.62	158.52	20539	0.75	3.36	0.06
158.52	159.57		DOCH	SA	CR	BR			O	24	PY/SK/1/HE/FR/0.1	159.02	FR/0/65	158.52	159.57	20540	0.71	3.98	0.29
			chert and dol, distinct beds not evident, unit entirely crackled w/ frac. filled w/ dolomite and abundant v.f. cry. pyrite, rare fracs. w/ abund. hem. and minor brecciation																
159.57	160.10		BSDY	ZA	MS	JC			O	O				159.57	160.10	20541	1.00	1.20	
			basalt, ms. w/ 10-15% spherulites, rare vesicles lined w/ pale blue-gy chalcedony appears schistose, completely broken up in core box after spraying w/ water., several DOCH frags incl.																

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NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
160.10	160.93		DOCH	5A	CR				0	24	PY/SK/1			160.10	160.93	20542	0.80	3.57	0.21
		as above 158.52 - 159.57																	
160.93	163.79		BSDY	2A	AM	MS			0	0		160.93	UC/0/30	160.93	161.84	20543	0.85	0.14	
		basalt dyke w/ chunks of DOCH wallrock,												161.84	162.40	20544	0.70	3.43	0.11
		some evidence of internal banding or												162.40	163.79	20545	1.18	1.95	
		clast of aphanitic basalt with v.f. cry																	
		material, augite phenocrysts, calcite																	
		amygdules, crackled DOCH shows abund																	
		hematitic alteration at margins, decreasing																	
		about 2 to 10cm from margin, part of																	
		basalt "schistose."																	
163.79	165.50		DOCH	SA	CR	BX			22	16	PY/05/0.1			163.79	165.50	20546	0.57	3.84	0.38
		chert and predom. dol. frag, crackled to																	
		brecciated, frag.-supported, matrix dol.																	
		v.minr. v.f. cry. py. dissem in frag & matrix																	

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LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
165.50	165.70		BSDY	1A	MS	AM			0	0				165.50	165.70	20547	0.20	3.50	0.63
		dyke, amygdaloidal, material totally broken up, reacts to water ⇒ swelling clays?																	
165.70	170.49	F	GOUG	5A	SH				28	0	PY/DS/0.5/PY/CO/2	166.87	SH/0/35	165.70	167.02	20548	1.16	2.47	
		zone predom. gouge w/ some sections highly										166.87	SH/0/0	167.02	168.28	20549	0.95	1.06	
GOUGE		crackled, brecciated DOCH, esp. 167.02 to 168.27,												168.28	168.55	20550	0.31	1.03	
		abund. qtz frag. in gouge may indicate qtz. veining												168.55	170.07	20551	0.24	0.62	
		also ground up in fault zone,												170.07	170.49	20552	0.38	1.61	
170.49	172.80	F	GOUG	3A	SH				28	19	PY/DS/0.5	170.63	SH/0/60	170.49	171.59	20553	1.10	4.66	1.9
		lt.gy to pink sheared frag. MFCA in med. to										171.10	SH/0/50	171.59	172.80	20554	1.15	0.10	
GOUGE		a.gy highly sheared gouge of clay,																	
		MFCA completely carbonatized (dolomite)																	
		and bleached, gouge contains dissem py.																	
		often showing cubic form																	
172.80	174.66		MFCA	7A	MS	SH			12	19	PY/PT/1/PY/SH/1	173.88	SH/0/50	172.80	173.73	20555	0.93	0.10	
		tuff completely carbonatized and bleached,										173.49	SH/0/45	173.73	174.66	20556	0.86	0.07	
		original rock probably ash and crystal tuffs,																	
		py. as patches (v.v.f.gy. material spotted thru																	
		rock, appear as a.gy. "spots") a few larger patches																	
		also conc. v.f.gy. py. along few shears																	

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DDH 95UG140

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
174.66	176.38		DOCH	BA	CR				12	26	PY/DS/0.1 PY/VN/1			174.66	175.52	20557	0.68	0.21	
		chert and dolomite, no bedding evident, crackled throughout w/ dolomite and calcite along fractures, py. as v. mnr. dissem. in frags and occassional anastomosing pattern of micro-frac. w/ abund v.v.f. ory. py.												175.52	176.38	20558	0.76	0.10	
176.38	176.60		GOUG	2A	SH				29	0	PY/SH/20	176.50	SH/4/40	176.38	176.60	20559	0.25	0.24	
		d.gy sheared clays/gouge, showing evidence of slickensides, some carbonate (calcareous) fragments, abundant v.f. py through lower portion of gouge zone.										176.60	LC/0/20						
GOUGE																			
176.60	176.78		DOCH	BA	CE	BX			14	26	PY/DS/0.1			176.60	176.78	20560	0.19	0.17	
		chert and minor dol, completely crackled and some fracturing and brecciation, frac. filling and breccia matrix calcareous																	
176.78	179.39		GOUG	2A	SH				29	0	PY/SH/0.1 PY/DS/0.1			176.78	178.08	20561	1.14	0.27	
		highly sheared and gouged DOCH mnr. py. dissem. in gouge and in fragments, py. as pyritohedrons to 0.5mm, also as v.f. dissem. in crackle pattern of frags.												178.08	179.39	20562	1.15	0.10	
GOUGE																			

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 23/95

DDH 95U6140

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
179.39	181.17		ARGI	2A	BD	SH	CR.		24	19	PY/CR/0.5	180.00	BD/0/40	179.39	180.39	20563	0.97	0.79	
		argillite w/ MFCA lenses 179.39 to 179.72, 180.43-180.50,										180.05	SH/0/45	180.39	181.17	20564	0.79	0.82	
		180.64-180.74, highly sheared w/ bedding and										180.36	SH/0/75						
GOUGE		lenses of MFCA oriented subparallel to shearing																	
		thin gouge zone 180.11 to 180.43																	
181.17	201.16 E.O.H.		MFCA	7A	BN				0	19	PY/DS/0.1/HE/FR/0.5	183.50	BN/0/15	181.17	182.17	20565	0.98	1.44	
		predom. bleached and carbonatized ash tuffs, variable										185.37	BN/0/55						
		hematitic staining thru rock and along fractures, present																	
		184.71-189.80, unaltered d.green ash tuff, 185.37 to 186.25																	
		and 197.25-199.31, d.gy. brecciated and rehealed																	
		vol. in thin zones 191.81-192.43																	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 22, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
20124	UG 140	.48				
5		.14				
6		.17				
7		.07				
8		.07				
20129		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 24, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S
20030	UG 140	.24				
1		.31				
2		.34				
3		1.44				
4		.96				
5		1.58				
6		.34				
7		.14				
8		1.41				
9		.82				
40		.10				
1		.10				
2		.27				
3		.07				
4		.10				
5		.07				
6		.03				
7		.10				
8		.03				
20149		.03				
20505		TR				
6		.21				
7		.07				
8		.10				
20509		.14				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 25, 1985

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20510	UG 140	.14				
1		.10				
2		.21				
3		.24				
4		.34				
5		.27				
6		.24				
7		.31				
8		.86				
9		.69				
20		1.68				
1		.72				
2		1.06				
3		.10				
4		.07				
5		1.89				
6		2.06				
7		19.53		.9		.38
8		41.14		1.3		.08
9		36.17		.7		.09
30		3.53		.7		.26
1		4.63		4.9		.03
20532		7.89		5.8		.09

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 25, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20533	UG 140	4.46		6.2		.20
4		2.71				
5		.24				
6		2.64				
7		.21				
8		6.17		3.3		.08
9		3.36		5.2		.06
40		3.98		6.5		.29
1		1.20				
2		3.57		4.9		.21
3		.14				
4		3.43		.6		.11
5		1.95				
6		3.84		3.6		.38
7		3.50		.3		.63
8		2.47				
9		1.06				
20550		1.03				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 25, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: (

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	%
20551	UG 140	.62				
2		1.61				
3		4.66		1.9		1.9
4		.10				
5		.40				
6		.07				
7		.21				
8		.10				
9		.24				
60		.17				
1		.27				
2		.10				
3		.79				
4		.82				
20565	E.O.H.	1.44				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE: _____ PAGE 1 OF

DRILL HOLE # G95UG141 PROJECT AREA: GRIZZLY SECTION: 23900N

DRILL HOLE LOCATION DATA

EASTING: 25053.80
NORTHING: 23904.76
ELEVATION: 963.18
HOLE LENGTH (M): 195.67

DRILL DIARY

STARTING DATE: 1/07/95 (DD/MM/YYYY)
COMPLETION DATE: 1/07/95 (DD/MM/YYYY)
LOGGED BY: C.L.T RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: RSM EDITED BY: _____

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	272.231	-65.811	SURVEY
1 (150')	45.72	278.0°	-65.8°	SPERRY
2 (410')	124.97	276.0°	-66.0°	SPERRY
3 (615')	187.44	274.0°	-66.5°	SPERRY
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	16.89	MFCA		119.84	122.02	ARGI	pyrite
16.89	37.29	MFLP		122.02	122.38	VNQZ	
37.29	43.02	MFCA		122.38	124.33	LMSL	
43.02	43.94	VNCA		124.33	126.91	LMST	
43.94	57.94	MFCA	small gouge zone	126.91	142.0	LMSL	
57.94	63.11	MFCA		142.0	144.86	LMSL	
63.11	67.41	ARGI		144.86	148.43	SLST	
67.41	69.88	MFLP	Qtz vein	148.43	149.95	SLST	
69.88	77.64	MFCA	fault?	149.95	151.48	LOST	hit water
77.64	79.55	LMST	pyrite	151.48	153.52	BSDY	
79.55	80.84	ARGI		153.52	155.81	LMSL	
80.84	81.98	DOCH		155.81	159.62	BSDY	
81.98	82.63	VNQZ		159.62	157.67	LMSL	
82.63	87.39	DOCH	pyrite	157.67	161.77	LMSL	
87.39	95.50	DOCH	pyrite	161.77	165.55	BSDY	
95.50	96.23	GOUG		165.55	169.77	LMBX	
96.23	97.37	ARGI		169.77	172.30	GOUG	
97.37	105.98	MFCA	gouge	172.30	177.97	LMST	
105.98	108.99	ARGI	poor recovery	177.97	184.94	GOUG	
108.99	111.08	ARGI		184.94	195.67	MFCA	
111.08	112.92	LMGT					
112.92	119.84	ARGI	minor breccia zones				

COMMENTS:

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

DDH 695U6141

Date: July 28/95

PAGE 1 OF 15

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT.	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	16.89		MFCA	AG	BD	FR			0	22	PY/PT/2/HE/<VN/5	5.82	QD/2/30°						
		MFCA is grey-green w slight pink hue. Betwn 7.78-8.55 is piece of unaltered MFLP. Several carbonate stringers present. From 9.85-16.89 is v. hematite stained and altered MFFL. Px + plag can be seen. Within hematite stained area there is several areas										13.9	VN/2/30°						
												14.02	FR/0/20°						
		w hematite veins. From 11.15-11.28 is area which has been replaced by xtal carbonate. See vuggys and replacement. Contact betwn altered and unaltered is conformable and abrupt at 7.78. Patches of brassy pyrite																	
16.89	37.29		MFLP	3G	BD	FR	PP		0	16	PY/VN/.5	HE/VN/1	17.38	CV/2/70°						
		dark green w visible px and plag xtls. Some hematite staining but mainly along fractures. Some areas look like MFLP but majority MFFL. At 17.3 a fracture is displaced - possibly due to faulting/stress. Area betwn 20.03-20.74 which is MFCA and hematite coated. Epidote is visible. Minerals are foliated.										19.18	FR/0/50°						
												22.17	BD/0/60°						
		at 32.61 there is a 8cm qtz. vein																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: C. Tucker

Date: July 24/95

DDH G95U6141

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
37.29	43.02		MFCA	AT	FR	VN			0	18	HE|VN|10	37.72	VN|1|70						
			altered MFCA which is v. pink due to amt. of hematite staining. carbonate altered and hematite folows viens minor carbonate stringers; no pyrite. As get close to carbonate vien the amt of carbonate ↑ and MFCA ↓.									37.87	Fe|0|50						
43.02	43.94		VNCA	TW	FR				0	0		43.42	Fe|0|20°						
			mainly pure carbonate w minor amts of MFCA. quite fractured. coarse grained.																
43.94	57.94		MFCA	AG	FO	FR			0	24	PY|GO|10 HE|VN|5 FU|VN|20	48.45	FR|0|40°	44.65	45.18	19901	.42	.14	
small gauge zone.			grey green altered MFCA, viens of manposite and hematite. In broken fractured areas there is an increased amt of pyrite. Minor carbonate stringers. Seems to be preferential alignment of manposite causing foliation. Hematite viens are almost // to core axis. Pyrite occurs within gauge zone 44.65 - 45.18.									49.03	QD|1|50°						
												50.42	FR|0|25°						
												55.01	Fe|0|35°						
			As continue down section MFCA becomes more fractured. Less bleached then above MFCA and there is a significant increase in the amt of py esp in gauge zone. Pyrite is also seen and DS areas.																

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: C. Tucker

Date: July 24/95

DDH G95U6141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
57.94	63.11		MFCA	GA	FR	MS			0	12	FU/VN/1 / HE/VN/1	60.47	CV/3/60°						
			red grey MFCA which has darken due to ARGI. Fractured and has numerous carbonate stringers. minor amt of mariposite. few veins of carbonate replacement (calcite). minor amt of hematite veining.									61.75	FR/0/25°						
63.11	67.41		ARGI	AN	FO	BN	FR		0	22	FU/VN/.1 / PY/DT/5	63.58	BN/1/75°	63.78	65.23	19902	1.33	.07	
			alternating bands of MFCA(20%) and ARGI (80%). ARGI is quite foliated and appears to fracture along this weakness. Minor carbonate stringers throughout. Pyrite appears in patches within the ARGI and x cuts the foliation. v. minor amt of maripositc. ARGI slightly carbonatized.									64.66	BN/1/50°						
												65.17	QD/2/70°						
												66.14	QD/3/10°						
67.41	69.88		MFLP	AG	MS	FR			0	0	FU/VN/.5 / PY/DS/.1	63.58	QV/3/30°						
			visible px grains, massive dark green MFLP; minor carbonate stringers. Qtz vein at 63.58 and is approximately 5cm. Small amt of insible pyrite. Minor veins of maripositc. Becomes fractured as continue down section.																
69.88	77.84		MFCA	AW	BN	FR			16	20	FU/VN/2 / PY/DT/10	77.2	FR/10/45						
Fault?			Alternating areas of MFCA and carbonate. The MFCA is approximately 80% and carbonate 20%. Visible pyrite follows veinst patches. MFCA is grey-green and carbonate is white-grey colour quite fractured because passing boundary from volcanics into carbonates.																

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: C. Tucker

Date: July 24/95

DDH G95UG141

PAGE 4 OF 15

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
77.64	79.55		LMST	AW	BD	MS			0	12	FU/VN/.5 / PY/DS/1	77.96	BD/1/50°	77.64	78.64	19903	1.02	.14	
														78.64	79.55	19904	0.90	.07	
			white-grey LMST which is medium bedded, manposite follows																
			viens. pyrite is DS throughout section, weakly silified																
			not very fractured. small areas w vugs and calcite replacement.																
			As continue down section gets a little darker due to pyrite																
			increasing and argi.																
79.55	80.84		ARGI	AN	FR				0	22	PY/DS/1 / FU/VN/.1	80.23	BD/1/60°	79.55	80.84	19905	1.08	.03	
			grey-black banded ARGI w minor amts of carbonate. one area is																
			quite folded and the rest is quite fractured. pyrite is DS																
			and less is in patches. Manposite follows viens and is quite																
			minor.																
80.84	81.98		DOCH	GA	FR	BD			14	12	PY/PT/2 /	81.43	FR/0/60°	80.84	81.98	19906	1.16	.07	
			weakly dolomitized DOCH; chrt bands and clasts of dark chrt.																
			one small area is brecciated 81.15-81.38 clast are angular																
			and carbonate. Area is banded. Pyrite is in patches as well as																
			viens. Small vugs w calcite replacement.																
81.98	82.63		VNQZ	AW	FR				0	0									
			qtz vien which has some calcite replacement. minor amts																
			of DOCH viens within qtz vien. few small clasts of carbonate																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 24/95

DDH 95-46-141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
82.63	87.39		DOCH	AW	BD	MS			0	24	PY/FW/2/PY/DS/1	83.64	BD/1/25	82.63	83.63	19907	.76	.07	
		white grey dolomite and chert w. folds and bands.										85-62	FR/01/25	83.63	84.63	19908	.95	.17	
		A few small areas of qtz. DOCH is moderately silicified												84.63	85.63	19909	.92	.17	
		few small veins of manposite; pyrite is quite ds and																	
		not v. abundant. Chert is quite translucent. A few veins																	
		of calcite are within the bands. few areas w dkgi bands.																	
87.39	95.50		DOCH	AW	BD	FR			2	22	PY/VN/2/PY/VN/2	90.22	FR/0/15°	87.39	88.39	19910	1.01	.07	
		chrt, qtz, calcite + dolomite bands; some of the banding is										90.61	BD/1/30°						
		almost parallel to the core axis while others are at a low angle.																	
		A couple of intervals w brecciation. Traces w manposite in veins																	
		and along fractures. Pyrite also follows veins. few wgs w calcite																	
		replacement. As get down lower in the section the DOCH gets																	
		quite fractured and broken up. Some of the pieces are																	
		rubble size																	
95.50	96.23		GOUG	HA	GO	FR			20	22	PY/VN/1								
		broken, fractured DOCH which may be minor brecciated																	
		also appears to be some calcite replacement. Minor amts																	
		of manposite along veins. Lacks any py.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 25 95

DDH 95UG141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
96.23	97.37		ARGI	AN	FR	BD			12	0	PY/DS/1 /	96.28	BD/1/50						
			grey black ARGI w/ veins of MFCA. there is a few carbonate stringers; ARGI is banded as well as bedded. Pyrite is disseminated. the ARGI is fractured and some breaks along banding. One band is displaced - possibly due to stress/strain.																
97.37	105.98		MFCA	SA	FR	SH			14	22	PY/PT/2/FUIVM.5	99.28	QV/3/60°						
			grey MFCA w/ interbeds of ARGI which is banded w/ minor carbonate stringers. QV ~ 5cm long at 99.28, manposite along contact betwn QV and MFCA. As continue down section shearing intensity increases and from 105.76 - 105.98 there is a minor gouge zone. Pyrite is found in patches within the MFCA											104.47	SH/1/80°						
GOUGE																			
			and DS within the interbeds of ARGI. There are 2 distinct zones of the ARGI and the rest is MFCA. A few places the MFCA is weakly silified. A few minor zones of brecciation.																
105.98	108.99		ARGI	AN	FR	BD	BN		12	12									
			argi is grey - black colour which is weakly banded. Rx is quite fractured and recovery is poor. Infilling fractures is carbonate cement. Maybe minor brecciation but core is so small that it is difficult to tell V. black so possibly graphitic.																

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 26/95

DDH 695U6141

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
108.99	111.08		ARGI	AN	BD	FR			12	O	PY/DS/5	109.83	FE/0/35						
		black ARGI is weakly bedded w carbonate stringers and DS pyrite. Quite soft, probably graphitic. A few clasts of chrt. Rx is not silified except for minor chrt areas. Minor gouge areas.																	
111.08	117.92		LMGT	AN	BD	PE			O	O	PY/VN/5	111.59	BD/1/65°	111.08	112.08	19911	0.90	.10	
		thinly bedded limestone and siltstone which in places is highly fractured. bedding is range betwn 65-80°. PY is found in vns as well as patches. few carbonate stringers through LMGT. As continue down section it increases in fracture intensity.												112.08	112.92	19912	0.95	.07	
112.92	119.84		ARGI	AN	FR	BD			14	22	PY/PT/1	116.97	CV/3/35°	112.92	113.92	19913	0.97	.07	
		v. chalky ARGI which has a few brecciated areas. weak bedding in parts of the ARGI. Small qtz vein ~3cm. some bedding in parts of the ARGI. Quite fractured along bedding/foliation. calcite vein which is ~15cm and mildly crackled. One area betwn 117.95-119.46 which has v. poor										119.46	QC/3/30	113.92	114.92	19914	0.96	.07	
		recovery. Another vein which appears to be v. silified limestone. The lower contact betwn the limestone vein and the ARGI is quite conformable. Pyrite is found in patches within the ARGI as mildly altered veins																	

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122.52
.49

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 26 94

DDH 95SU014

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
119.84	122.02		ARGL	AN	BX	SK			14	O	PY/PT/2	120.64	FR/0/40°						
		brecciated and stockwork grey-black ARGL. Qtz vns throughout the ARGL. The foliation is wavy and not parallel like above ARGL. The rock is softer and lacks chl. In the brecciated zone the clasts are rounded, some amt of carbonate in matrix																	
		Pyrite is in patches as well as viens. Some core loss.																	
122.02	122.38		VNQZ	AW					0	0									
		qtz vein which has remnants of ARGL - it is possible that qtz replaced the ARGL but hard to distinguish. Lower contact between ARGL and VNQZ is quite abrupt while upper contact is less distinguishable. It is somewhat folded.																	
122.38	124.33		LMSL	AN	FR				14	22	PY/PT/5			122.38	123.38	19915	0.91	.27	
		Finely banded quite pyritic grey-black LMSL, several colour variations due to amt of pyrite. Some areas look quite garnet. Small qtz vein within LMSL. Small amt of brecciation. Pyrite is found within patches and viens.												123.38	124.33	19916	0.86	.10	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 26/95

DDH G95UG141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
124.33	126.91		LMST	7A	CL	FR			0	12	PY/DS/1	125.49	FR/10/50	124.33	125.33	19917	0.88	.03	
		Contact betwn LMST and LMSL appears cracked and fractured.										126.91	LC/0/50	125.33	126.91	19918	1.48	.07	
		the rest of the rock is cracked and fractured too.																	
		Small amt of visible disseminated pyrite. Se carbonate																	
		lenses within the LMST. The limestone begins to darken																	
		as you go down towards the LMSL. The lower contact																	
		betwn LMSL and LMST quite conformable and abrupt.																	
126.91	142.00		LMSL	4A	FR	VG			12	26	PY/PT/1	139.94	PE/0/55°	126.91	127.91	19919	0.94	.03	
		vuggy and fractured silified grey limestone, qtz viens and												127.91	128.62	19920	0.87	.03	
		carbonate stringers. some small areas w stockwork. Qtz												128.62	130.14	19921	0.81	.03	
		viens 15cm from 140.94. A couple of small areas												130.14	131.67	19922	0.42	.24	
		of brecciation. See sulfides under microscope.												131.67	133.19	19923	0.12	.24	
		Grey qtz can be seen along fractures, Py/Po is in patches												133.19	134.72	19924	0.59	.31	
														134.72	136.24	19925	.65	.14	
		(brassy) and viens. The top part of the section												136.24	137.76	19926	0.75	.31	
		is more broken.												137.76	139.29	19927	0.74	.14	
														139.29	140.81	19928	1.36	.27	
														140.81	142.00	19929	1.02	.24	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 27/95

DDH 95546-141

PAGE 10 OF 15

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
142.00	144.86		445E	4A	BX	FR			24	24	PY/DS/1	142.92	FR/0/60°	142.00	143.00	19930	0.93	.14	
		dark grey silicified + brecciated limestone. Quite a number of veins in areas. Brecciated areas are matrix supported w clasts of silicified limestone. Rounded clasts, some rotated. Pyrite (brassy) is as mineralization and grey pyrite can be found along veins. Some areas are vuggy.												143.00	144.86	19931	0.73	.14	
144.86	148.43		SLST	3A	BD				12	22	PY/DS/1.5	145.32	BD/1/70	144.86	145.86	19932	0.89	.07	
		dark grey calcareous sandstone, finely bedded. Pyrite is disseminated and not v. abundant. Grains of sand are limestone. Close to bottom of section 40 cm BSDY. Some areas vuggy. At end get a bedding change where more folded. Probably contains abundant limestone.												145.86	146.86	19933	0.71	.27	
														146.86	148.43	19934	1.44	.14	
148.43	149.95		SLST	3A	BD				0	22				148.43	149.95	19935	0.14	.17	
		bedded sandstone; large core loss so v. difficult to tell. Amount of core: approximately 10 cm. Lacks pyrite. Does not effervesce in HCl → probably lacks carbonate grains. No structure due to core loss																	
149.95	151.48		LOST																
		hit water																	

* hit water

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 27/95

DDH G95UG141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
151.48	153.52		BSDY	N	PAT	MS			0	0				151.48	153.52	19936	1.08	.21	
		basalt dyke w 2 small bands of high intensity silified limestone, irregular conc'n of amygdaloidal augite and calcite fine carbonate veins																	
153.52	155.81		LMSL	TN	CR				12	28	HE/00/10	154.23	FR/0/60	153.52	154.53	19937	0.64	.14	
		white crackled and silified which is v. hematitic. Quite stained and along fractures the hematite follows. Limestone is present. Limestone is v. silified. Does not really effervesce in HCL. Same seen in G95UG135 w BSDY												154.53	155.81	19938	0.56	.07	
155.81	156.62		BSDY	N	PAT	MS			0	0				155.81	156.62	19939	0.71	.07	
		massive basalt dyke w amygdaloidal calcite and augite fine carbonate veins.																	
156.62	157.67		LMSL	TN	CR	FR			14	28	HE/CO/20	156.71	FE/0/50°	156.62	157.67	19940	0.65	0.24	
		white crackled very silified limestone which is quite hematitic. Hematite is mainly coating the rock. Does not really effervesce in HCL. same rock type seen in G95UG135 w BSDY. could be possibly brecciated.																	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 28/95

DDH G95116141

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
157.67	161.77		LMSL	AW	CR	FR			12	22	HE/CO/2/PY/DS/1	158.00	FR/0/60°	157.67	159.1	19941	1.15	0.93	
		White grey weakly silified limestone which is cracked.										159.58	FR/0/70°	159.1	161.77	19942	1.23	1.89	
		most of it faces hematite coatings but a small interval																	
		160.32 - 160.62 has an increased amt of hematite staining																	
		just like above interval. Small 10cm basalt dyke closer																	
		to the hematite staining. Limestone is quite fractured																	
		and possible brecciation. Does scratch minorly and																	
		effervesces in HCl. Pyrite is minor and ds.																	
161.77	165.55		BSOY	AN	AM	MS			0	0		163.26	FR/0/30°	161.77	162.77	19943	0.98	0.10	
		variable basalt dyke which is massive and										163.82	FR/0/30°	162.77	163.77	19944	1.02	0.10	
		amygdaloidal. Parts are v. fine grain and other												163.77	164.77	19945	0.99	0.07	
		parts are coarse grained. Carbonate fills the												164.77	165.55	19946	0.71	0.07	
		amygdules.																	
165.55	166.72		LMBX	AW	BX	SH	FR		22	12	PY/DS/1	165.95	FR/0/80°	165.55	166.72	19947	1.17	1.78	
		brecciated and sheared limestone. Clast size and																	
		shape are variable from subrounded to subangular.																	
		Clast composition is carbonate. Breccia is matrix supported																	
		and the matrix is fairly coarse grained.																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tacker

Date: July 28/95

DDH G95UG141

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
166.72	168.24		LMBX	AW	BX	FR			14	12				166.72	168.24	19948	0.07	0.62	
		grounded up carbonate and basalt dyke. Core loss is high ∴ poor recovery. Rock size ranges from 1-6cm. Main rock type is limestone breccia. Matrix supported and carbonate clasts. no structure due to condition of core.																	
168.24	169.77		LMBX	AW	BX	CR	FR		14	22				168.24	169.77	19949	0.14	0.72	
		poor recovery but appears to be LMBX which is crackled and fractured. more silfied then above breccia. Matrix supported and clasts are subangular.																	
169.77	172.30		GOUG	AW	GO	FR					PY/PT/5			169.77	171.29	19950	1.09	0.21	
footwall fault between carbonate and volcanics.		gouge and pieces of MFCA. Also small pieces of carbonate. In the upper part of the gouge it look like pieces of basalt dyke.												171.29	172.30	19951	0.76	0.10	
172.30	177.97		LMST	AW	CR	FR	GO		12	12	PY/VN/2			172.30	173.30	19952	0.91	0.07	
		white grey minorly crackled and fractured limestone												173.3	174.34	19953	1.05	0.07	
		small gouge zones filling the fractures; weakly												174.34	175.34	19954	0.97	0.07	
		dolomitized. Pyrite occurs along veins. As get closer												175.34	177.38	19955	0.81	0.10	
		to end of section get an increase in the amt of gouge												177.38	177.97	19956	0.54	0.10	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 29/94

DDH G95U69141

PAGE 4 OF 15

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
177.97	184.94		GOUG	4A	FR	SH			24	14	PY 1 OS 1			177.97	178.97	19957	.99	0.10	
footwall fault											gouge zone w/ clasts of MFCA and LMST in a v. fine grained mass fractured and sheared buff zone; fairly good recovery. Clasts are a mixture and there is no definite zone w/ one clast type. MFCA fragments > LMST fragments one fragment of LMSL.			178.97	179.97	19958	0.96	0.10	
														179.97	180.97	19959	0.97	0.14	
														180.97	181.97	19960	1.08	0.07	
														181.97	182.97	19961	0.96	0.10	
														182.97	183.97	19962	0.94	0.07	
									14	12				183.97	184.94	19963	0.92	0.41	
184.94	188.51		MFCA	AG	FR	SH	BX		14	12		186.19	FR 10 50°	184.94	186.53	19964	1.03	0.21	
											altered volcanics which are fractured and sheared. One small area appears brecciated. Clasts are subrounded, matrix supported and clast composition appears to be carbonate. A few small qtz veins around the brecciated area. A small section is gouged and is still MFCA. Weakly altered and lacks pyrite. Along fractures	186.26	FR 10 65°	186.53	187.53	19965	1.02	0.07	
														187.53	188.51	19966	0.77	0.10	
											there is some shearing and some of the fractures are infilled w/ purple clay.								

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 30/95

DDH G95-46-141

PAGE 15 OF 15

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT.	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
188.51	195.67		MFCA	AH	FR	SH			14	14	LI|CS| 1 |HE|VN|		

grey mauve fractured and sheared MFCA. Minor limonite staining. Strong sheared fractures green clay infills. Minor carbonate veins. Hematite staining along veins and fractures. In a few places there is minor gouge. One or 2 qtz veins present.

EOH

A couple of colour changes from mauve-grey to green grey, probably due to dominant mineral changing from chlorite to something else.

E.O.H.

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
188.51	189.58	19967	0.94	0.07	
189.58	190.58	19968	0.91	0.17	
190.58	191.58	19969	0.90	0.07	
191.58	192.58	19970	1.02	0.10	
192.58	193.58	19971	0.94	0.10	
193.58	194.58	19972	0.99	0.07	
194.58	195.67	19973	0.98	0.07	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 27, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19901	UG 141	.14				
2		.07				
3		.14				
4		.07				
5		.03				
6		.07				
7		.07				
8		.17				
9		.17				
910		.07				
1		.10				
2		.07				
3		.07				
4		.07				
5		.27				
6		.10				
7		.03				
8		.07				
9		.03				
920		.03				
1		.03				
2		.24				
3		.24				
19924		.31				

GOLDEN BEAR OPERATING COMPANY

DATE: July 28, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
19925	UG 141	.14				
6		.31				
7		.14				
8		.27				
9		.24				
930		.14				
1		.14				
2		.07				
3		.27				
4		.14				
5		.17				
6		.21				
7		.14				
8		.07				
19939		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 31, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
19940	UG 141	.24				
1		.93				
2		1.89				
3		.10				
4		.10				
5		.07				
6		.07				
7		1.78				
8		.62				
9		.72				
950		.21				
1		.10				
2		.07				
3		.07				
4		.07				
5		.10				
6		.10				
7		.10				
8		.10				
9		.14				
960		.07				
1		.10				
2		.07				
19963		.41				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 31, 1985

MINE ASSAY REPORT (SAMPLES)

ASSAYER: J

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S
19964	UG 141	.21				
5		.07				
6		.10				
7		.07				
8		.17				
9		.07				
970		.10				
1		.10				
2		.07				
19973		.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # G95UG 142 PROJECT AREA: GRIZZLY SECTION: 24 000 N

DRILL HOLE LOCATION DATA

EASTING: 25080.315
NORTHING: 23980.103
ELEVATION: 955.561
HOLE LENGTH (M): 257.9m

DRILL DIARY

STARTING DATE: 22/07/95 (DD/MM/YYYY)
COMPLETION DATE: 29/07/95 (DD/MM/YYYY)
LOGGED BY: GFM RIG: CONNORS
CONTRACTOR: ADVANCED CORE SIZE: NQ
SURVEYED BY: RSM EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	281.602	-55.381	SURVEY
1 (168')	51.20	(309°) Bad reading	-56.3°	SPERRY
2 (353')	107.59		-58°	ACID
3 (548')	167.02		-57°	ACID
4 (653')	199.02		-54°	ACID
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS

COMMENTS:
Some acid tests were taken due to unstable ground conditions + high downhole water pressure.
Hit water at 61.57m (202.5ft) and 162.45m

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: Cassandra Tucker

Date: July 24/95

DDH GA546142

PAGE 1 OF 18

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	1.52		CASE																
1.52	5.61		MFFL	3G	MS	PP			19	14	HE/VN/5	1.88	FR/0/60°						
			dark green w visible plag and px clasts, weakly bedded w carbonate and hematite veins. Small patch of hematite coatings. mildly fractured w good recovery. Px is mainly massive and porphyritic → v. coarse grained									3.36	QA/1/20°						
												4.69	QA/1/35°						
5.61	9.65		MFCA	AN	MS				0	24	FG/VN/1/PV/VN/2	7.5	DV/1/50						
			carbonate altered white grey volcanic Px w carbonate veins. Two areas w hematite staining. Visible px clasts. some visible magnetite, fairly fractured and bleached. Large clast of silified carbonate. Veins of py and smaller DS py.									8.91	FR/0/60						
9.65	12.88		MFCA	GA	MS				0	26	PY/FR/5/HE/FR/1	11.86	FR/0/70						
			carbonate altered light grey MFCA, LSS bleached when above and more pyritized. MSO has an increased amt of fractures and carbonate replacement. Appears to be weakly foliated. Py is mainly in veins but also DS. Small amt of hematite Carbonate content has increased compared to above.																

NORTH AMERICAN METALS CORP Logged by: GFM DDH 95UG142
LITHOLOGY LOGGING SHEET
Date: July 26/95 PAGE 2 OF 18

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
		numerous thin gouge zones, notable at 10.64 to 11.58, (section missing),										12.20	SS/0/58						
12.28	14.02		VNQZ	BN	CR	SH			22	24	PY/DS/5 | HE/DT/0.5			12.28	14.02	20301	1.44	0.48	
		sheared, fractured zone w/ abundant qtz and lesser dol. vein material (vein total 0.94m = 53% interval) walls somewhat gradational contact w/ sheared and fractured MFCA, becoming more altered and fractured in "vein", contacts w/ qtz bodies relatively										12.28	UC/0/50						
												12.29	SH/0/50						
		sharp, but not planar - no evid. slickensides,																	
		qtz - carb. crackled, anastomosing pattern and patches										12.49	BN/1/70	← pyrite band in MFCA					
		dark material - predom. v.f.cry. py. in hairline										12.70	QV/0/70						
		frac. of crackle, py. also as abund. DS to py-rich										12.81	FR/0/42						
		bands in altered vol.)										13.40	BN/1/65						
												13.42	QV/0/65						
		13.75 to 13.87 - BSD4, chilled margin ~2 mm,																	
		gen. aphanitic w/ phenocrysts of augite,										13.75	DY/0/52						
		often fractured, 3-5%, wh. calcite in micro-										13.87	DY/0/54						
		frac and vesicles.										14.02	LC/0/55						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

DDH G9546142

Date: July 26/95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
14.02	19.17		MFCA	7A	BN	FO	VN		14	24	PY/DS/5 // FU/PT/.5	16.15	BN/1/60	14.02	15.02	20302	0.97	0.21	
			med. gy-green, to med. pinkish-gy, to predom. v.lt gy - totally bleached tuffs, lapilli tuff at top of interval, predom. ash tuffs, mnr. a.gm essentially unaltered ash tuff, all well-banded or bedded and foliated ⊥ to sub-⊥ to bedding, abundant py	18.02	BD/0/32	15.02	16.02	20303	0.98	0.24	
												19.05	BN/1/30	16.02	17.02	20304	0.97	0.24	
														17.02	18.02	20305	0.90	0.07	
														18.02	19.17	20306	1.25	0.14	
											disseminated throughout, some conc. in certain bands, narrow zones abound fuchsite developed, esp. 17.58 to 17.68 m, mnr. disseminated HE apparently replacing py as evidenced by cubic form, irreg. narrow qtz. veins and lenses.								
19.17	19.72		LMST	1A	BD	FO	VN		0	22	PY/DS/2	19.23	FO/0/20						
			blk and lt.gy banded rock w/ blk laminae of argillaceous and carbonaceous material, lt.gy bands predom. ls, containing notable calcareous clasts, gen rd. to rect. in X-sect (crinoids?), schistosity developed sub-⊥ to banding so laminae	19.62	FO/0/35						
			tend to be discontinuous, wispy qtz carb veins/lenses/augen(?) developed along bedding/banding planes abundant v.f. cry. py. ass. w/ arg. layers								

NORTH AMERICAN METALS CORP Logged by: GFM DDH 95U6142
LITHOLOGY LOGGING SHEET
Date: July 26/95 PAGE 4 OF 18

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
19.72	20.87		MFCA	SA	FO	BN			12	24	PY/DS/1								
			mod gy. finely laminated, altered and bleached ash tuff, well developed foliation subll to banding, mnr. qtz veining/augen ll to banding, py, as s.f. cry. dissem. thru.									20.45	FO/0/20						
												20.87	LC/0/55						
20.87	22.10		ARGI	ZA	BN	SK			14	24	PY/DS/1/FU/FR/.1								
			dgy to blk argillite w/ interbeds of MFCA (20% of interval), thin liney beds as noted above 19.17 to 19.72m, interval cut by numerous intersecting qtz. veinlets esp. thru. arg. units, bedding highly contorted, tightly folded, including									19.89	BN/1/55						
			offset of qtz veins along bedding planes																
22.10	23.21	F	MFCA	SA	SH	BN			26	24	PY/DS/0.5/FU/BD/0.1			22.10	23.21	20307	1.17	0.10	
? FAULT ZN			mod. gy. to green-gy altered ash tuffs, w/ interbeds of argillite, arg. is graphitic strongly sheared to brecciated, shearing surfaces not planar, irreg., often at low angle to bedding									22.46	BD/1/60						
												22.84	SH/0/10						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 26/95

DDH 95 46 142

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
23.21	38.50		ARGI	2A	BD				12	12	PY/DS/0.1/FU/FR/0.1								
			finely laminated argillite, in part carbonaceous ⇒ w/ laminae I mey siltstone and interbeds of MFCA, appears to be banded, bleached and pervasively anker itic alt, rare evidence of folding and off-set along fractures,							graphite developed on cleavage planes							
												25.30	BD/1/63						
												27.19	BD/1/75						
												33.27	FO/0/53						
												35.74	BD/1/74						
												35.74	FR/0/74						
			minor thin X-cutting calc. veinlets and thicker qtz veins gen. ⊥ to bedding, rare py specks																
38.50	39.37	F	ARGI	1A	SH				26	24	PY/BM/5	38.50	UC/0/73	38.50	39.37	20308	0.7	0.55	
Fault Zn.			argillite, gen. v. blk and carbonaceous (graphitic) w/ subordinate MFCA, brecciated									"	SS/0/73						
			interval predom. sheared, although several intervals unbroken MFCA, ash tuff, carbonatized and bleached (no ankerite noted),									39.01	SH/0/60						
39.37	43.33	F	MFCA	5A	SH	BN	BX		26	24	PY/PT/2	39.55	SH/0/65	39.37	40.37	20309	1.10	0.10	
Fault Zn.			predom. MFCA w/ narrow carbonaceous arg., sheared and brecciated w/ some large frag unbroken wl. rk, development true fault gouge several thin zones (41.40 to 41.68) noteable fuchsite upper part of interval,											40.37	41.37	20310	0.91	0.21	
														41.37	42.37	20311	1.02	0.21	
														42.37	43.33	20312	0.92	0.99	

py. diss., as patches, streaky conc. in altered MFCA.

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
43.33	45.62		MFCA	SA	MS	BN	SIL		24	24	PY/PT/2			4333	45.62	20313	2.35	0.21	
		m.gy. to greenish and pinkish, gen. aphanitic w/ banding outlined by slt. colour changes and patches and dissem. of pyrite, banding irreg, folded, evid of micro faults and some narrow shear and breccia zones																	
45.62	51.57		ARGI	IA	BD	BX			22	12	PY/DS/2								
		a.gy. to blk. arg. w/ ~15% MFCA, some limey siltstone beds										46.63	BD/1/90	50.48	51.57	20314	1.21	0.14	
												47.97	BD/1/73						
		upper contact 20cm brecciated zone but gen v. planar bedding, micro stockwork 50.48 to 50.77m										51.05	BD/1/82						
		abund py dis throughout arg and MFCA.										51.05	FO/0/82						
		48.0 to 48.80: med.gy, arg, limey siltst. w/ coarse cry. cal. vein gen. ⊥ to core axis,																	
51.57	62.29		MFCA	7A	BN	BD	MS		0	19	PY/PT AS FL/PT/0.1/HE/1N/2	52.10	BN/1/70	6029	62.29	20315	2.06	0.17	
		well-banded to ms. and crackled carbonate and crystal altered and bleached ash, tuffs with 15-20%										52.88	BD/1/60						
												56.13	BD/1/80						
		of interval. blk arg. w/ mnr. d.gy. siltst. laminae,										59.62	FR/0/57						
		rare X-cutting wh. dol. veinlets										60.61	FR/0/46						
		fuchsite developed through some ash laminae																	

* Note: H₂O added 61.57m (202.5ft)

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Date: July 27/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
			and rarely along frac																
			hematite stn. of bleached MFCA much of lower																
			part of interval 59.83 to 62.29m, hem. conc																
			along rare frac. and crackle pattern																
			py dissem patches and bands scattered through																
62.29	68.04		MFAS	3G	MS	VN			0	0		62.29	GO/0/40						
			massive d.grn. ash tuffs, little evidence of									64.20	VN/1/08						
gouge zone			banding, irreg. patches and spots epidote									64.20	SS/0/20						
			alteration, upper contact thin gouge zone									64.50	VN/1/20						
			mnr. calc. and one qtz-carb. vein (banded w/									64.56	SS/0/15						
			qtz as central band), no py. noted																
68.04	70.07		MFCA	7A	BN				0	12	PY/DS/0.1	68.30	VN/0/17						
			light gy. to some d.grn, where variably altered and									68.50	BN/1/30						
			bleached																
			rare X-cutting calcite frac.																
			only occassional py specks																
70.07	73.01		MFAS	GR	MS	BN	GO		12	0		70.27	FR/0/47						
			d.grn. to dark red-br maroon, ash to lapilli									70.54	BN/2/13						
			tuffs, much hematitic alt. of iron in vol. 71.05 to																
gouge zone			71.89, remainder of interval d.grn. vol. w/ patches																
			brt. grn. epidote alteration																

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78.01	79.78		MFCA	GR	BD	VN			0	14	HE/IN/0.5/FU/PT/5								
		pale grn. and pink bleached ash tuffs and lapilli tuffs to maroon to blood red and brn ash tuffs, cut by dd. veins which show banded internal pattern, and open-space filling variable and irreg hematite as interstitial or										76.60	VN/2/10						
												78.32	BN/1/55						
												79.38	BN/1/50						
		groundmass material fuchsite alt. fairly well devel over part of interval gen fuchsite-rich bands, also occur along fractures.																	
79.78	84.02		MFCA	7A	MS	GR	BN		14	12	HE/IN/0.1	80.36	SH/0/30						
		gen lt. gy, altered ash and crystal tuffs, in part strongly silicified, crackle text. developed where silicified, smeary hem. alt. to d. maroon, gen irreg, variable alteration										83.16	BN/4/40						
84.02	84.32		VNCA	W	MS				0	0		84.02	UC/0/30						
		thick, ms, white c.f. cry. calcite vein contacts irreg., no evidence SS or SH no py. noted.										84.32	LC/0/50						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
84.32	86.75		MFGA	5A	BN	FO			12	12									
		lt. tom. gy and green-grey, ash tuff w/ minor crystal tuff and lapilli tuff, extensively altered (carbonatized) and bleached, somewhat foliated										85.06 86.06 86.34	FR/0/65 FO/0/37 BN/1/50						
86.75	112.40		ARGI	3A	BD				24	22	PY/OS/0.5	88.66 96.73 96.73 97.02 98.20	SC/0/65 SC/0/65 BD/0/65 BD/5/25 FR/0/10 HE stain						
		dark gy. silty argillite to calc. arg. to minor blk. carbonaceous argillite, v. finely lam. where carb. to beds to about 0.5m where silty, some units silicified to limey chert 97 to 99 m thin brecciazns. devel. esp where carbonaceous somewhat foliated even thicker beds show ll orientation of mineral grains, tight folds w/ axial shears to open folds, minr HE staining along fractures, Crock highly fractured, gen. broken up in core boxes)																	
		Py dissem thru as v.f. cry, esp. ass. w/ carb. laminae.										noted., gen mc. downwards in interval							
112.4	114.49	F?	ARGI	2A	BX	SH			26	24	PY/BM/2	113.83 114.38	SH/0/75 SH/0/60						
Fault Zone ?		argillite a.a., somewhat calc., abund. blk. carb. material, gen. sheared and forming matrix to breccia, arg and silty laminae gen brecciated, zone also contain large (to 5cm) frag. underlying wh. ls., many frag. silicified, v. hard and brittle,																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											matrix blk gen v. carb and v. arg., v.f. cry py. dissem. thru								
114.49	117.02		LMST	W	MS	FR	BD		12	0	PY/DS/0.1	114.99	BD/1/40						
											wh. ls. w/ bedding faintly outlined by sli. colour variations, some beds appear broken up, some laminae (v. pale grey) v. siliceous, mor. argillite as thin interbeds (or may be structurally emplaced as highly brecciated, laminae discontinuous), minor arg. material in ls now gen. conc. along rare stylolites and in crackle pattern ls. gen v.f. to microcrystalline only sulphides ass. w/ argillite beds, in bx matrix as noted for interval above. 112.40-114.49m									
117.02	125.99		ARGT	3A	SK	SH			16	22	PY/SH, BM/2	117.64	SH/0/60	121.99	125.99	20337	1.01	0.10	
											argillite often sli limey, some silty beds, many carbonaceous partings and possibly thicker units now gen. highly sheared and/or forming bx matrix, near top of interval some larger frag. of wh. ls. seen in interval above, bx more abund. base of interval, well-devel. stockwork thru much of interval of calcite veinlets	118.26	SH/0/70						
												121.63	FR/0/42	← HE stain					

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
		py relatively abund in arg/carb breccia matrix and along relatively numerous but wide spaced shears developed preferentially along carb. laminae rare HE staining along frac. i.e. 121.63m contact w/ MFCA irreg,																	
125.99	133.27		MFCA	BR	MS	BD	BX		12	12	PY/DS/S/HE/FR/0.1	126.83	BN/1/50	130.27	131.27	20316	1.02	1.51	
		variably altered ash and mar. crystal tuff,										130.63	UC/0/60	131.27	132.27	20317	0.96	0.69	
		gen carbonatized and bleached w/ mar. hem. alt resulting in pink colour, esp top of interval, lower										BX ZONE		132.27	133.27	20318	0.98	0.17	
		part gen. med gy., carbonatized but not bleached or HE stained, occ. tuff shows clay alt. plag. cry.,										131.16	LC/0/55						
													flow contact						
												132.62	BN/0/40						
		py seen as mnr. diss. but devel. signif. patches, py. in bx matrix (where thin bx zones developed) and disseminated thru rock to 5% or more of rock lower 2m (interval sampled), HE along fractures contact w/ dol. sli sheared, anhydrite, Fe-streaks										133.27	LC/0/70						
133.27	148.55		DOSB	BA	BX	BD	FR		29	28	PY/BM/2		BD/1/	133.27	134.27	20319	1.00	0.14	
		light to gen. v. a.gy, brecciated dol., some beds, v.f.											BD/1/	134.27	135.27	20320	1.01	0.10	
F22		laminated noted over upper 2m, almost completely												135.27	136.27	20321	1.02	0.21	
		silicified through much of the interval, relict dolomite gen. v. pale gy. in places. 147.05 to 148.55m												136.27	137.27	20322	1.05	0.10	
		breccia gen. clast-supported w/ matrix of ground rock, arg.												137.27	138.27	20323	0.96	0.07	
														138.27	139.27	20324	1.03	0.07	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
											material, graphitic in part		
											rock cut by numerous fine calcite-filled frac, often		
											restricted to almost completely silicified frag or beds		
											(tension gashes?)		
											py. dissem. in breccia matrix, becoming distinctly more		
											abundant towards base of interval, esp 146.93 to		
											148.55m.		
148.55	150.07		DOSB	4A	BX				29	26	LJ/BM/10 PY/BM/2		
											interval contained several (3 to 5) limonite rich "sand seams"		
											where no recovery, intervening rock exactly a.a.		
											with silicified dol. and some dol. frag. in a calc.		
											to arg. and carb. matrix, often w/ dissem. py.		
											(best zones may have been py-rich, which altered to limonite)		
150.07	152.94		DOSB	5A	BX				29	24	PY/BM/2		
											dolomite breccia as above 133.27 to 148.55, variably		
											silicified, w/ dk gy. cherts to lighter gy. dol.		
											cut by many, but often discontinuous calcite		
											veinlets, py in hairline frac. thru. frag. and		
											in breccia matrix, <5% of rock		

FZ?

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
139.27	140.27	20325	1.00	0.24	
140.27	141.27	20326	0.61	0.24	
141.27	142.27	20327	0.90	0.10	
142.27	143.27	20328	1.01	0.14	
143.27	144.27	20329	1.00	0.14	
144.27	145.27	20330	0.97	0.10	
145.27	146.27	20331	1.02	0.10	
146.27	147.27	20332	0.92	0.48	
147.27	148.55	20333	1.28	0.45	
148.55	150.07	20334	0.89	0.38	
150.07	151.07	20335	1.02	0.07	
151.07	152.07	20336	1.00	0.10	
152.07	152.94	20338	0.93	0.10	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
152.94	166.14		DOSB	TA	BX	CR			29	24	PY/BM/2 CE,FR LI/FR/2	154.06	BD UC/0/55	chert bed					
												154.30	BD LC/0/40						
FZ?												159.47	BD UC/0/40	chert bed					
													LC-brecciated						
												161.02	BD UC/0/40	chert bed					
												161.27	BD LC/0/28						
														152.94	153.94	20339	0.49	0.21	
														153.94	154.94	20340	0.92	0.34	
														154.94	156.35	20341	0.68	0.21	
														156.35	157.88	20342	0.29	0.24	
														157.88	158.49	20343	0.57	0.21	
														158.49	159.49	20344	1.05	0.14	
														159.49	160.49	20345	1.02	0.21	
														160.49	161.49	20346	0.93	0.14	
														161.49	162.49	20347	0.53	0.07	
														162.49	163.49	20348	0.88	0.10	
														163.49	164.49	20349	0.84	0.14	
														164.49	165.50	20350	1.01	0.07	
														165.50	166.14	20351	0.58	0.07	

fracturing and replacement of much of breccia matrix and frac. material w/ distinctly lt. tan coloured calcite w/ limonite, v. poor recovery from these altered zones, gen. appear to be where wh. chert beds,

black py. in breccia in matrix and filling hairline fracture, crackle texture

limonite zones ~153.31 to 153.73 — 161.27 to 162.89

154.59 to 158.10 — 165.50 to 166.14

158.45 to 158.49 — LI in fractures

BSDY
about 162.00 - 10 cm basalt dyke, highly vesicular, vesicles lined to filled w/ pale green clay(?) material, minor streak hematite in gen. d.gy basalt disintegrating → swelling clays

* NOTE: HIT WATER at about 162.45

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166.14	174.88		DOSB	7T	BX	CR			29	24	LI/BM/5 PY/BM/0.5			166.14	167.02	20352	0.15	0.17	
		dolomite w/ mnr. chert beds, completely brecciated clast supported, chert tends to form more competent beds, but infrequent, interval shows extensive alt. of BM to limonite+calcite w/ limonite "staining" most of rock, unaltered intervals show v.f. "dk. py" in BM.												167.02	168.55	20353	0.52	0.10	
														168.55	170.07	20354	0.08	0.07	
														170.07	171.59	20355	0.79	0.07	
														171.59	173.12	20356	0.26	0.07	
														173.12	174.88	20357	0.35	0.03	
		gen. v. poor recovery thru. altered zones, rock has disintegrated to individual fragments or clasts - gen. c. sand to pebble-sized in clay-like limonite material, v. calcareous, no relict py. found where limonite																	
174.88	175.39		BSDY	2A	MS	VS	AM		0	0		margins not measureable due to broken nature of core		174.88	175.39	20358	0.46	0.07	
		dark grey aphanitic basalt w/ numerous (10%) vesicles or vesicles filled w/ pale green clay material, highly altered to clays, v. soft, rare streaks of red to maroon hematitic-staining																	
175.39	175.75		DOSB	7T	BX	BX			29	24	LI/BM/5 PY/BM/5			175.39	175.75	20359	0.29	0.07	
almost CONTACT		brecciated dolomite, gen finely ground silicified dol. in breccia matrix limonite+calcite, lower part of interval grade to matrix as fine hair-like network of blk, py-rich fractures breccia clast supported																	

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175.75	177.22		DOSB	5A	BX	BX			29	22	PY/BM/2 LI/BM/2			175.75	176.75	20360	0.99	0.07	
											brecciated dolomite, gen. broken into sand-sized			176.75	177.22	20361	0.47	0.03	
											to some pebble-sized frag., little silicification,								
											py. (v.v.f.gr. blk. py.) along anastomosing								
											net-work which forms breccia matrix, some								
											alteration py to limonite lower 25cm of interval								
177.22	182.10		DOSB	7T	BX				29	22	LI/BM/5 PY/BM/0.5			177.22	177.69	20362	0.21	0.17	
											as above thru limonite altered zone, predom. coarse	CHANGE		177.69	179.21	20363	0.76	0.10	
											sand-sized ang. frag. dol and some silicified dol	TO BX		179.21	180.74	20364	1.16	0.10	
											or chert, in clay-like matrix of limonite and	core		180.74	182.10	20365	0.22	0.14	
											calcite, v.poor recoveries, BM washes out on	@ 181.04							
											drilling, unaltered DOSB as above, about 15% of interval								
182.10	191.41		DOSB	3A	BX	BD			28	22	PY/BM/5 LI/BM/1			182.10	183.10	20366	1.14	0.51	
											dol. m. gy. w/ streaks and patches blk., probably			183.10	184.10	20367	0.77	0.65	
											carbonaceous material, only mnr. silicification	188.28	BD/1/70	184.10	185.31	20368	0.39	0.62	
											or chert present, some bedded dol.,	? 189.80	BD/1/62	185.31	186.83	20369	0.37	0.34	
														186.83	188.36	20370	0.40	0.10	
											BM gen. sli. calcareous, variable py content to 100%			188.36	189.88	20371	0.34	0.07	
											of matrix in places, v.v.f. blk. pyrite and mnr.			189.88	191.41	20372	0.27	0.10	
											sli. coarser "yellow" pyrite								
											in part py. altered to limonite, w/ related colour								
											change to tan								

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191.41	196.22		DOSB	5T	BX				29	19	LI/BM/5		
			dolomite breccia, rock frag. coarse sand to small pebble-sized w/ matrix of limonite or limonitic clays (NOT calcareous as above). minor unaltered old. breccia w/ BM calcareous and containing v.f. cry. "black pyrite" to 7% of rock.										
			thin BSDY at about 191.43, abund hematite staining and alt. immediately adjacent to dyke → thickness and depths impossible to tell due to v. poor recovery										
196.22	197.53		DOSB	BD	RB	BX			29	24	PY/BM/10?		
			re-brecciated dolomite w/ lesser chert breccia as described about, larger frag are of DOSB in matrix of clay-like material, NOT calc. or dolomitic, matrix supported, some frags of DOSB relatively rounded, to several cm.										
			RB matrix of clays w/ abund. v.f. cry. py., dissem. and forming larger patches and blobs. up to 30% of matrix is py., also py. in matrix of DOSB fragments. interval cut by BSDY 196.43 to 196.59 and other thinner dykes										

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
191.41	192.93	20373	0.70	0.03	
192.93	194.45	20374	0.40	0.14	
194.45	195.51	20375	0.09	1.99	
195.51	196.22	20376	0.28	4.97	
196.22	196.59	20377	0.39	4.73	
196.59	197.53	20378	0.50	7.68	

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thin "cooked" margin but no hem. as noted above

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 29/95

DDH G95U6142

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
197.53	197.90		BSDY	2A	MS	AM	PO		0	0		197.53	UC/ 0/65	197.53	197.90	20379	0.36	0.07	
			ms, aphanitic basalt w/ 3-5% black pyroxene									197.90	LC/ 0/60						
			cry. as phenocrysts and vesicles filled w/																
			pale grn. clay material or white calcite as																
			approach margins of dyke, mnr. disseminated																
			py, evidence of thin gouge and slickensides at margins																
197.90	201.01		GOUG	3A	SH				29	0	PY/DS/0.5	197.92	SH/0/30	197.90	199.02	20380	1.00	0.55	
			v.d gy. gouge material containing small to									197.97	SH/0/70	199.02	200.02	20381	1.01	0.34	
			large clasts of dol, silicified dol., wh. chert, wh. ls,									198.02	SH/0/48	200.02	201.01	20382	1.00	0.17	
			MFCA and mnr. basalt, gouge strongly									198.17	SH/0/72						
			sheared and many frag. show evidence																
			of slickensides, py diss. in DOSS frag. and in gouge																
			MFCA frag become more prominent lower																
			in interval,																
			thin (1") basalt dyke at lower contact																
201.01	207.15		GOUG	5A	SH	BX			29	22	PY/DS/0.1								
			completely brecciated and ground up.											201.01	202.01	20383	0.91	0.03	
			ls. with some d. gy. chert (irregularly silicified											202.01	203.01	20384	0.97	0.03	
			ls.), possibly minor dolomite, cut by several											203.01	204.01	20385	0.81	0.10	
			BSDY ALSO COMPLETELY BRECCIATED, ~205.12 to 205.28											204.01	205.01	20386	0.70	0.03	
			and 206.64 to 207.15 m.											205.01	206.01	20387	0.53	0.14	
														206.01	207.15	20388	0.91	0.07	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: July 3/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
207.15	212.12		BOUG	5A	SH	BX			26	14			
			sheared, brecciated MFCA and some ARGI, some										
			large frag. to 25cm, interspersed w/ distinct										
			gouge zones to end of interval										
			no mineralization noted										
			minr. qtz. veinlets										
212.12	215.79		MFCA	GR	BN				0	14		212.98	BN/1/40
E.O.H.			ash tuffs, bleached and/or HE stained									213.21	VN/0/48
			cut by occassional thin qtz veinlets - to 3mm thick									213.79	BN/1/63
			HE staining thru rock in some bands, along										
			veinlet selvages and on some fractures, but										
			only v. minor										
			E.O.H.										

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
207.15	208.15	20389	1.00	0.03	
208.15	209.15	20496	0.99	0.03	
209.15	210.15	20497	0.97	0.10	
210.15	211.15	20498	0.95	0.03	
211.15	212.12	20499	0.93	0.03	
212.12	213.12	20500	1.01	0.03	

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GOLDEN BEAR OPERATING COMPANY

DATE: JULY 29, 1985

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20301	46 142	.48				
2		.21				
3		.24				
4		.24				
5		.07				
6		.14				
7		.10				
8		.55				
9		.10				
310		.21				
1		.21				
2		.99				
3		.21				
4		.14				
5		.17				
6		1.51				
7		.69				
8		.17				
9		.14				
20		.10				
1		.24				
2		.10				
3		.07				
4		.07				
20325		.24				
20337		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 30, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: R.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S
20326	UG 142	.24				
7		.10				
8		.14				
9		.14				
330		.10				
1		.10				
2		.48				
3		.45				
4		.38				
5		.07				
20336		.10				
20338		.10				
9		.21				
340		.34				
1		.21				
2		.24				
3		.21				
4		.14				
5		.21				
6		.14				
7		.07				
8		.10				
9		.14				
20350		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: JULY 30, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20351	UG 142	.07				
2		.17				
3		.10				
4		.07				
5		.07				
6		.07				
7		.03				
8		.07				
9		.07				
360		.07				
1		.03				
2		.17				
3		.10				
20364		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: Jun 31, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20365	UG 142	.14				
6		.51				
7		.65				
8		.62				
9		.34				
370		.10				
1		.07				
2		.10				
3		.03				
4		.14				
5		1.99				
6		4.97				
7		4.73				
8		7.68				
9		.07				
20380		.55				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 2/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
20381	UG 142	0.34				
82		0.17				
83		0.03				
84		0.03				
85		0.10				
86		0.03				
87		0.14				
88		0.07				
20389		0.03				
20496		0.03				
97		0.10				
98		0.03				
99		0.03				
20500	(E.O.H.)	0.03				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # 695UG143 PROJECT AREA: GRIZZLY SECTION: 23900

DRILL HOLE LOCATION DATA

EASTING: 25054.04
NORTHING: 23904.73
ELEVATION: 963.05
HOLE LENGTH (M): 42.67

DRILL DIARY

STARTING DATE: 29/07/95 (DD/MM/YYYY)
COMPLETION DATE: 01/08/95 (DD/MM/YYYY)
LOGGED BY: CMC RIG:
CONTRACTOR: Advanced CORE SIZE: NQ
SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0	271.595	-75.408	SURVEY
1				
2				
3				
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	18.40	MFCA					
18.40	39.42	MFAS	well bedded				
39.42	42.67	MFCA					
EOH							

COMMENTS:
hole was shut down early to switch drill to upper hole (+16) on this section

CHECK LIST | ASSAY REPORT | CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMF

Date: Aug 1

DDH G95UG143

PAGE 1 OF 1

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	18.40		MFCA	GT	PP	MS	FR	BX	16	14	PY/DS/0.1%/HE/ST/1%	3.70	FR/0/85°						
		altered tuffs, massive, ~~[illegible]~~ w/ ~2mm rounded clasts, locally										5.80	VN/2/40°						
		slightly sheared & foliated, bleached to a light tan or										8.20	FR/0/30°						
		green colour, veined, locally purple from hematitic										12.19	SS/0/60°						
		staining minor brecciated zone occur @ 5.40m & 16.20m										15.24	FR/0/45°						
18.40	39.42		MFAS	4G	PP	BD	VN	FR	14	12	HE/VN/1%	19.00	BD/1/60°						
		thinly bedded fine grained tuff, relatively unaltered, med-										22.86	FR/0/80°						
		dark green, local hematitic staining, calcite veining										23.40	BD/1/60°						
		throughout, pyrite present in veins ~1%, locally										27.30	FR/1/45°						
		foliated to sheared, 3 main fracture sets @ 45°, 60° &										33.25	FO/2/60°						
		80° to core axis.																	
39.42	42.67		MFCA	GT	PP	BD	FO	VN	16	24	PY/DS/2%	39.60	FR/0/45						
EOH		massive to crudely bedded altered tuffs, bleached										40.06	FR/0/75						
		& locally hematite stained, foliated &										41.65	FO/1/80						
		folded, PY present to ~3% (disseminated																	
		& in veins.																	

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ELEVATION: 955.522

HOLE LENGTH (M): 228.90

LOGGED BY: GFM RIG: Connors

CONTRACTOR: Advanced CORE SIZE: NQ

SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL		DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR		0.00	300.976, 302.5	-36	SURVEY -32.567 survey -36 Brunton
1	46.63	153'	315 302.5 (Back)	-36°	SPERRY
2	104.54	343'	304°	-36°	SPERRY
3	167.03	548'	307°	-37°	SPERRY
4	228.90	751'	—	-41°	ACID
5					

PURPOSE: exploration to north of Grizzly decline

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS
0.00	1.07	CASE	
1.07	7.97	MFFL	LJ, interbed
7.97	32.92	MFCA	thin BX to GO zone w/ much py.
32.92	41.69	ARGI	
41.69	41.88	DOLO	brecciated, py disseminated in BM
41.88	43.01	BSDY	
43.01	44.60	MFCA	
44.60	45.47	BSDY	
45.47	55.24	MFCA	
55.24	65.90	ARGI	
65.90	66.06	VNQZ	py patches, lower contact sheared
66.06	107.28	MFCA	MFFL, altered MFFP argillite interbeds
107.28	121.56	ARGI	w/ some breccia, shears
121.56	122.07	DOLO	
122.07	128.21	GOUG	dissem. py 2%, ddo
128.21	139.13	DOLO	arg, dol, targi beds,
139.13	152.53	DOCH	basalt dykes cut
152.53	152.60	LMST	50% HE-rich clay
152.60	172.78	DOCH	thin limonitic BX within
172.78	176.57	DOCH	brecciated w/ LJ matrix, v.v.f. py
176.57	177.58	BSDY	
177.58	183.40	DOCH	limonitic breccia zones (rubble)
183.40	188.15	DOCH	BX, pyritic BM
188.15	191.85	DOCH	py. on fractures
191.85	203.30	DOCH	BX to CR and fractured py; interstitial, BR
203.30	207.68	GOUG	HE and LJ sheared zones
207.68	211.35	MFCA	sheared, gouge, py in B.M.
211.35	213.74	DOCH	breccia, gouge
213.74	214.88	MFCA	
214.88	222.82	HLBX	
222.82	228.89	MFCA	

COMMENTS:
reduce NQ to BQ at SBSF1 (178.30m),

CHECK LIST ASSAY REPORT CORE PHOTOS

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug/95

DDH 95U6144

PAGE 1 OF ___

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	1.07		CASE																
1.07	7.23		MFEL	3G	BDS	BD			0	0	PY/OS/0.2/HE/VN/2	2.00	VN/0/30 OOL+HE						
			gen. ms., m. cry mafic flows w/ variable oxidation and HE staining (flow tops?), some evid of banding or flow contact w/ HE-rich, sli fractured zone overlain by aphanitic flow material (chill margin) grading over 10 to 20 cm. to ms. crystalline flow									2.15	BD/6/45			flow contact			
												6.12	CV/0/50						
												7.11	CV/0/20						
			cut by dol±HE veinlets and by occ. calcite veinlets																
7.23	7.45		LMST	3A	ms				0	0	PY/PT/5/HE/FR/0.1	7.23	LC/0/10						
			ms. calcite ± w/ mnr. dolomitization and mnr. qtz., gen med to c. crystalline, thin (≤1 cm) selvage of v.f. cry and some evid of dk grn minerals of flow(?) or calc-silicates contains several large (to 4 cm patches ms. but f. to m. dry py, cross-cut by veinlet of dol. + silica ("chert")									7.45	LC/0/30						

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probably lenses or large frag. of ls. may have been included in flow when

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug 1/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
7.45	7.97		MFFL	3G	MS				0	0	no py noted/HE/FR/0.1	7.50	DN/0/80						
		gen. m.cry. ms flow, w/ some grading to aphanitic, some evidence of flow-banding or alignment of long axes of feldspar crystals near lower contact. mnr. calc ± HE veinlets and, qtz + calc. veinlets										7.62	CV/0/32						
7.97	10.80		MFCA	7G	MS	BN			0	12	PY/PT/0.1/HE/IN FR/0.1	10.16	VN/0/30						
		bleached, carbonate altered and, in one area, HE stained lapillituff w/ some MFFL as noted above w/ mnr. altered ash tuff "interbeds", some areas matrix to lapilli HE rich, cut by a few DOL + HE veinlets, mnr. py as specks and patches																	
10.80	23.11		MFCA	8A	BN	BX	SK		22	24	PY/DS/5/HE, 1 steak FU/BN/2			11.01	11.74	20901	0.65	0.07	
		v. finely to med. banded, carbonatized and completely bleach ash tuffs, and some lapilli tuffs												12.80	13.50	20902	0.72	0.03	
fault 1		11.01 to 11.75 and 12.80 to 13.50 breccia to gouge zone, d.gy. sheared MFCA, abund v.v.f. to m.cry. py. dissem thru gouge										15.34	BN/0/65						
												16.37	FR/0/43						
												22.26	BN/0/50						
		py. abund. thru interval, gen f.cry. dissem in some units seen to conc. along some bands. FU dissem. thru some bands giving brt grn colour, also along frac as at 16.37, band adj. to v. siliceous zone (chert bed?) ~19.80-20.47 m																	

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NORTH AMERICAN METALS CORP Logged by: GFM
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Date: Aug 2/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
23.11	32.92		MFGA	5A	BD	BN	BX		22	24	PY 10 5 12	25.00	BD/0/45						
			carbonatized ash tuffs and epiclastic rocks, interbedded w/ argillite, arg. v15 to 20% of interval, in part intimately mixed on mm scale w/ ash deposits, gen. v. finely laminated or banded, cut by occasional qtz, qtz-carb, or							26.69	BD/0/52						
			dol. veinlets max. 1 cm wide							29.87	BD/0/30						
			interval relatively pyrite-rich w/ dissemination thru. vol. and esp. concentrated along the arg. laminae, only mnr. py ass. w/ veinlets, gen. along selvages, py rich band at apparent flow top							31.58	BN/0/50						
										30.35	BD/0/20						
										30.36	QV/0/50						
										32.05	SH/0/0						
			at 31.58 m, some banded graded ash → arg							32.24	BD/0/30						
			thin BSD4 at 26.83 m																
			thin breccia at 28.05 to 28.11, sheared MFGA+ARGI											31.90	32.25	20903	0.55	0.03	
			gen foliation to shear along bedding planes 31.90 to 32.23 m shear sub-// core axis, py+qtz																
32.92	41.69		ARGI	2A	BD				22	0	PY/BN/1	PY/BN/0.1							
			rock types gen. as above but argillite now ~90% of interval w/ only mnr. beds and laminae of bleached, altered ash tuff, mnr. crystal tuffs							33.30	BD/0/27								
										35.90	BD/0/45								
			cut by thin qtz or qtz+dol. veinlets, in part // to bedding and forming qtz augen along bedding																

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LITHOLOGY LOGGING SHEET

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
					breccia zone w/ distinctly matrix supported arg clasts in BM of dol w some qtz at 34.55 to 34.70, 37.42 to 37.63 gen rare py, dissem, exact breccia zone v.py-rich, thin broken and cemented by bands in groundup MFCA matrix			37.42	37.69	20904	0.35	0.38	
41.69	41.88		DSBX (DOLO)	ZA	SH	BX			29	22	PY/BM/2 (HEL BM/0.1 FU BM/tr)	41.76	SH/0/45						
			lt-gy dol. frag, v. fine to ~1cm in matrix of sheared and crushed dol+arg+MFCA as v. thin streaks or slivers, mnr. calcite veining, py dissem. thru BM, plus mnr. HE + FU in matrix																
41.88	43.01		BSDY	N	ms	AM	PP		0	0	—	41.88	UC/0/50						
			basalt dyke, v.f.cry. to microcry w/ coarser phenocrysts mafic minerals, in part altered to epidote, vesicles filled w/ wh calc. or blue-grn clays, upper contact shows 10-15mm chilled margin, lower contact v. irreg, wallrock inclusions									43.01	LC/0/15						
43.01	44.60		MFCA	5A	BX	BN			24	19	PY/DS/0.5								
			mafic ash tuffs, altered and bleached some banding still evident, somewhat brecciated into gen. large frag, with only v.mnr. BM, or fractures filled w/ clays, py, mnr. calcite narrow BSDY (6cm) within interval.																

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NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
44.60	45.47		BSDY	N	MS	AM	PD												
		as above, but contains several large inclusions of country rock (MFCA), contacts irreg, adjacent MFCA fractured																	
45.47	55.24		MFCA	5A	BN				0	19	PY/OS/0.1 FU/BN/0.1	49.74 53.38 54.18 55.24	BN/0/35 QV/0/10 BN/0/35 LC/0/18						
		carbonatized and bleached ash and lapilli tuffs, w/ argillite interbeds 4cm to 0.75m thick making up about 25% of interval, scattered qtz veins and augen along bedding/banding in both rock types also mnr. dol. veining																	
55.24	65.90		ARGT	1A	BD				24	19	PY/BM/5			58.00	59.10	20905	0.89	0.48	
		gen. dgy argillite w/ interbeds of ash material (MFCA) on mm scale to beds of about 35cm, several zones of intimately mixed arg. and ash ⇒ epiclastic deposits, thicker beds more massive ash and/or crystal tuff																	
		some small cross-cutting qtz veins and augen as noted previously, also thin dol. veinlets which cut qtz veinlets breccia and/or shear zone 58.36 to 59.09 m (sample) highly contorted, sheared and fractured arg																	

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NORTH AMERICAN METALS CORP Logged by: GFM DDH GASUG144
LITHOLOGY LOGGING SHEET
Date: Aug 25 PAGE 6 OF

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											beds, w/ zone of "tension gashes" and qtz veins in more competent layers, interval v. py. rich w/ ~25% of matrix py								
65.90	66.06		VNQz	9A	..				12	0	PY/PT/0.5								
											qtz vein w/ irreg. boundaries and containing slivers and smears of MFCA wallrock material, py as irreg. patches typ. pyrite esp. along lower contact, lower contact w/ MFCA and argillite, fracture and sheared								
											over zone about 13cm wide								
66.06	74.62		MFCA	SA	BD	BN			12	19	PY/DS/1	66.06	SH/0/30						
											interval almost entirely well banded / bedded ash tuffs and probably epiclastics w/ mnr. (<5% of interval a.gy. argillites, in part as thin laminae in tuffs (⇒ epiclastic)								
											mnr. evidence of folding, microfaults over 10 cm zones, but gen. even banding, also shear zone at top of interval as noted above								

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											pyrite as v. fine disseminations thru interval, only 1-2% of rock.	69.21	BD/0/40						
											fuchsite developed thru several thin bands near top of interval	70.73	BD/0/30						
												72.20	BD/0/35						
74.62	75.41		ARGI	2A	BD						PY/DS/0.5	75.00	BD/0/50						
											thinly laminated to med. bedded argillite to siltstone w/ minor laminae of ash or ash-rich argillite, silt-sized particles largely tuff rock frags (epiclastic? or reworked tuffs?), minor dol veinlets, py thru esp. ass. w/ v. arg. + poss. carbonaceous laminae.	75.18	BD/0/50						
75.41	77.77		MFCA	AR	BN	BD			0	19	PY/DS/SI/HE/DN/1	76.59	BD/0/30						
											ash tuffs and minor crystal tuff, completely bleached and over lower half of interval increasingly HE stained, intervalcut by scattered thin (1-4mm) veinlets of dol, rare calc. veinlets, where HE stned also some hairline HE filled frac., v. minor py as scattered patches and disseminations.	76.70	DN/0/55						
												77.49	VN/0/40	← HE + Dol.					
												77.52	DN/0/63						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
77.77	79.44		MFFL	4G	MS	FR			12	12	PY/DS/0.1/HE/FR/1	77.77	UC/0/70	← sharp					
		massive vol. flow w/ some fragmental texture at top										77.97	CV/0/60						
		of interval (flowtop?) gen aphanitic groundmass w/										78.41	CV/0/65	← HE + calcite					
		patches epidote alteration - brt. grn, irreg. distribution																	
		cut by scattered calcite veinlets and also some										78.61	VN/0/15	← HE "splay of frac.					
		carbonatization of massive rock, also cut by																	
		open network hairline HE-filled fracture										79.18	QC/0/65						
79.44	82.97		MFCA	5G	MS	SK			14	14	HE/FR/UN/2	79.49	QC/0/30	79.44	80.44	20906	1.06	<0.03	
		lt. and d. grn. mafic flows variably bleached,										79.53	CV/0/40						
		carbonatized and epidotized, cut by numerous										81.60	CV/0/78	+HE					
		fractures and veinlets predom calcite ± hematite										81.49	CV/0/45	+HE					
		to local stockworks, esp. 79.76 to 80.15m (sample)										82.58	VN/0/40	HE veinlet					
		py. v. rare, HE in "stockwork" other frac/veinlets and																	
		within and esp. as selvages to calcite and																	
		qtz-carb. veins																	

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82.97	105.92		MFFL	3G	MS	PP	BN		Q	12	HE/PY/DS/0.5 FR/05	83.18	EW/0/70						
		sect. predom ms flows, variably but gen. weakly										86.72	BN/0/55	ash bed top					
		carbonitized and epidotized, some ash flow (MFCA)										87.81	BN/0/30	ash beds					
		interbeds, completely bleached and altered as seen above										88.22	BN/0/58	flow top?					
		flowtops marked by fragmental zone, gen. w/																	
		ass. HE-filled fractures, often qtz-carb. vein,										92.73	QD/0/15	← Qtz-dol. vein at flow top					
												93.27	DN/0/55						
		and some evidence of mnr. shearing, some flowtops										93.46	SH/0/32	← near flow top					
		outlined by ash deposits, flows appear to be 0.75 to										94.55	BN/0/25	← flow top?					
		3.75 m thick																	
		HE filled fractures and HE selvages on calcite																	
		veinlets only mineralization noted, scattered disseminated py, not abundant																	
105.92	107.28		MFCA	6A	MS	FO					PY/PT/2								
		massive crystal and/or lapilli tuff, faint foliation										106.18	FO/0/45	105.92	107.28	20907	1.28	0.03	
		evident (but not banded/bedded) grades to less										106.33	QV/0/35						
		altered or bleached rock in centre of interval, a										106.64	QV/0/37						
		qtz+dol or dol. veinlets cross-cut foliation,										106.87	FO/0/42						
		py as distinctive patches to 1cm diameter																	
107.28	107.87		ARGI	2A	BX				26	12	PY/DS/2	107.49	SH/0/50	107.28	107.87	20908	0.54	0.03	
		argillite, carbonaceous and gen. silty, sli										107.80	SH/0/45						
		dolomitic										107.87	SH/0/65						
		bx zone w/ breccia matrix qtz + finely ground																	
		rock, some shearing esp. along carbonaceous																	
		or graphitic laminae																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											qtz matrix or vein also fractured and rehealed py. as disseminations esp along carb. laminae and also as selvages to qtz. matrix								
107.85	113.09		ARGI	BA	BD	SX			14	24	PY/DS/2			112.09	113.09	20909	0.99	0.03	
											carbonaceous, dolomitic, frequently silty and apparently rich in mafic clasts or ash ⇒ in part epiclastic altered ash tuff (MFCA), thin interbeds and lenses of MFCA qtz and qtz-carb veinlets throughout w/ some thin	108.92 108.95 111.64	SH/0/15 BD/0/52 SH/0/40 BD/0/40						
											intervals stockwork developed (i.e. 110.64 to 111.20m) esp where rock somewhat silicified py diss both silty and shaley sections relatively abund. ~2%	113.00	BD/0/38 SH/0/38						
113.09	113.27		ARGI	BA	BX				29		PY/BM/1	113.27	SS SH/0/40	113.09	113.27	20910	0.18	0.03	
											v. carbonaceous interval, thin breccia developed w/ much qtz+dol vein or matrix material ⇒ approx 30% of interval, f.cry. py. patches in frac. in vein material and at margins and possible v.v.f.gr "black" pyrite also along frac. or shears								

relatively py-rich carb. and/or epiclastics

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margin sheared and stretched graphitic laminae

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
113.27	119.77		ARGI	2A	BO	MS	BX		26	22	PY/DS/05	114.38	SH/0/30	113.27	114.27	20911	1.00	0.03	
			d.gy arg w/ carb. streaks and laminae, massive to finely laminated, under max. magnification, variably brecciated and cut by numerous hairline frac. calcite-filled, breccia matrix grn. calcite + ground rock, some v. hot brecciated and fractured thru interval, some beds silicified, some v. silty py. dissem. thru., often along bedding planes 114.52-114.87 distinct breccia/gauge zone	115.32	BD/3/40	114.27	115.27	20912	0.94	0.07	
												119.39	BD/1/52						
119.77	121.42		ARGI	2A	SH	BD			24	12	PY/DS/5	120.00	SH/0/43	119.77	121.42	20913	1.65	0.07	
											finely interbedded dolomitic shales and arg. siltstones, some carbonaceous laminae distinctly foliated to sheared appearance with foliation // bedding, irreg. veinlets and augen of dolomite noted, py. dissem. and concentrated in patches along bedding planes	120.76	SH/0/50 BD/0/50						
												121.12	SH/0/35						
												121.12	BD/0/65						
121.42	121.56		ARGI	2A	BX				24	0	PY/DS/05			121.42	121.56	20914	0.17	0.03	
											thin breccia w/ frag. argillite as seen in units above and some dolomite as seen below, limey matrix. mnr. disseminated py., predom. in matrix (zone rubbley, poor recovery)								

(ARGI) dolomitic shale/siltstone

FAULT? 114.52 to 114.87

← gauge zone

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121.56	122.07		DOLO	3A	MS	CR			12	12		121.76	CV/0/45	121.56	122.07	20915	0.49	0.10	
											gray, argillaceous, v.f.cry. dolomite, laminations discontinuous, visible on microscopic scale, crackled w/ mnr. thin (to 3mm) veinlets of calcite	121.91	BD/0/35						
											v.mnr. dissem. py								
122.07	126.16		GOUG	2A	SH				29		PY/DS/?			122.07	123.07	20916	0.99	0.03	
											gouge zone w/ some areas only strongly bleached w/ less evidence of shearing predominantly dolomitic shale, w/ some carbonaceous bands but lesser amounts arg dol. as seen above, one large 15cm dolomite "clast"			123.07	124.07	20917	1.05	0.14	
														124.07	125.07	20918	0.98	0.03	
														125.07	126.16	20919	1.07	0.03	
											py as dissem. and patches "brassy" py in gouge and mnr. dissem. py. in fragments								
											calcite filled frac. and gashes, esp in breccia zones or fractured frag. within gouge								
126.16	126.73		DOLO	3A	SK	BD			16	18	PY/DS/0.5	126.54	BD/0/62	126.16	126.73	20920	0.54	0.03	
											v.f.cry dol. w/ abund arg. material, gen.	126.58	BD/0/70						
											finely laminated but laminae, in part, outlined by thin calcite veinlets || or sub-|| to bedding (maybe very limestone laminae → not dolomitized), some evidence fright micro-folds	126.70	CV/0/35						
											veinlets fabund enough to produce poorly developed stockwork.								

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126.73	127.21		GOU	3A	SH				29	16	PY/DS/5			126.73	127.21	20921	0.61	0.03	
			gouge or highly brecciated zone contained sheared argillite and carbonaceous material, argillaceous dolomite and bleached and carbonatized mafic vol., vol. fragments py-rich, to 10% py.																
			disseм. thru the rock, mnr. py disseм. thru gouge																
127.21	127.35		ARGI	2A	SH				12	12	PY/DS/0.5	127.21	UC/0/80	no sample					
			relatively massive dolomitic shale, py disseм as tiny specks thru, and esp conc. along hairline fractures, graphitic coatings of occassional (and kinked) shears									127.24	BD/0/65						
127.35	129.10		DOL	4A	BD	VN	SH		12	16	PY/DS/0.5	127.35	UC/0/75	127.35	128.35	20922	1.03	0.03	
			a.gy. arg. dol. w/ less laminae to dolomitic argillite, faintly laminated, cut by f. to m. cry. dolomite veinlets often sub-parallel to bedding, py disseм. to small patches often conc. along veinlets or ll micro-fractures									127.60	BN/0/48	128.35	129.10	20923	0.73	0.03	
												127.78	BD/0/50						

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129.87 to 128.87m

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129.10	137.22		DOSB	39	BX	SH			28	24	PY/BM/0.5			129.10	130.10	20924	0.97	0.07	
		dolomite, gen. finely laminated, argillaceous to some carbonaceous and some silty bands, variably silicified w/ mnr. patches completely silicified esp. in areas of abund veinlets (Stockworks), completely brecciated										130.53	GO/0/30	130.10	131.10	20925	0.99	0.03	
												131.86	BD/0/23	131.10	132.10	20926	0.98	0.03	
												131.90	SH/0/60	132.10	133.10	20927	1.02	0.10	
												133.81	CV/0/32	133.10	134.10	20928	1.03	0.03	
												134.06	GO SH/0/45	134.10	135.10	20929	0.93	0.07	
												135.88	SH/0/22	135.10	136.10	20930	1.03	0.07	
		with some large frag to 10 cm of interval only crackled and fractured, many zones where gouge (completely ground up rock material developed), all gradations gouge to crackle present										135.95	DI/0/54	136.10	137.22	20931	1.12	0.03	
		cut by several zones abund fractures or patches where abund vein material, predom. calcite w/ thicker veins (to several cm) gen dolomitic																	
		py dissem, thru gouge or along shears/fractures																	
137.22	137.62		ARGI	29	MS	SX			14	24	PY/OS/0.1	137.62	LC/0/40	137.22	137.62	20932	0.40	0.10	
		ms, smooth, moderately silicified, dolomitic shale w/ some carbonaceous material, poorly developed stockwork and micro fractures calcite lined, faint laminations under microscope, v. mnr. py as dissemminations																	

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lower contact exhibits some brecciation but relatively sharp.

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137.62	139.13		DOB	3A	BX	SH			28	24	PY/DS/RARE			137.62	139.13	20933	1.48	0.10	
			dolomite, argillaceous to dd shale, distinctly carbonaceous material at base of interval where completely sheared + gouge developed, many irreg, fractured and discontinuous veinlets of white calcite, also network micro-fractures calcite-lined,																
			section becomes shalier towards base which is carbonaceous, brecciation increases downward to thin (2-3 cm) gouge zone at contact																
139.13	150.16		DOH	SA	CR	MS	BX	VG	16	24	PY/DS/TR	LJ/FR/10.1 HE/FR/01		139.13	140.13	20934	1.02	0.45	
			medium gray ms, but crackled dolomite w/ irregular d.gy chert patches replacing (?) or infilling dolomite, crackle well-developed network of micro-fractures gen. calcite-lined, vuggy ϕ developed along fractures											140.13	141.13	20935	0.94	0.14	
														141.13	142.13	20936	0.88	0.24	
														142.13	143.13	20937	1.02	0.17	
														143.13	144.13	20938	1.01	0.17	
														144.13	145.13	20939	0.98	0.07	
														145.13	146.13	20940	0.99	0.03	
			becomes somewhat brecciated in places where "crackle" more severe and some movement of fragments, esp. ~146.00 to E.O.I.											146.13	147.13	20941	0.71	0.07	
														147.13	148.13	20942	0.89	0.07	
														148.13	149.13	20943	1.00	0.03	
			rare limonitic and hematitic staining along fractures as approach basalt/dyke (next interval)											149.13	150.16	20944	1.01	0.03	

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150.16	151.78		BSDY	1A	AM	PP	MS		0	0	—	150.16	UC/0/53	150.16	151.78	20945	1.60	0.03	
		ms. basalt dyke, distinctly amyg dalordal w/ vesicles calcite filled, slightly porphyritic, phenocrysts dark mineral probably augite, basalt rapidly altering to clays, swells and disintegrates when washed										151.78	UC/0/40						
151.78	152.53		DOCH	4A	CB				14	24	—			151.78	152.53	20946	0.72	0.03	
		modgy dolomite, distinctly crackled and gen. silicified, cut by calcite veins and veinlets, large vug lined w/ calcite crystals (pretty pale green colour), thin zone (2 cm) abund. epidote, development of calcite + HE at upper contact w/ basalt, thin BSDY (~6cm) within interval																	
152.53	152.60		LMST	5R	MS				0	0	HE/IN/50	152.53	UC/0/70	152.53	152.60	20947	0.07	0.38	
Hematite zone		thin limestone unit adjacent to dyklet (2cm) BSDY, completely hematitic, rare silt to sand sized frag, ~50% red clay-like material, ms, no apparent bedding structure or other mineralization										152.60	UC/0/40						

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152.60	153.03		DOCH	4A	CR				14	22	HE/IN/ LI/IN	152.60	BX/0/40	152.60	153.03	20948	0.41	0.03	
		dolomite as seen above, crackle texture w/ fine calcite veinlets or fracture-linings, HE and LI staining along some frac and through rock over lower part of interval along increasingly fine network of frac. producing "crackle" texture																	
		thin BSDX at upper contact and also one thin dyke (1-2cm) within interval																	
153.03	153.66		DOLO	4R	BX	BX			29	19	LI/BM/30			153.03	153.66	20949	0.29	0.24	
Brecciated Limonitic Zone		breccia zone w/ dol, chert, angular frag., gen silt to f. sand-sized to some 5cm clasts, matrix supported, matrix of calcite plus limonite making up 30-40% of the rock, many clasts heavily HE stained - gen. the																	
		larger clasts																	
		rubbly, poorly consolidated interval, contacts w/ DOCH v. rough.																	

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153.66	155.81		DOLH	G4	BX	CR	SK		28	19	LI/FR/1			153.66	154.66	20950	0.98	0.07	
		dolomite, originally m-dgy w/dgy chert patches, somewhat brecciated or crackled and veined where less structural intensity, cut by numerous calc. veinlets to fine stockwork thru much of interval, much limonite ass. w/ calcite										153.86	CV/0/83	154.66	155.81	20951	1.13	0.03	
												154.98	FR/0/90						
												155.14	FR/0/40						
		through much of interval, thicker zones clay-like limonitic alteration along and adj. to cross-cutting fractures, i.e. 154.98, 155.14, alteration decreases away from breccia zone above.																	
155.81	164.78		DOLH	4A	SK	CR			24	22	HE/FR/0.1 LI/FR/0.1 (<10% of interval)	159.49	EV/0/45	155.81	156.81	20952	0.97	0.10	
		dolomite, m-dgy w/ patches clear-gy. chert, crackle to stockwork w/ veinlets of white calcite, to brecciated w/ some local rotation of clasts and infilling w/ calc. to dolomitic matrix, mor. HE, LI staining along frac. (rare), irreg patch light gy clot.										157.97	FR/0/75 LI stain	156.81	157.81	20953	1.02	0.10	
														157.81	158.81	20954	0.99	0.10	
														158.81	159.81	20955	0.94	0.03	
														159.81	160.81	20956	1.03	0.10	
														160.81	161.81	20957	0.99	0.10	
														161.81	162.81	20958	1.03	0.24	
		towards base of interval (cleaner?, less argillaceous?)												162.81	163.81	20959	0.97	0.07	
														163.81	164.78	20960	0.96	0.03	

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164.78	172.78		DOCH	7A	CR				14	22	PY/FR/0.5		
		lt gy dolomite w/ distinctly mottled crackled appearance and minor irreg patches darker gy. chert (<5% of interval) minor vf fine cry py. along some frac. and stylolites (as calc. veining or frac. filling as seen above)											
172.78	173.51		DOCH	7A	BX				29	22	LI/BM/5-10		
Brecciated Limonitic Zone.		v. pale dolomite and lt gy chert (minor) brecciated into coarse to fine sand-sized fragments matrix of calcareous limonite possibly making up about 20 to 30% of interval - some lost core - maybe more limonitic, gradational contacts w/ DOCH above and below											
173.51	174.90		DOCH	5A	CR	FR			16	22	PY/FR/2		
PY.		pale gy dolomite and large patch w/ irreg. contacts d. gy. dol., 1st pale gy. dol. exactly as above 164.78 to 172.78, sli. silicified, no calcite along frac. d. gy limestone (locally arg. and calcareous with dolomitic)											

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
164.78	165.78	20961	1.01	0.03	
165.78	166.78	20962	1.03	0.03	
166.78	167.78	20963	0.96	<0.03	
167.78	168.78	20964	1.02	<0.03	
168.78	169.78	20965	0.95	<0.03	
169.78	170.78	20966	0.99	<0.03	
170.78	171.78	20967	1.01	<0.03	
171.78	172.78	20968	0.99	0.03	
172.78	173.51	20969	0.56	0.03	
173.51	174.90	20970	1.42	0.03	

NORTH AMERICAN METALS CORP Logged by: GFM DDH G95UG144
LITHOLOGY LOGGING SHEET
Date: Aug 5/95 PAGE 20 OF ___

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											calcite along crackle fractures, relatively abundant v.v.f. "black" pyrite and some sli coarser brassy py. along crackle pattern in d.gy. ls → causes gy-colour in part, py. selvages to patchy dol. ls. and along fracs lower part of interval								
174.90	176.57		DOCH	RY	BX				26	10	LI/BX/10			174.90	176.17	20971	1.09	0.07	
Brecciated Limonitic Zone											pink to pale yellow dolomite breccia exactly as seen above 172.78 to 173.51 original dol. pale gy, gen. mod. silicified, ground up to fine to coarse sand-sized fragments NOT calcareous, matrix dolomitic + limonite, cut by			(E.O. box) 176.17	176.57	20972	0.41	0.03	
											dol. veinlet which contains breccia fragments, breccia matrix gen 20-30% of rock (i.e. clast-supported)								
176.57	177.58		BSDY	N	AN	MS	PP		0	0	—	176.57	VC/0/60						
											basalt dyke w/ distinctive wh. calcite-filled vesicles, more common near margins than centre of dyke, 3 cm wide zone highly altered (to light coloured clays) at margin, limonite rich zone ~1cm in d.gy. dol.								

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug 6/95

DDH 95U6144

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
177.58	178.30		DOCH	RY	BX	CR			26	18	HE/BM/5 LI/BM/10			177.58	178.30	20973	0.39	0.03	
Limonitic Breccia			red to yellow due to abund. hematite and/or limonite in matrix of dolomite w/ extensive crackle to breccia texture, some unstained intervals, but section broken up and much core missing																
178.30	178.72		DOCH	7A	CR				14	22	PY/FR/0.5			178.30	178.72	20974	0.43	0.03	
			vlt. gy. to darker gy. dol. where sli. arg., v. minr. irreg. patches d. gy. chert developed (<5% of interval), mottled appearance poorly developed crackle text., minor v.v.f ("black") pyrite along discontinuous micro-fractures																
			thin (2-3cm) gouge or basalt dyklet at top of interval → only a few slivers of d. gy clay material recovered																
178.72	179.14		DOCH	54	BX	BX			29	19	LI/BM/15			178.72	179.14	20975	0.20	0.10	
Limonitic Breccia.			limonitic breccia ("sand") to crackled lt. gy dol., limonite forms matrix to breccia possibly w/ minr. calc. material, but interval v. poor recovery, just minr. rubble sand to pebble-sized frag																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
179.14	182.31		DOLH	7A	CR				26	24	PY/FR/0.5			179.14	180.14	20976	0.96	0.03	
		lt. to d gy dol., mottled appearance due to variable clay content, gen crackled but not well developed, one area appears large angular frag. wh. dol. in med gy dol. ⇒ prob. due to primary fragmental nature of rock, not due to brecciation (structural)												180.14	181.14	20977	0.98	0.10	
														181.14	182.31	20978	1.18	0.17	
		mnr. py along discontinuous, sometimes stylolitic microfractures, a few breccia zones w/ no ass'd minerals within interval (thin, to 5cm)																	
182.31	183.40		DOLH	5A	CR				26	28	PY/FR/0.5			182.31	183.40	20979	1.08	0.17	
		v.lt. to d.gy. dol w/ much m. gy chert (~30% of interval) variably arg, but gen. more arg. than above, minor evidence of brecciation and rehealing where "crackle" more intense mnr. py along microfrac/stylolites as above																	
183.40	184.11		DOLH	3B	BX	FO			29	24	PY/BM/3	183.92 ?	FO/0/55 ↑ graphitic	183.40	184.11	20980	0.6	0.14	
BX		dol and some chert, gen. finely ground to sand-size frag. but some coarser slivers, hard, competent rock ⇒ cemented w/ dol., BM contains irreg. streaks arg and carb material and vv f. cry. pyrite, foliated text., and rare graphitic shears											SH/0/52						

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug 6/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
184.11	186.31		DOCH	7A	CR	SK			16	24	PY/FR/0.5			184.11	185.11	20981	1.04	0.75	
		lt. gy. dol. w/ patches m. gy. chert, and mottled												185.11	186.31	20982	1.15	1.03	
		appearance due to variable arg. material,																	
		crackled w/ crackle outlined by hairlike																	
		blk. fractures, intensity of frac. inc to devel.																	
		of v. fine stockwork, esp. 184.36 to 184.74m																	
		frac. filling in part v.f. py., plus arg and																	
		carbonaceous material																	
186.31	188.15		DOCH	5A	BX				29	22	PY/DS/2			186.31	187.23	20983	0.94	0.96	
		lt. to d. gy. clasts of dol and mnr. m. gy. to d. gy chert												187.23	188.15	20984	0.92	4.08	0.51
		in dolomitic matrix, matrix supported,																	
		well-cemented competent rock, clasts silt to 5cm in size, randomly mixed, (speckled rock)																	
		py. as above along some microfractures																	
		and diss. thru darker gy. matrix																	
188.15	191.85		DOCH	7A					26	24	PY/FR/2			188.15	189.15	20985	0.99	1.82	
		lt. gy. dol. w/ irreg. patches to 0.4m of d. gy dol.												189.15	190.15	20986	0.98	0.86	
		(brecciated), making up ~25% of interval,												190.15	191.15	20987	1.01	4.18	0.26
		lt. gy dol. ms. dol. w/ mnr. wh. chert as												191.15	191.85	20988	0.67	2.95	
		little, irreg distributed patches of intense																	
		silicification, crackle text. w/ some																	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug 6/95.

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											microfractures containing v.v.f. pyrite and mnr. arg. material, d.gy. clot patches, more argillaceous and gen. moderately silicified, cracking more intense to mnr. brecciated zones, crackle	191.55	FR/0/45						
											frac. gen. dolomite filled w/ mnr. pyrite as above, one cross-cutting frac. w/ abund. v.f. py as aperussive alteration of wallrocks ~2mm into dol. at 191.55m	↑ py halo of wallrock							
191.85	194.56 (194.45 box end)		DOCH	2A	CR	BX	V6		28	22	P4/FR/5 intensely dgy dol. w/ a.gy. chert patches, crackled to brecciated and cemented w/ dolomite, dark colour of dol. principally due to dissem. v.v.f. "black" pyrite along fractures of crackle pattern and brecciation,			191.85	192.85	20989	1.04	3.77	0.28
														192.85	193.85	20990	0.96	4.77	0.37
														193.85	194.45	20991	0.61	6.96	0.38
														194.45	194.56	20992	0.11	2.40	
											distinctly increased amount of py. from preceding intervals								
											vugs developed thru interval								

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

DDH 95U6144

Date: Aug 6/95

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
194.56	197.44		DOCH	1A	BX	VG			29	24	PY/IN/5%			194.56	195.56	22093	0.99	3.50	0.40
			d.gy dol. and blk. chert frag., gen. coarse sand-sized, to several cm, dol. matrix dark colour in dol. primarily due to v.f. cry. py along fractures, within and outwind frags., also some arg. material											195.56	196.56	22094	0.95	3.26	0.41
														196.56	197.44	22095	0.74	5.01	0.84
			thin limonitic and broken zone at 195.96 to 196.04m -> appears to be same breccia material but altered by fractures + water passage																
197.44	198.63		DOCH	7A	CR	SK			26	22	PY/SK/2%			197.44	198.63	22096	1.18	4.05	0.50
			lighter gy dol. w/ distinctive network or stockwork of hairlike veinlets which appear black due to presence of v.f. pyrite, some zones to a gy where increasing py. in crackle and breccia matrix																
198.63	203.30		DOCH	8A	BX				29	22	PY/IN/5%			198.63	199.63	22097	1.02	5.23	0.31
			d.gy dol and blk. chert frag, frequently sand-sized frag w/ only scattered pebble-sized frag, esp of chert, matrix supported, py. as v.v.f. gr. streaks in frac. and along grain boundaries											199.63	200.63	22101	0.93	10.42	0.50
														200.63	201.63	22102	1.00	5.04	0.39
														201.63	202.50	22103	0.75	0.34	
														202.50	203.30	22104	0.77	1.23	
			Fault																

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date:

DDH 695 U6 144

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
203.30	205.24		GOUG	1A	SH	BX			29	O	HE/BM/10			203.30	204.30	22105	0.75	0.51	
			interval alternating zones of d.gy mud and brt.red hematite-rich mud w/ scattered breccia fragments											204.30	205.24	22106	0.87	0.82	
Fault			HE-zones: 203.88 – 204.12 m																
			204.30 – 204.57, 204.70 – 205.13, 205.19 to 205.24 m																
205.24	207.68		GOUG	N,Y	SH				29	O	LI/BM/10			205.24	206.44	22107	1.07	4.46	0.10
			black and brt yellow limonite-stained clays → ground rock fault gouge to some totally limonite-stained dol breccia											206.44	207.68	22108	0.64	6.55	1.12
Fault.			thin interval 206.64 to 206.84 m-d.gy dol. sheared, but not ground to rock																
			flow																
209.68	211.35		MFCA	7A	SH	BX			29	19	PY/BM/5%	208.20	SH/0/40	209.68	208.70	22109	1.90	0.10	
			d.gy clay-like fault gouge material w/ slivers and fragments of altered and bleached mafic ash tuffs, altered in part to swelling clays. fault gouge contains abundant py									210.03	SH/0/45	208.70	209.70	22110	0.99	0.03	
Fault														209.70	210.70	22111	0.85	0.03	
														210.70	211.35	22112	0.61	0.03	

NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date:

DDH 695U6144

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
		as v.v.f. "black" py. and sli. larger brassy crystals.																	
211.35	211.69		LMST	W	CR	SK			14	24	PY/SK/1			211.35	211.69	22113	0.59	0.17	
		white limestone, variably silicified but gen. hard, fine, relatively open network of hairline fractures and stylolites, in part lined w/ v.v.f. pyrite																	
211.69	213.74		DOCH	3A	BX	GO			29	22	PY/BM/5			211.69	212.69	22114	0.63	0.03	
		lt gy. to peach and m gy. dol. as breccia zones to zones where abund d.gy												212.69	213.65	22115	0.63	0.03	
Fault		fault gouge w/ only mnr. (~30% dol frags) gouge 211.69 to 211.80 and 211.97 to 212.58m												213.65	213.74	22116	0.07	0.03	
		py as v.v.f. cry dissem in relative abundance thru matrix and also in crackle text and along frag. boundaries in breccia and larger fragments																	

rec. = 173 lb ??

small sample next shift

sample to end of box, end of shift

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: GFM

Date: Aug 7/95

DDH B95CG144

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
213.74	214.88		MFCA	ZA	SH	CR			26	19	PY/GO/0.5			213.74	214.88	22117	1.14	0.07	
		wedge or sliver of altered vol. within Footwall Fault zone, relatively ms. only cut by occasional thin shears																	
		pinkish to gen. greenish-grey, some thin argen and veinlet wh. dolomite developed																	
		Hand sub-H shearing, rock gen. fractured and somewhat foliated, shear or gouge zones contain v.v.f. py a.a., but mnr. in interval (<5% of rock in distinct shears)																	
214.88	222.82		HLBX	4R	SH	BX			28		PY/IN/0.1/HE/IN/10			214.88	215.88	22118	1.03	0.34	
		primarily breccia (dol breccia) of sand to pebble sized frag of dolomite, and MFCA (subsidiary), w/ some large slivers of dol. breccia or MFCA to 0.25cm within zone, rock gen. highly brecciated to some zones of fault gouge (esp. upper 1.0m												215.88	216.88	22119	1.00	0.34	
FAULT														216.88	217.88	22120	0.99	0.10	
														217.88	218.88	22121	0.99	0.07	
														218.88	219.88	22122	1.01	0.10	
														219.88	220.88	22123	1.00	0.07	
														220.88	221.88	22124	1.00	0.07	
		and 219.90 to 220.40m) py and mafic minerals in breccia and gouge heavily oxidized, rock now d.red. to maroon due to heavy HE staining, which occurs primarily as clay-like HE in fractures of breccia, crackle, texture, along shears, etc. mnr. interstitial v.v.f.py. remaining largely revealed w/ dol cement and dol. veinlets												221.88	222.82	22125	0.95	0.07	

NORTH AMERICAN METALS CORP – LITHOLOGY LOGGING SHEET

Logged by: GFM

DDH 95U6144

Date: Aug 7/95

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
222.82	228.89		MFCA	4R	MS	FR	BN		16	19	PY/PT/0.5/HE/IN/5			222.82	223.82	22126	0.93	0.07	
		altered ash tuffs, somewhat brecciated and										223.24	SH/0/40	223.82	224.82	22127	0.64	0.03	
		fractured near top of interval (near fault)										224.80	SH/0/42	224.82	225.82	22128	0.96	0.14	
		but gen. more ms. w/ faint banding or										227.09	SH/0/27	225.82	226.82	22129	0.99	0.03	
		bedding and some foliation, shears thru												226.82	227.82	22130	0.94	0.07	
		interval but single plane,												227.82	228.89	22131	0.85	0.07	
228.89 E.O.H.		heavy HE alteration thru. interval, some remnant py. as small patches and blebs, gen. // to foliation																	

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GOLDEN BEAR OPERATING COMPANY

DATE: Aug. 4/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20901	UG 144	0.07				
2		0.03				
3		0.03				
4		0.38				
5		0.48				
20906		<0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 5/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20907	UG 144	0.03				
8		0.03				
9		0.03				
10		0.03				
11		0.03				
12		0.07				
13		0.07				
14		0.03				
15		0.10				
20916		0.03				
17		0.14				
18		0.03				
19		0.03				
20		0.03				
21		0.03				
22		<0.03				
23		<0.03				
24		0.07				
25		0.03				
26		0.03				
27		0.10				
28		0.03				
29		0.07				
30		0.07				
31		0.03				
32		0.10				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 6/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20933	UG 144	0.10				
34		0.45				
35		0.14				
36		0.24				
37		0.17				
38		0.17				
39		0.07				
40		0.03				
41		0.07				
42		0.07				
43		0.03				
44		0.03				
45		0.03				
46		0.03				
47		0.38				
20948		0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 6/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
20949	UG 144	0.24				
50		0.07				
51		0.03				
52		0.10				
53		0.10				
54		0.10				
55		0.03				
56		0.10				
57		0.10				
58		0.24				
59		0.07				
60		0.03				
61		0.03				
62		0.03				
63		<0.03				
64		<0.03				
65		<0.03				
66		<0.03				
67		<0.03				
68		0.03				
69		0.03				
70		0.03				
20971		0.07				

GOLDEN BEAR OPERATING COMPANY

DATE: Aug. 7 /95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20972	UG 144	0.03				
73		0.03				
74		0.03				
75		0.10				
76		0.03				
77		0.10				
78		0.17				
79		0.17				
80		0.14				
81		0.75				
82		1.03				
83		0.96				
84		4.08		5.91		0.51
85		1.82				
86		0.86				
87		4.18		6.02		0.26
88		2.95				
89		3.77		3.53		0.28
90		4.77		4.05		0.37
20991		6.96		4.10		0.38

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 7/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
20992	UG 144	2.40				
93		3.50		3.60		0.40
94		3.26		2.99		0.41
95		5.01		3.35		0.84
96		4.05		3.93		0.50
20997		5.28		2.85		0.31
22101		10.42		3.32		0.50
2		5.04		1.92		0.39
3		0.34				
4		1.23				
5		0.51				
6		0.82				
7		4.46		0.24		0.10
8		6.55		0.93		1.12
9		0.10				
10		0.03				
11		0.03				
12		0.03				
13		0.17				
14		0.03				
22115		0.03				

GOLDEN BEAR OPERATING COMPANY

DATE: Aug. 8/95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
22116	UG 144	.03				
7		.07				
8		.34				
9		.34				
120		.10				
1		.07				
2		.10				
3		.07				
4		.07				
5		.07				
6		.07				
7		.03				
8		.14				
9		.03				
130		.07				
22131		.07				

NORTH AMERICAN METALS CORP.
DRILL LOG COVER SHEET

DATE:

PAGE 1 OF

DRILL HOLE # G95I/G145 PROJECT AREA: SECTION:

DRILL HOLE LOCATION DATA

EASTING: 25050.09
NORTHING: 23905.18
ELEVATION: 965.84
HOLE LENGTH (M):

DRILL DIARY

STARTING DATE: 01/08/95 (DD/MM/YYYY)
COMPLETION DATE: 10/08/95 (DD/MM/YYYY)
LOGGED BY: CMP RIG: 38 CONNORS#1
CONTRACTOR: Advanced CORE SIZE: PQNQ
SURVEYED BY: PH EDITED BY:

DOWN HOLE SURVEY DATA

SURVEY LEVEL	DEPTH	AZIMUTH	DIP (+/-)	TEST TYPE
COLLAR	0.00	275.533	+16.760	SURVEY
1 (150')	45.72m	273.5	+15.50	SPERRY
2 (300')	91.44m	271.00	+14.50	SPERRY
3 (450')	137.15	271.00	+14.00	SPERRY
4				
5				

PURPOSE:

LITHOLOGY SUMMARY

FROM	TO	ROCK CODE	REMARKS	FROM	TO	ROCK CODE	REMARKS
0.00	27.95	MFCA		160.65	165.70	MFCA	
27.95	33.75	MFAS		165.70	165.96	GOUG	
33.75	34.65	MFCA		165.96	168.00	LMSL	
34.65	44.00	MFCA		168.00	174.13	GOUG	
44.00	47.95	MFFL		174.13	180.13	DOSB	
47.95	62.63	MFCA					
62.63	63.29	GOUG					
63.29	73.59	MFCA					
73.59	73.74	VNQZ					
73.74	81.10	MFCA					
81.10	82.33	ARGI					
82.33	83.40	MFCA					
83.40	86.30	MFFL					
86.30	89.59	MFCA					
89.59	90.16	ARGI					
90.16	97.23	MFCA					
97.23	98.16	HLBX					
98.16	99.00	DOCH					
99.00	99.43	VNCA					
99.43	137.17	DOCH					
137.17	156.26	DOLO					
156.26	160.65	GOUG					

COMMENTS:

CHECK LIST: ASSAY REPORT CORE PHOTOS

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LITHOLOGY LOGGING SHEET
Date: Aug 4 PAGE 1 OF ___

FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
0.00	13.15		MFCA	AT	MS	BD	VN	FR	16	26	PY/SP/7-10%								
			massive to bedded volcanic rock, foliated & deformed, veined & (veins are soft, white, only very slightly reactive w/ HCl), pyritized - up to 10% as spots both w/in veins & surrounding rock, bleached to tan & grey colours, soft, non reactive w/ HCl, core is rubbly - drilling caving.															
13.15	13.93		MFCA	GT	MS	PP	BN		0	14	Py/sp/1%	13.25	FR/0/35°						
			massive porphyritic altered volcanic (MFAS?) some colour banding from Tan to light green, veined, soft, non calcitic, phenocrysts ~ 1-2 mm aug.									13.63	FR/0/55°						
13.93	15.90		MFCA	TA	BD	VN	FR		16	26	PY/PT/15%	14.28	BD/1/60°						
			bedded volcanics, bleached & pyritized w/ up to 15% pyrite developped locally along bedding or as patches x cutting bedding, thin gouge / shear zones (2cm) along some fractures, 2 fracture sets, - along bedding and x cutting bedding, both at ~ 60° to core axis.									14.40	FR/0/55°						
												15.50	FZ/0/35°						
												15.90	FZ/0/60°						
15.90	19.78		MFCA	T	BD	VN	FR		16	24	PY/SP/2% / Mal RD/0.1%	19.20	BD/1/70°						
			MFCA, bedded w/ bedding <1cm to 5cm+, some foliation developped along bedding (hedrock porphyritic), phenocrysts are altered to pale green, shear zone w/ some fault gouge developped along some fractures, pyrite present as spots throughout, locally concentrated in veins.									18.54	FR/0/65°						
												18.78	FR/0/25°						
												19.24	FR/0/55°						
												19.40	BD/0/55°						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
19.78	24.64		MFOA	TA	MS	PP	BN	VN	14	16	py/sp/0.5% / HE/ST/3%	20.65	FO1/50°						
		massive to banded to weakly bedded, porphyritic altered										21.61	FR/01/70°						
		volcanics · phenocrysts up to 4mm - altered to a pale										21.94	FR/10/45°						
		green colour · from 19.08 to 21.90 rock is hematite stained,										22.70	FR/0/70°						
		w/in veins ≈ // to foliation, pyrite spots developed w/in										24.60	FR/10/45°						
		translucent grey/white veins. white, talc-like fracture																	
		coating																	
24.64	27.95		MFOA	TR	MS	PP	BN	VN	18	16	HE/ST/7%	25.80	FR/10/45°						
		same as above w/ hematite staining & veinlets throughout,										26.07	VN/4/43°						
		at 26.07 to 26.18 is a basalt dyke, w/ pyroxene(?)										27.63	BN/2/45°						
		phenocrysts										27.70	FR/10/70°						
27.95	33.75		MFAS	SG	BD	VN	FR		16	0	HE/WK/5%	28.00	BD/1/45°						
		well bedded mafic volcanics, veined & fractured, core is										28.10	FR/10/180°						
		highly fractured & rubbly from ≈ 29.30-30.20m, fractures										28.40	FR/0/45°						
		are hematite stained & slip planes are present along										30.90	FR/10/35°						
		most - no gouge.										31.32	FR/0/20°						
												31.38	FR/10/60°						
												31.86	FR/10/75°						

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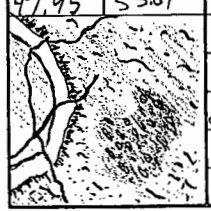
FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
33.76	34.65		MFCA		CR	BX			24	16	HE/VN/10%	34.27	FR/0/45°						
			bleached, hematitic volcanics veined & crackled w/									31.45	FZ/2/45°						
			a 30cm ~~[illegible]~~ rehealed brecciated unit in the																
			center of the interval - clasts are angular																
			1-2cm, matrix is hematitic, clast supported,																
			75% clasts.																
34.65	44.00		MFAS	5G	BD	VN	FR		16	0	HE/VN/5%	35.15	FR/0/20°						
			same as above MFAS									38.00	FR/0/45°						
												39.72	FR/0/50°						
												40.60	BD/1/25°						
												41.40	BD/1/25°						
												43.33	FR/0/80°						
44.00	47.95		MFFL	5G	MS	VN			0	0	HE/VN/1%	44.80	FR/0/80°						
			massive, green volcanics, no flow structures, phenocrysts									45.44	FR/0/70°						
			<1mm, abundant hematite veinlets, some discontinuous (see																
			diagram, white 'talc' like veins soft, non calcitic, talcy texture																
47.95	53.04		MFCA	GR	CR	VN	BN		14	16	HE/VN/5	48.17	QD/0/10						
			banded or finely bedded ash tuffs, bleached and									51.66	FR/0/33						
			dolomitized, bleaching more intense (or second									52.26	FR/0/40						
			phase adj. to fractures), complex network of v.v. fine																
			hairlike but HE-filled fractures thru interval,																
			also qtz-dol. veinlets ∥ to and X-cutting bedding																

fract. gen. planar, form rectilinear pattern, in part apparently ∥ to bedding

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53.04	55.50		MFCA	66	BN	VN			12	16	HE/VN/2 PY/DS/0.1	53.44	QD/0/35						
		ash tuffs w/ faint bands, in part due to faint foliation/alignment of minerals, bleached, dolomitized, same episode, cut by open pattern qtz-dol ± HE veinlets gen. <3mm wide, v. mnr. py as small disseminated patches gen conc along bedding																	
55.50	57.38		MFCA	BT	SK	BN			14	16	HE/FR/1								
		altered ash tuffs as above, more bleached, pale grn. to tan, v. distinctive fine rectilinear network hair-line frac. HE-filled, predom ⊥ or sub-parallel to banding or bedding, often discontinuous,																	
		mnr. py appear as tiny "augen" or blebs along bedding, surrounded by HE halos																	
		HE staining becomes pervasive over lower 20cm of interval																	
57.38	62.63		MFCA	BT	FR	MS	BN		14	14	HE/FR/0.5 FU/PT/0.1 PY/BD/2								
		pale green or tan ash and poss. mnr. crystal tuffs, gen. extensively altered and bleached, irreg patches which cross cut banding of less altered and bleached rock, faint banding or foliation evident some places, cut by irregular, widely spaced veinlets																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
												58.64	SH/0/55						
		dolomite and occasionally qtz-dol											BD/0/55						
		irreg. streaks and patches (possibly elongated																	
		subtl to banding) py-rich tuff - appears as										59.35	DV/0/54						
		dark gy. patches in rock, also v.v.f. py										61.72	VN/0/75	← HE					
		conc. along irreg. frac. - thin gauge at ~58.89-58.96																	
62.63	63.29	FZ	GAU	SA					29	14.	PY/60/5			62.63	63.29	23088	0.25	0.38	
Fault Zn.		gauge and breccia zone w/ some remaining frag of MECA to several cm, show abund. py as irreg. patches in frag., v.v.v.f. py, appears dk gy w/o magnification, but, patches to several cm abund py also in gauge, mnr. HE-lined fractures																	
		upper and lower contacts irregular, wavy																	
63.29	73.59		MFDA	BT	SK	BN	MS		14	14	PY/DV/5 FW/PT/0.1			65.03	66.03	23089	0.94	0.17	
		massive to some evidence of banding, aphanitic rock, bleached and carbonate altered ash tuffs, distinctive rectilinear stockworks of fractures w/ py-filling and py-replacement of wallrock, grades from hairline frac (essentially ⊥ to core axis)																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
											filling of py. to pervasive replacement giving appearance of ms. rock when viewed w/o magnification, stockworks 63.29 to 63.49m, 63.65 to 63.70m, 65.06 to 65.95 w/ pervasive py, 63.21 to 63.30m, 70.09 to 70.39,	70.89 to 72.75m							
73.59	73.74		VNQA	W	MS	VN	VG		0	0		73.59	LC/0/70°						
			Quartz vein w/ vuggy calcite veins w/ init.									73.74	LC/0/60°						
73.74	81.00		MFCA	ST	MS	BD			12	/4	PY/VN/1%	74.73	FR/0/70°						
			MFCA, massive to bedded, porphyritic. from 78.00 to 78.33 is an unaltered (dark green, massive) flow. in the lowest meter of section pyrite occurs in veins and along bedding up to ~10%, lower contact is bleached, fuyable, shear zone									75.17	FR/0/75°						
												75.89	FR/0/75°						
												77.50	FR/0/55°						
												79.52	FR/0/30°						
81.10	82.33		ARG	N	IB	BD			12'	0	PY/BD/3%	81.51	FR/0/60°						
			bedded, silty argillite w/ rare thin (1cm) interbeds of MFCA, bedding is deformed, folded, pyrite occurs in more graphitic interbeds. ~3% overall									81.77	FR/0/60°						
												82.15	FR/0/65°						

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
82.33	83.40		MFCA	5A	BD	MS	PP		14	14	PY/BD/1%/PY/SD/10%	82.40	BD/Φ/60°						
		bedded in upper 30 cm then massive & porphyritic below that. core is rubbly btwn ~ 82.50 - 82.90, phenocrysts are ~ 2-4mm.																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
83.40	8630		MFFL	46	MS				0	0	HE/ST/1%	84.11	VN/11 50°						
			med. dark green massive porphyritic volcanics,									84.39	FR/0/60°						
			phenocrysts are light to pale green <1mm - 2mm %									85.00	FR/0/85°						
			minor hematite in veins; lowest 40cm is									85.90	FR/0/85°						
			bleached w/ hematite staining.																
86.30	89.59		MFCA	BT	SH	MS			24	28	PY/BT/10%	86.71	FR/0/40°	86.30	87.25	21501	0.94	0.31	
			bleached porphyritic volcanics, intensely pyritized									87.20	FR/0/80°	87.25	88.30	21502	0.97	0.03	
			from 86.56 - 87.00m (~40% pyrite) below 87.25									87.80	SH/31 50°	88.30	89.59	21503	0.92	0.07	
			rock is sheared along fracturesw/ incipient gouge zones									88.05	FR/0/50°						
			developping. (lowest 30cm core is rubbly/gravel																
			size)																
89.59	90.16		ARGI	3A	BX	CR	GO		29	0	PY/DS/1%	89.75	FR/0/35°	89.59	90.16	21504	0.63	0.55	
			upper 15 - 20cm is clay rich gouge which grades from light									90.08	FR/0/60°						
			grey to v. dark grey, contains ~ 2% pyrite, rest of unit																
			is brecciated & cracked bedded argillite/graphitic beds)																
			by roughly calcite & veined prior to brecciational veins are																
			broken up). Lower contact is not gouge but shows evidence																
			of deformation (folded & irregular).																

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
90.16	97.23		MFCA	A	SH	MS			18	26	PY/PT/10%	90.62	FR/0/35°	90.16	91.18	21505	0.92	0.03	
		sheared & deformed MFCA - gouge & brecciated blwn 90.44 - 90.62, & blwn 92.77 & 93.35. Pyritized, pyrite present in veins & patches ~10% overall, core is competent but sheared along most fractures.										91.28	FR/0/45°	91.18	92.15	21506	0.80	0.14	
												91.95	FR/0/35°	92.15	93.20	21507	0.96	0.14	
												93.30	FR/0/65°	93.20	94.18	21508	0.86	0.51	
												95.55	FR/0/60°	94.18	95.15	21509	0.91	0.31	
												96.88	FR/0/170°	95.15	96.10	21510	0.92	0.14	
97.23	98.16	F2	HLBX	5A	BX	SH			29	26	PY/DS/1%			96.10	97.23	21511	1.07	0.58	
		fault zone w/ sheared & brecciated MFCA for upper ~40cm, ~20cm of heterolithic breccia containing both MFCA & DOCH clasts, lowest 40cm is dominantly brecciated DOCH												97.23	98.16	21512	0.79	0.51	
98.16	99.00		DOCH	6A	BX	CR	VN		29	19									
		brecciated DOCH w/ ~ 15% chert, chert tends to be crackled but not totally brecciated, calcite veined																	
99.00	99.43		VNCA	WA	CR									99.00	99.43	21513	0.41	0.07	
		crackled calcite vein w/ dark graphitic veinlets																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
99.43	111.05		DOCH	5A	CR	VN	FR		19	22		100.55	FR/0/45°	99.43	100.45	21514	0.99	0.07	
		crackled grey dolomite & dark grey-black chert, locally										102.35	FR/0/25°	100.45	101.33	21515	0.91	0.14	
		brecciated around a fracture, slightly silicified -										104.53	FR/0/70°	101.33	102.35	21516	0.67	0.14	
		hard & only v. slightly reactive w/ HCl where										106.38	FR/0/80°	102.35	103.35	21517	1.11	0.24	
		scratched. btwn 107.30 & 108.10 is a bioclastic										109.81	FR/0/50°	103.35	104.30	21518	0.99	0.38	
		interval w/ crinoidal fragments.												104.30	105.26	21519	0.83	0.24	
														105.26	106.20	21520	0.92	0.41	
														106.20	107.20	21521	0.76	0.03	
														107.20	108.18	21522	0.95	0.07	
														108.18	109.15	21523	0.96	0.10	
														109.15	110.10	21524	0.91	0.07	
														110.10	111.05	21525	0.85	0.10	
111.05	131.56		DOCH	4A	BX	CR	VN	FR	29	19		111.75	FR/0/80°	111.05	112.07	21526	1.02	0.17	
		crackled & brecciated DOCH, ~10-15% chert										112.82	FR/0/75°	112.07	113.06	21527	0.89	0.14	
		breccia is generally non rotated or slightly rotated: locally										114.75	FR/0/80°	113.06	114.05	21528	1.01	0.07	
		rock is more thouroughly brecciated w/ rotated - sub ang to										115.72	FR/0/60°	114.05	115.00	21529	0.95	0.21	
		subrounded clasts. - very minor sulfides locally in matrix (<0.1%)										117.12	FR/0/75°	115.00	116.02	21530	1.01	0.07	
		lowest 1 m of unit is vuggy w/ minor sulfides along stylolitic										118.34	FR/0/60°	116.02	117.04	21531	0.90	0.07	
												120.00	FR/0/70°	117.04	118.00	21532	0.91	0.10	
		fractures.										122.61	FR/0/45°	118.00	119.00	21533	0.99	0.14	
												123.80	FR/0/45°	119.00	120.00	21534	0.97	0.07	
												124.80	FR/0/60°	120.00	120.92	21535	0.81	0.03	
												125.22	FR/0/85°	120.92	121.94	21536	0.99	0.07	
												127.75	FR/0/30°	121.94	122.92	21537	0.93	0.03	

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												122.80	FR/01/80°	122.92	123.95	21538	0.96	0.07	
												129.59	FR/01/80°	123.95	124.86	21539	0.82	0.07	
														124.86	125.80	21540	0.91	0.03	
														125.80	136.80	21541	1.02	0.07	
														126.90	127.71	21542	0.80	0.17	
														127.71	128.77	21543	1.03	0.14	
														128.77	129.59	21544	0.76	0.17	
														129.59	130.66	21545	1.07	0.21	
														130.66	131.56	21546	0.93	0.14	
131.56	134.41		DOCH	8A	CR				19	19	Py/DS/0.1%			131.56	132.57	21547	0.89	0.17	
		crackled dolomite w/minor chert bands (5%), pale grey, w/												132.57	133.39	21548	0.91	0.21	
		fg. sulfides along fractures & veins (~0.1%)												133.39	134.41	21549	1.01	0.17	
134.41	137.17		DOCH	YA	CR	BX			29	19	Ci/in/15%			134.41	135.53	21550	0.72	0.27	
		Same as above w/ more brecciation & thorough												135.53	136.27	21551	0.72	0.17	
		limonitic staining in matrix, btwn 136.30 & 136.60												136.27	137.17	21552	0.81	0.17	
		is a rhyolite breccia, milled w/ clasts as small as sand size.																	
		matrix is silty & limonitic, lowest 30cm of unit is																	
		a milled, reheated breccia w/ clasts as small as 1mm.																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN
137.17	145.43		DOLO	8A	BX	CR			29	19	PY/PT/0.1%	138.38	FR/0/60
			pale grey to white brecciated DOLO w/ minor sulfide stringers and v. rare patches (~PY±0.1%), breccia clasts range from >5cm to 2mm throughout, locally matrix support, matrix is white ± calcite (clasts are cracked)									140.60	FR/0/70
												142.75	FR/0/40
												147.55	FR/0/80
												145.13	FR/0/40°
145.43	155.34		DOLO	8A	CR	BX			26	19	PY/VN/0.1%	147.28	FR/0/60°
			dominantly cracked w/ minor brecciated intervals, rare chert fragments, dark grey f.g. sulfide stringers throughout but very few.									151.30	FR/0/70°
												154.13	FR/0/50°
155.34	156.26		DOLO	5A	BX	RB			29	22	PY/BM/10%		
			Thin v. ushly brecciated Dolomite, v. minor chert clasts (<5%) and few clasts showing evidence of rebrecciation (1%), abundant f.g. sulfides throughout matrix. Breccia is clast supported										

FROM	TO	SAMPLE#	RECOV	AU G/T	S%
137.17	138.19	21553	0.99	0.27	
138.19	139.20	21554	1.00	0.31	
139.20	140.20	22055	0.98	0.14	
140.20	141.24	22056	0.99	0.10	
141.24	142.19	22057	0.94	0.10	
142.19	143.30	22058	1.10	0.10	
143.30	144.35	22059	1.10	0.14	
144.35	145.43	22060	1.07	0.10	
EOH					
145.43	146.22	28061	0.77	0.17	
146.22	147.28	22062	1.10	0.21	
147.28	148.25	22063	1.00	0.13	
148.25	149.35	22064	1.04	0.17	
149.35	150.39	22065	0.92	0.19	
150.39	151.37	22066	0.98	0.10	
151.37	152.44	22067	0.91	0.24	
152.44	153.40	22068	0.98	0.10	
153.40	154.44	22069	0.90	0.10	
154.44	155.34	22070	1.06	0.55	
155.34	156.26	22071	0.74	(16.90)	

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NORTH AMERICAN METALS CORP
LITHOLOGY LOGGING SHEET

Logged by: CMC

Date: Aug 8

DDH G95UG145

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
156.26	160.65	FZ	GOUG	3A	GO	FO			29	22	PY/BM/15-20%			156.26	157.00	22072	0.74	3.03	
Fault		interval of gouge breccia w/ both Dolomite & MFCA clasts in it, from 156.26 to 157.00 matrix supported, ~40-50% clasts, Foliated @ ~45° to C.A., matrix is clay rich, w/ abundant py + fg. grey sulfides, below 157.00 the % of clasts drops to ~15%, pyrite is very abundant												157.00	158.00	22073	0.93	0.17	
														158.00	159.05	22074	1.08	0.11	
														159.05	159.90	22075	0.67	0.07	
														159.90	160.65	22076	0.77	0.07	
		in the dark grey-black matrix, this same clay rich clast poor gouge continues to end of unit, sulfide content decreases as we move away from the overlying carbonate & toward the underlying MFCA.																	
160.65	165.70	FZ	MFCA	GT	GO	SH	BX		29	18				160.65	161.65	22077	0.86	0.07	
Fault		sheared w/ gouge fractures, soft locally brecciated pale green to creamy tan w/ pink hematite staining, original texture appears to be massive + porphyritic, hematite veins, no pyrite or fine grained sulfides visible, lowest 2m is gouge												161.65	162.60	22078	0.98	0.07	
														162.60	163.65	22079	0.83	1.68	
														163.65	164.70	22080	1.00	0.21	
														164.70	165.70	22081	1.10	0.17	
165.70	165.96	FZ	GOUG	N	GO				29		PY/10S/0.5%			165.70	165.96	22082	0.23	0.38	
Fault		dark grey to black gouge of graphitic limestone and MFCA, lowest 5cm is a rehealed, milled limestone breccia w/ clasts avg. 0.5 cm + a dark graphitic matrix, matrix supported																	

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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
165.96	167.30		LMSL	6A	CR	BX			28	28	PY/VN/1%			165.96	166.60	22083	0.54	0.10	
		med grey, crackled, fractures & gougy limestone												166.60	167.30	22084	0.60	0.21	
		silicified, hard & slightly reactive w/ HCl																	
		dark grey veinlets along crackle fractures contain																	
		pyrite & fg. grey sulfides.																	
167.30	168.00		LMSL	N	BX	CR	VN		28	28	PY/DS/1%	168.00	LC/0/100	167.30	168.00	22085	0.71	0.27	
		black bedded graphitic limestone, silicified & crackled																	
		to brecciated calcite veined, contact is a sheared,																	
		breccia between above ~~the~~ LMSL & lower MFCA.																	
168.00	171.86	FZ	GOUG	7A	GO	BX			29	24	PY/DS/1%/PY/PT/1%			168.00	168.97	22086	0.98	0.24	
		MFCA gouge, locally sheared & crackled MFCA,												168.97	169.95	22087	0.96	0.27	
		v. soft w/ clay fillings in fractures, down unit												169.95	170.90	22088	0.95	0.31	
		it becomes more matrix rich & lowest 1 m is a												170.90	171.86	22089	0.84	0.31	
		matrix supported clay gouge w/ milled clasts. locally																	
		pyrite rich																	
171.86	172.77	FZ	GOUG	3A	GO	SH			29	22	PY/PT/2%			171.86	172.77	22090	0.80	0.45	
		darker more graphitic gouge w/ a silicified limestone																	
		content (50-60%), pyrite present disseminated																	
		and in patches,																	

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NORTH AMERICAN METALS CORP
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FROM	TO	FLAG	ROCK CODE	COLO	TEXT 1	TEXT 2	TEXT 3	TEXT 4	STRUC INT	ALTN INT	MINERALIZATION MINERAL // HOW // AMOUNT	STRUCTURE DIST	STRUCTURE FT/TH/AN	FROM	TO	SAMPLE#	RECOV	AU G/T	S%
172.77	174.13	FZ	GOUG	3A	GO				29	14	PY/DS/1%			172.77	173.43	22091	0.80	0.21	
		dark grey clay rich gouge w/ ~ 1% disseminated												173.43	174.13	22092	0.71	0.24	
		pyrite & ~ 40% MFCA clasts from coarse sand																	
		to 5cm diameter, totally incompetant & soft.																	
174.13	180.14		DUSB	6A	BX				29	26				174.13	175.15	22093	0.45	0.10	
		medium grey well brecciated silicified dolomite,												175.15	176.17	22094	0.76	0.21	
		v. hard, pale grey matrix, rare visible sulfides,												176.17	177.09	22095	0.45	0.07	
		core is rubbly but angular, few pieces longer than												177.09	178.00	22096	0.48	0.07	
		5 cm, below 178.00m samples were taken												178.00	178.61	22097	0.63	0.03	
		between footage blocks.												178.61	179.52	22098	0.63	0.07	
														179.52	180.14	22099	0.54	TR	
EOH																			

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GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 7 /95

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D. Green

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
23088	UG 145	0.38				
23089		0.17				
21501		0.31				
2		0.03				
3		0.07				
4		0.55			-	
21505		0.03			-	

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 8, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
21506	UG 145	.14				
7		.14				
8		.51				
9		.31				
510		.14				
1		.58				
2		.51				
3		.07				
4		.07				
5		.14				
6		.14				
7		.24				
8		.38				
9		.24				
21520		.41				
12047	GRAB	.21				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
21521	UG 145	.03				
2		.07				
3		.10				
4		.07				
5		.10				
6		.17				
7		.14				
8		.07				
9		.21				
530		.07				
1		.07				
2		.10				
3		.14				
4		.07				
5		.03				
6		.07				
7		.03				
8		.07				
9		.07				
540		.03				
1		.07				
2		.17				
3		.18				
21544		.17				

GOLDEN BEAR OPERATING COMPANY

DATE: Aug 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
21545	UG 145	.21				
6		.14				
7		.17				
8		.21				
9		.17				
550		.27				
1		.17				
2		.17				
3		.27				
21554		.31				
22055		.14				
6		.10				
7		.10				
8		.10				
9		.14				
060		.10				
1		.17				
2		.21				
3		.17				
4		.17				
5		.14				
6		.10				
7		.24				
22068		.10				

GOLDEN BEAR OPERATING COMPANY

DATE: Aug. 9, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
22069	46145	.10				
070		.55				
1		16.90		5.2		1.0
2		3.02		4.4		.8
3		.17				
4		.14				
5		.07				
6		.07				
7		.07				
22078		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 10, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D.

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	
22079	UG. 145	1.68				
080		.21				
1		.17				
2		.38				
3		.10				
4		.21				
5		.27				
6		.24				
7		.27				
8		.31				
9		.31				
090		.45				
1		.21				
2		.24				
3		.10				
4		.21				
5		.07				
22096		.07				

GOLDEN BEAR OPERATING COMPANY

DATE: AUG. 11, 1995

MINE ASSAY REPORT (SAMPLES)

ASSAYER: D

TAG NUMBER	SAMPLE DESCRIPTION	Au g/t	Ag g/t	C %	S %	S %
22097	UG 145	.03				
8		.07				
22099		TR				