

ASSESSMENT REPORT ON THE

HOW CLAIM GROUP

Merritt Area, British Columbia Nicola Mining Division

NTS: 092 I 07 E & W

Latitude: 50⁰ 17' 00" N Longitude: 120⁰ 42' 00" W

FOR Owners: Ahura Mining Ltd. Mr. Bill Petrie Operator: Ahura Mining Ltd.

> GEOLOGICAL SURVEY BRANCH ANSESSMENT REPORT



By Marthe Archambault, P. Geo November 7, 1999

TABLE OF CONTENTS

Page

i.	LIST	OF	FIGURES
1.	LIST	OF	FIGURES

- ii. LIST OF TABLES
- iii. LIST OF APPENDICES

SUMMARY

1	INTRODUCTION	1
2	LOCATION, ACCESS AND TOPOGRAPHY	1
3	PROPERTY OWNERSHIP AND MINERAL TENURE	1
4	EXPLORATION HISTORY	5
5	REGIONAL GEOLOGY	8
6	PROPERTY GEOLOGY	8
7	1999 FIELD WORK	17
	7.1 Work Program	17
	7.2 Detailed Geology	17
	7.3 Geophysic	25
8	CONCLUSIONS	29
9	RECOMMENDED WORK PROGRAM	30
10	COST STATEMENT	32
11	CERTIFICATE OF QUALIFICATIONS	33
12	BIBLIOGRAPHY	34

LIST OF FIGURES

1	GENERAL LOCATION MAP	2
2	CLAIM LOCATION MAP	3
3	REGIONAL GEOLOGY	9
4	MINERAL OCCURENCES LOCATION MAP	11
5	1999 PROPERTY MAP - WORK LOCATION AND RESULTS	pocket
6	DETAILED MAP OF THE THELMA AREA	21
7	DETAILED MAP OF THE EVE 3 GOSSAN AREA	pocket
8	DIAMOND DRILL HOLE SECTION - HOLE RL 95-03	pocket
9a	BEEP-MAT SURVEY – EVE 3 AREA	26
9b	BEEP-MAT SURVEY – SWAKUM MOUNTAIN AREA	27
9c	BEEP-MAT SURVEY – THELMA AND FENCE AREA	28
10	LOCATION OF PROPOSED WORK	31

LIST OF TABLES

1	PROPERTY OWNERSHIP AND CLAIM TENURE	4
2	HISTORY OF EXPLORATION WORK	5
3	MINERAL OCCURENCES	12
4	SAMPLE DESCRIPTION	22
5	SAMPLE RESULTS	24

LIST OF APPENDICES

1	DIAMOND DRILL HOLE LOG

.

- II ANALYTICAL RESULTS LABORATORY CERTIFICATE
- III BEEP MAT UTILIZATION INSTRUCTION SHEET

Page

SUMMARY

The HOW property is located approximately 21 km north of the town of Merritt, on NTS map sheet 921 07E/W. The claim group is part of the Nicola Mining Division, and consists of 22 claims for a total of 187 units.

The property is underlain by volcanic rocks consisting mainly of andesitic flows and tuffs, agglomerates with interbedded sedimentary units of the Upper Triassic Nicola Group. In the property area, the Nicola Group forms a band approximately fifteen kilometres wide and 60 kilometres long. It is bound on its east side by the Triassic/Jurassic Nicola Batholith and on its west side by the large Triassic/Jurassic Guichon Creek Batholith. Both grade in composition from granodiorite to quartz-monzonite, and were emplaced during the late stages of volcanic activity. The compression caused by their intrusion is responsible for the folding and fracturing in the Nicola Group. This deformation provided access to the mineralizing fluids.

Work on the property started in 1916 with the discovery of the Lucky Mike showing and was soon followed by the sinking of a shaft. Since then the property has a long history of work which led to a total of eighteen (18) BC Government MINFILE mineral occurences on the property with an additional one immediately to the north. Two of these occurences are listed as "past producers", and two as "developed prospects". These discoveries date back to the early 1900's. The mineralization types are described as polymetallic skarn-type mineralization, lead-zinc-silver bearing quartz veins and replacements, and polymetallic quartz veins. They occur in two main distinct areas: the N-S Swakum Mountain Trend and the Tolman Lake Trend with a 060degree orientation. The Sophia prospect is sub-parallel to the Tolman Lake trend.

The 1999 assessment work program consisted of detailed mapping (0.15 sq. km) and Beepmat surveying (1.2 sq. km) of a few chosen areas, in particular the Eve 3 Gossan, the Thelma, Swakum Mountain, and Tolman Lake. One drill hole was re-logged and 2 silt and 25 grab rock samples were sent to Rossbacher Laboratory Ltd. for 28 element ICP and gold by AA analysis.

In conclusion, although numerous companies have worked on small portions of the property throughout the years, there hasn't been a comprehensive exploration program covering the mineralized trends as a whole. An initial CAN\$100,000 work program consisting of line cutting, a soil geochemistry survey, a ground magnetometer survey and geological mapping is recommended. This work program has for main objective to tie in the geology and define the controls of the mineralization, to explore for all mineralization types and commodities including gold, base metals and tungsten. Follow-up work is contingent on the results of this initial work phase.

1 INTRODUCTION

This report was written in order to fulfill the assessment work requirements.

Field work, consisting of mapping, core logging and Beepmat geophysic, was conducted between July 27th and August 9th 1999.

2 LOCATION, ACCESS AND TOPOGRAPHY

The HOW group of claims, located approximately 21 km north of the town of Merritt, is centered at 50° 17' 00"N and 120° 42' 00"W, NTS map sheet 92I 07E/W (Figures 1 and 2).

The property is accessible from three different directions. The southern part of the claim group is accessible by an 18.5 km drive gravel road starting from Highway 5a at 1.4 km north of the Highway 5 and 5a junction. At the 18.5 km mark, a spur road (Old Swakum road) heads north for 1 km where it enters the HOW 9 claim near identification post 3S2E. Access through the claim group is gained via four-wheel drive logging roads.

The northern part of the property can be accessed via the 97C highway for approximately 32 kilometres from Merritt, then by following the Rey Lake road for approximately 6 kilometres where it leaves the power line one kilometre before reaching Rey Lake and heads south-southeast and enters the Eve 1 claim after 2 kilometres.

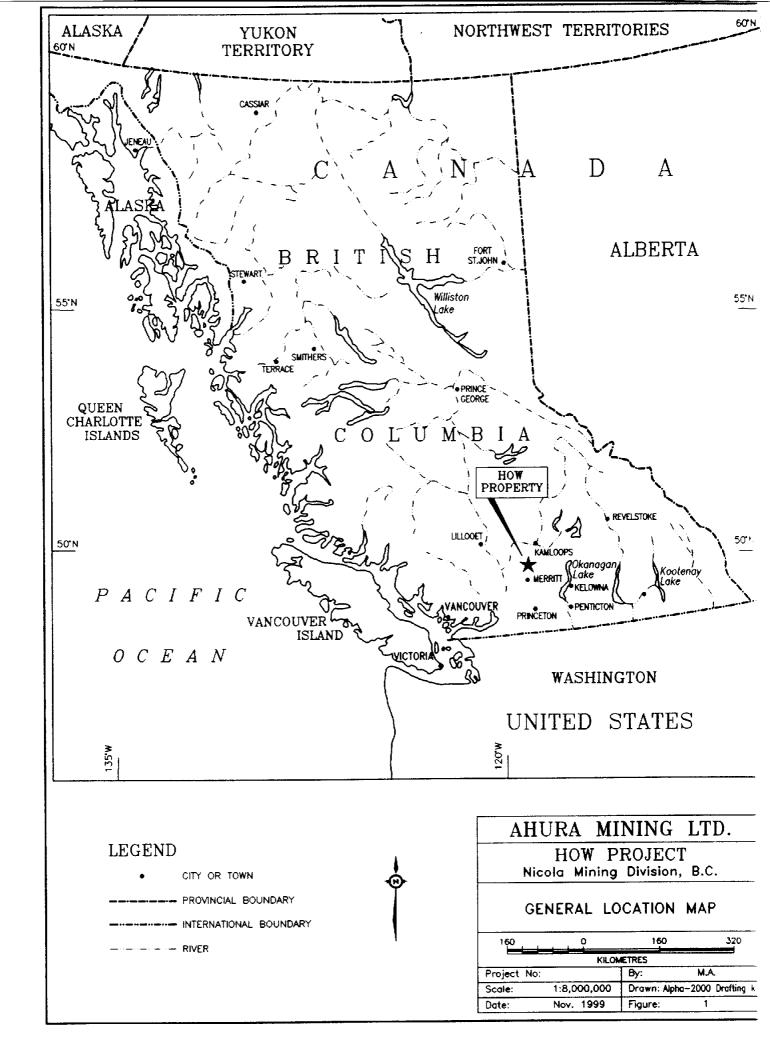
The Tolman Lake area access is gained by following a logging road for about 4 kilometres. Its turn off is located on the 97C highway, approximately 23.5 kilometres from Merritt.

The property is located within the Thompson Plateau, a physiographic division of the Interior Plateau System. Topography is typically gently rolling terrain with elevation relief averaging 200 metres from elevations of 1350 metres to 1550 metres. The east-central area of the property is dominated by Swakum Mountain with a peak elevation of 1858 metres.

3 PROPERTY OWNERSHIP AND MINERAL TENURE

The property is part of the Nicola Mining Division. The claim group comprises twenty-two claims composed of one hundred and eighty seven (187) units. The CORONA and LUCKY MIKE claims are owned by Mr. Bill Petrie of Merritt, B.C. and the remainder is owned by Ahura Mining Ltd. The initial HOW claim group, the subject of this report, consisted of 20 claims for a total of one hundred and sixty one (161) units. The Eve 1 and Eve 2 claims were added to the group on August 12th 1999.

A more detailed description of the mineral tenures is presented in Table 1.



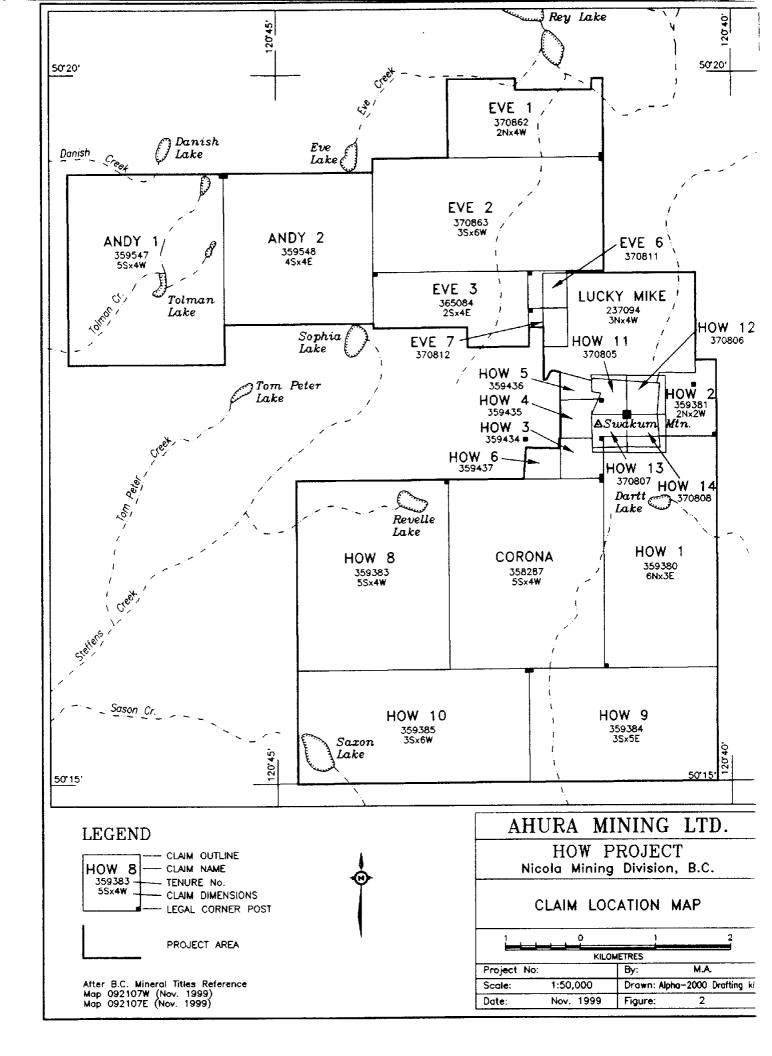


TABLE 1 PROPERTY OWNERSHIP AND CLAIM TENURE

Tenure	Claim	Owner		Мар	Work	Units	Tag
Number	Name	Number	%	Number	Recorded to		Number
237094	LUCKY MIKE	121284	100	092I07E	October 1, 2000	12	79667
358287	CORONA	121284	100	092107E	October 1, 2000	20	208682
359380	HOW 1	140388	100	092107E	October 1, 2000	18	235294
359381	HOW 2	140388	100	092I07E	October 1, 2000	4	235295
359434	HOW 3	140388	100	092107E	October 1, 2000	1	675551M
359435	HOW 4	140388	100	092I07E	October 1, 2000	1	675552M
359436	HOW 5	140388	100	092I07E	October 1, 2000	1	675553M
359437	HOW 6	140388	100	092I07E	October 1, 2000	1	675554M
359383	HOW 8	140388	100	092I07E	October 1, 2000	20	235297
359384	HOW 9	140388	100	092I07E	October 1, 2000	15	235299
359385	HOW 10	140388	100	092I07E	October 1, 2000	18	235300
370805	HOW 11	140388	100	092I07E	October 1, 2000	1	675549M
370806	HOW 12	140388	100	092I07E	October 1, 2000	1	675548M
370807	HOW 13	140388	100	092I07E	October 1, 2000	1	675547M
370808	HOW 14	140388	100	092107E	October 1, 2000	1	675546M
370862	EVE 1	140388	100	092107E	August 12, 2000	8	222465
370863	EVE 2	140388	100	092107E	August 12, 2000	18	222466
365084	EVE 3	140388	100	092I07E	October 1, 2000	8	231257
370811	EVE 6	140388	100	092I07E	October 1, 2000	1	651464M
370812	EVE 7	140388	100	092I07E	October 1, 2000	1	651465M
359547	ANDY 1	140388	100	092I07W	October 1, 2000	20	236101
359548	ANDY 2	140388	100	092I07W	October 1, 2000	16	236102
					TOTAL	187	

4 EXPLORATION HISTORY

The history of exploration on the HOW claim group is summarized in Table 2.

YEAR	COMPANY	LOCATION	TYPE OF WORK	PRODUCTION
1916	Oscar Schmidt and Associates.		Discovery	
1917	Oscar Schmidt and Associates.	Lucky Mike	Sinking of an incline and a shaft (15.2 m). Shipment of 22 tons.	22 tons of ore at 4.6% Cu
1918- 1924		Alameada	Sinking of a shaft (23.1 m). Shipment of 36 sacks.	Shipment assayed: 130.3 g/t Ag, minor Au, 22% Pb, 36% Zn
1925- 1928		Lucky Mike, Alameada	Continued work on Lucky Mike, Alameada and immediately south of Alameada	
1929	· · · · · · · · · · · · · · · · · · ·	Thelma	Sinking of one shaft (76 m)	
1929		Bernice	Sinking of one shaft (18.6 m). One shipment	
1930			Shut down due to financial difficulties	
1934	Sheffield Gold and Silver Mines Ltd.		Acquisition of the Thelma, Alameada and Corona groups of claims. No progress due to a fire destruction of the facilities	
1942- 1943		Lucky Mike	Surface stripping and excavating of open cuts, limited amounts of drilling 14 Diamond Drill Holes	
1956	Jacson Mines Ltd.	Mac group includes Alameada, Lucky Mike and surrounding ground.	Geological Study. Drilling and rock sampling. Digging of 2 trenches along strike.	
1958	Torwest Resources Ltd.	176 claims and 2 mineral leases covering Lucky Mike, Thelma, Alameada, and Gold Gossan.	Self Potential survey followed by trenching and diamond drilling.	
1965-66	Vastlode Mining Co.	Tolman Lake area	Stripping, trenching, 17 holes of diamond drilling and limited magnetometer survey	
1967-68	San Doh Mines Ltd.	Tolman Lake area	Trenching, 34 holes of diamond drilling	
1969	Highland Lode	Tolman Lake area	Geological mapping	

TABLE 2 HISTORY OF EXPLORATION WORK

YEAR	COMPANY	LOCATION	TYPE OF WORK	PRODUCTION
	Mines		· · · · · · · · · · · · · · · · · · ·	
1969	Zulco Explorations Ltd.	On a portion of the Old Alameada property	Induced Polarization survey	
1970	Pomona Developments Ltd.	Dart Lake area	200 soil samples analyzed for Cu, Zn and Mo.	
1971	Highland Lode Mines	Tolman Lake area	Resource calculation for Zone No. 3 by Mr. Elwell, P. Eng.	The arithmetic average grade of the zone was 0.36 oz Ag/ton; 1.69% Pb; 4.80% Zn; and 0.18% Cu.
1971-72	Highland Lode Mines	Tolman Lake area	Geological mapping, 6 holes of diamond drilling and road building	
1972	Adar Resources Ltd.	Lucky Mike, Old Alameada, Alameada No. 1	14.5 km Magnetometer and VLF-EM survey 16.5 km or 576 soil samples analysed for Cu, WO3, Pb and Zn. One 36.5 percussion drill hole, Two 76 m deep diamond drill holes	
1972	Gomara Resources Ltd.	Property Evaluation		
1972-73	Asarco	Rey Lake	86 percussion drill holes and 17 diamond drill holes. Resource estimation	Indicated Resources of: 31,250,000 tons at 0.20% Cu and 0.021% Mo in a zone 150 m wide by 450 m long and 150 m deep.
1973	Asarco	Gold Gossan area	52 soil samples analysed for Copper.	
1976	Cominco Ltd.	N-E of the Lucky Mike	16 km Induced Polarization	
1976	Ruskin Developments Ltd	Tolman Lake area	VLF-EM survey, geochemical survey	
1977	Highland Lode Mines	Tolman Lake area	stripping, trenching, 900 metres of diamond drilling in 16 holes, adit driving for 325 m.	
1977	Ruskin Developments Ltd.	Tolman Lake, Zone 3	Diamond Drilling, 210.3m in 4 holes	
1977-78	Mr. C. Boitard and Lakewood Mining Co. Ltd.	Sophia Lake	14 km of Magnetometer, VLF surveys 11.8 km of IP and soil sampling for Pb, Zn, Cu, Ag, WO3	
1979			3 shallow Diamond Drill Holes 548.6 metres of percussion	

YEAR	COMPANY	LOCATION	TYPE OF WORK	PRODUCTION
		and of Lucky Mike claims		
1979- 1980	C.D.R. Resources Inc.	Tolman Lake area	587metres of diamond drilling in 12 holes	
1981 to 1985	Mr. Sherwin F. Kelly	West of Lucky Mike, west and south-west of Swakum Mtn	Soil geochemical surveys on several small grids in order to fulfill assessment work requirements. The samples were generally analyzed for Cu, Pb, Zn, Ag	
1981	Cominco Ltd.	Lucky Mike	Percussion Drilling – 146.3m in two holes 3.04 m samples were analyzed for Cu, Mo. 15.24 m composite samples were analyzed for Ag, Au, & WO3	
1983	Mr H. Kruse	Dartt Lake	61.27 m of diamond drilling in 3 DDH	
1983	Lakewood Mining Co. Ltd.	Sophia Lake	170 m. of percussion drilling in two holes	
1984- 85-86	Mr. J. Georgilas, Decade International development Ltd.	South of Corona showing West of Corona	Geological mapping and magnetometer survey Two lines of soil geochemical survey with 82 samples analysed for Cu, Pb, Zn, Ag &As	
			VLF-EM survey	
1986	Atlar Resources Ltd	Corona-Thelma	29.1 km, magnetometer, VLF- EM, geological mapping, soil geo- chemical survey with 424 samples analyzed for 29 elements plus silver and gold.	
1986- 1987	Lakewood Mining Co. Ltd.	Sophia	4.2 km of magnetometer and VLF-EM survey and 5.1 km of induced polarization	
1987- 1988	Corona Corporation	Lucky Mike, Old Alameada	34 km line cutting, magnetometer, VLF-EM, Max-Min II, airborne geophysic, detailed geological mapping, soil geochemical survey with samples analyzed for Au, Ag, Cu, Pb and Zn, 800 m of diamond drilling, 175 linear metres of excavator trenching.	
1993	Hera Resources Inc.	Gossan Zone - Eve 3	induced polarization.	
1995	Hera Resources Inc.	Gossan Zone - Eve 3	4 diamond drill holes totaling 616.31 metres with 262 core samples were analyzed for gold and 30 element ICP.	
1997 to present	Ahura Mining Ltd.		Prospecting and mapping.	

5 REGIONAL GEOLOGY

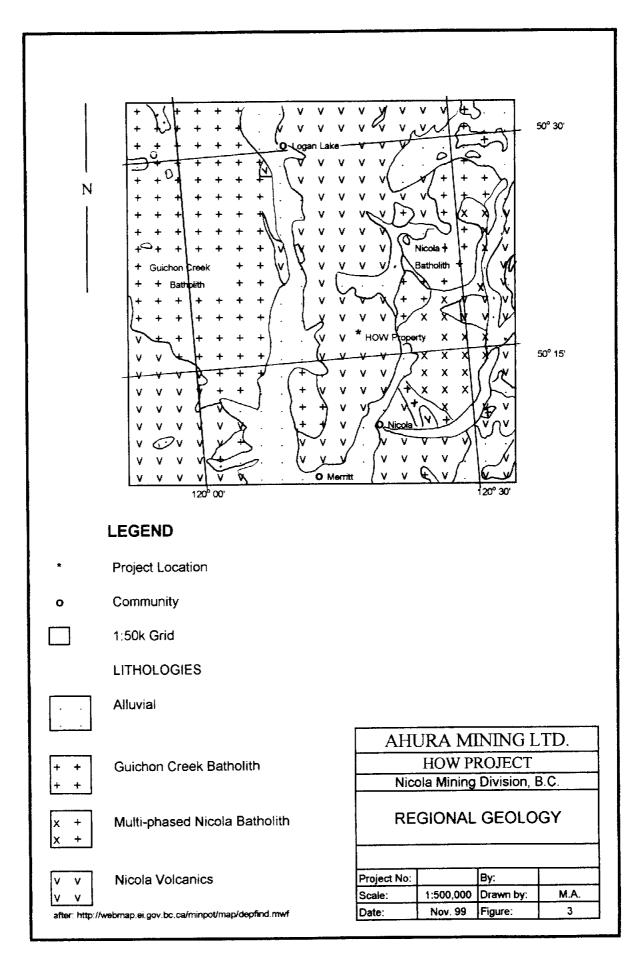
The property is located within the Nicola Belt, a terrain approximately 40 kilometres wide and 180 kilometres long, extending from the International Boundary to the south to Kamloops Lake to the north. It consists mainly of Upper Triassic volcanic, sedimentary, and intrusive rocks of the Nicola Group.

In the property area, the Nicola Group forms a band approximately fifteen kilometres wide and sixty kilometres long (Figure 3). It is bound on its east side by the granodioritic rocks of the Early Jurassic Nicola Batholith and the dioritic rocks of a smaller intrusion. On its west side, it is flanked by the large Triassic Jurassic Guichon Creek Batholith. The Guichon and Nicola Batholiths were emplaced during the late stages of volcanic activity. They show evidence of having been intruded at shallow depth. Both are phased bodies and grade in composition from granodiorite to quartz-monzonite. The adjacent Nicola Group hosts numerous dykes and small plugs of similar composition.

6 **PROPERTY GEOLOGY**

The Nicola Group rocks on Swakum Mountain strike north to northeast with generally steep dips. For a large part they consist of andesitic flows and tuffs, agglomerates, and occasional basalts and rhyolites. A break occurs in the volcanic stratigraphy and is comprised of a mixed volcanicsedimentary unit consisting of a thick sequence of felsic volcanic flows, lithic and crystal tuffs, limy sediments and a prominent limestone. This unit has a northeast strike and a 2.5 kilometre strike length. It crosses Swakum Mountain and has been historically used as a marker horizon in interpreting a large, asymmetrical, south plunging anticline with its north trending axis near Swakum Mountain summit. Narrow quartz porphyry dykes locally intrude the Nicola Group sequence. To the east of this marker unit occurs a thick, unconformable wedge of immature sediments, predominantly coarse polymictic conglomerates (fan-type) and grits with minor cherty units. Most of the old workings on the mountain occur in close proximity to or within this volcanic-sedimentary unit. The Swakum Mountain deposits consist of polymetallic skarn-type mineralization, lead-zincsilver bearing quartz veins and replacements, and polymetallic quartz veins. (after MINFILE #092ISE027)

Numerous mineral occurrences occur on the property and its surrounding. A short description of these occurrences, extracted from the government MINFILES, is given below. The location of each occurrence is listed in Table 3 and shown on Figure 4.



SWAKUM MOUNTAIN TREND

LUCKY MIKE (LAST CHANCE) - Past Producer

COMMODITIES: Silver, Gold, Copper, Lead, Tungsten, Zinc

On the Lucky Mike property, polymetallic skarn mineralization is associated with altered sections of the marker horizon unit of the Nicola Group. Limy volcanics, tuffs and limestone of this marker unit have been in part, converted to garnet-epidote-calcite skarn with associated copper, tungsten, silver and minor gold and zinc mineralization. Drilling has indicated that tungsten mineralization is widespread in the garnet skarn. A drill hole intersection across 14.1 metres of skarn mineralization assayed 0.152 per cent tungsten (Assessment Report 18583).

Copper-zinc-gold-silver values tend to be restricted to late (post-skarn) crosscutting structures. Sulphides consist of chalcopyrite, pyrrhotite and pyrite with lesser galena and sphalerite. A diamond-drill hole intersection across 3.6 metres of skarn mineralization assayed 0.18 per cent copper and 38.39 grams per tonne silver (Assessment Report 18583). Tungsten values occur with the copper and silver where the structures cut through the skarn.

Diamond drilling has tested the skarn for 110 metres strike length and at a variety of elevations 40 to 80 metres below the old surface workings. Based on present and past drilling, indicated resources of skarn available for tungsten mineralization is less than 100,000 tons (Assessment Report 18583).

Geological resources at the Lucky Mike copper-tungsten skarn deposit are estimated at 317,485 tonnes grading 0.56 per cent copper, 0.30 per cent WO3 (0.23 per cent W) and 20.5 grams per tonne silver (Assessment Report 24600).

OLD ALAMEADA (L. 4507) - Prospect

COMMODITIES: Silver, Gold, Copper, Lead, Zinc

Minor historic underground workings have exploited a main vein, 0.6 metres wide, striking north and dipping west (30-40 degrees). The vein is significantly mineralized with pyrite, sphalerite, galena and chalcopyrite. The vein is hosted by felsic to intermediate porphyritic volcanics.

Diamond drilling intersected the main quartz vein within a clayey fracture zone. Drill intersections across 0.68 metres (true width) assayed 167.97 grams per tonne silver, 1.09 per cent copper, 5.25 per cent lead, 20.9 per cent zinc and 0.34 grams per tonne gold (Assessment Report 18583).

OLD ALAMEADA NO. 1 (L.4506) - Showing

COMMODITIES: Copper, Zinc

A vertical shaft is sunk near the northwest corner of the Old Alameada No. 1 claim (L.4506). The showing lies at the contact between the limestone and volcanic rock and forms a zone 7 to 22 centimetres wide. The skarn zone consists of altered limestone with epidote, calcite, pyrrhotite, chalcopyrite and minor sphalerite.

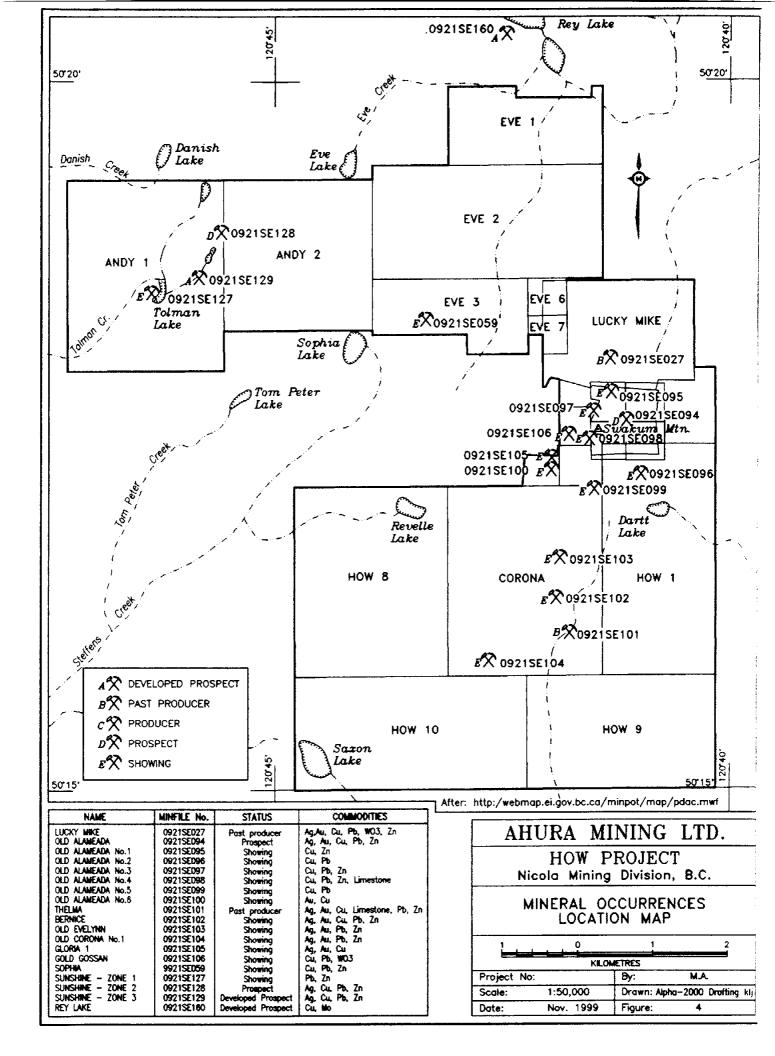


TABLE 3 MINERAL OCCURENCES

NAME	MINFILE #	STATUS	NORTHING	EASTING	LATITUDE	LONGITUDE	COMMODITIES
LUCKY MIKE	092ISE027	Past Producer	5574375	664475	50o 18°02" N	1200 41° 26" W	Ag, Au, Cu, Pb, WO3, Zn
OLD ALAMEADA	0921SE094	Prospect	5573580	664700	50o 17° 36° N	120o 41° 16" W	Ag, Au, Cu, Pb,Zn
OLD ALAMEADA No 1	092ISE095	Showing	5573950	664500	50o 17' 48" N	120o 41` 25" W	Cu, Zn
OLD ALAMEADA No 2	092ISE096	Showing	5572874	664900	50o 17' 13'' N	120o 41° 07" W	Cu, Pb
OLD ALAMEADA No 3	0921SE097	Showing	5573687	664300	50o 17° 40° N	120o 41`36"W	Cu, Pb, Zn
OLD ALAMEADA No 4	092ISE098	Showing	5573360	664218	50o 17° 29" N	120o 41° 41" W	Cu, Pb, Zn, Limestone
OLD ALAMEADA No 5	092ISE099	Showing	5572675	664280	50o 17' 07" N	120o 41' 38" W	Cu, Pb
OLD ALAMEADA No 6	092ISE100	Showing	5572950	663730	50o 17' 16" N	120o 42' 06" W	Au, Cu
THELMA	092I\$E101	Past Producer	5570780	664011	500-16° 06″ N	1200-41° 55" W	Ag, Au, Cu, Limestone, Pb, Zn
BERNICE	092ISE102	Showing	5571225	663825	50o-16° 21" N	1200 42°04" W	Ag, Au, Cu, Pb, Zn
OLD EVELYNN	0921SE103	Showing	5571750	663860	50o 16' 38" N	1200 42°01" W	Ag, Au, Pb, Zn
OLD CORONA NO 1	092ISE104	Showing	5570400	662973	50o 15' 55" N	1200 42° 48" W	Ag, Au, Pb, Zn
GLORIA 1	092ISE105	Showing	5573030	663730	50o 17° 19" N	120o 42° 06" W	Ag, Au, Cu
GOLD GOSSAN	092ISE106	Showing	5573375	663950	50o 17° 30" N	120o 41° 54" W	Cu, Pb, WO3
SOPHIA	0921SE059	Showing	5574822	662062	50o 18' 19'' N	120o 43° 27" W	Cu, Pb, Zn
TOLMAN LAKE - ZONEI	092ISE127	Showing	5575158	658501	50o 18° 33" N	120o 46° 27" W	Pb, Zn
TOLMAN LAKE - ZONE2	092ISE128	Prospect	5575971	659359	50o 18' 58'' N	120o 45° 42" W	Ag, Cu, Pb, Zn
TOLMAN LAKE - ZONE3	0921SE129	Developed Prospect	5575385	659100	50o 18° 40'' N	120o 45' 56" W	Ag, Cu, Pb, Zn
REY LAKE	0921SE160	Developed Prospect	5578550	663000	50o 20' 18'' N	1200 42' 34" W	Cu, Mo

.

OLD ALAMEADA NO. 2 (L. 4508) - Showing

COMMODITIES: Copper, Lead

A shallow shaft was sunk in the west-central portion of the Old Alameada No. 2 claim (L.4508). The shaft follows a mineralized zone consisting of a quartz vein ranging in width from 15 to 60 centimetres and a number of quartz stringers 5 centimetres wide within crushed and sheared andesite. The veins are sparsely mineralized with pyrite and lesser amounts of chalcopyrite and galena.

OLD ALAMEADA NO. 3 (L.4505) - Showing

COMMODITIES: Copper, Lead, Zinc

A shallow shaft was sunk in the northeast corner of the Old Alameada No. 3 claim (L.4505). The shaft intersects an unmineralized 2 metre wide quartz vein striking 030 degrees and dipping steeply northwest within andesite. On the hangingwall side of the vein there is a narrow sulphide streak; masses of copper sulphides also occur across 60 centimetres near the footwall.

OLD ALAMEADA NO. 4 (L.4504) – Showing COMMODITIES: Copper, Lead, Zinc, Limestone

Open cuts on the Alameada No. 4 claim (L.4504) expose numerous stringers and bunches of quartz and calcite hosted in limestone. The vein zone is 1.8 to 2.4 metres wide and carries sparse chalcopyrite, galena, sphalerite and pyrite. The footwall of the zone strikes approximately 050 and dips 80 degrees southeast.

A lens of limestone at the 1706 metre elevation averages 45 metres wide and is exposed for 402 metres along a line trending 020 degrees. The rock is light buff to grey with brown grains of dolomite, white calcite stringers and some thin shaly interbeds. A shallow pit exposes sulphide mineralization near the centre of the lens.

OLD ALAMEADA NO. 5 (L. 4503) - Showing

COMMODITIES: Copper, Lead

A 2.4 metre deep pit in the northeast portion of the Old Alameada No. 5 claim (L.4503) exposes a breccia consisting largely of limestone fragments in a tuffaceous matrix. Sparse pyrite with tetrahedrite and galena occurs in the breccia.

ALAMEADA NO. 6 (L. 4501) - Showing

COMMODITIES: Gold, Copper

A shaft was sunk near the northern boundary of the Alameada No. 6 claim (L.4501) approximately 46 metres south of the Gloria 1 shaft (092ISE105). The shaft intersects a vein zone 20 to 35 centimetres wide consisting of narrow quartz stringers 2.5 to 15 centimetres wide within highly sheared andesite. The quartz carries pyrite, chalcopyrite and gold telluride.

GOLD GOSSAN - Showing

COMMODITIES: Copper, Lead, Tungsten

At the northern end of the Gold Gossan 2 occurrence, a 15 to 35 centimetre wide zone of narrow quartz stringers is exposed on a small bluff of silicified and epidotized andesite. The vein strikes west, dips 17 degrees to the north and carries masses of pyrite, chalcopyrite, galena and minor amounts of scheelite. Approximately 100 metres to the south, underground workings intersect narrow stringers within sheared, pyritic andesitic country rock in a zone up to 60 centimetres wide.

THELMA (L.4510) - Past Producer

COMMODITIES: Silver, Gold, Copper, Limestone, Lead, Zinc

The property covers the contact zone between the volcanic and sedimentary sequences of the Nicola Group. Limestone and conglomerate beds strike north and dip steeply to the east.

The Thelma occurrence consists of one shaft, underground workings and a number of surface trenches, all of which have collapsed and filled in since work ceased in 1940. Silver-leadzinc mineralization is exposed in tabular and lenticular garnet-epidote skarn zones up to 5 metres wide within the limestone. Pyrite, galena and sphalerite, with gold and silver values, occur as metasomatic replacements along bedding planes and as disseminations throughout the limestone. Minor copper values are also associated with the skarn. Quartz veins 10 to 15 centimetres wide are hosted by Nicola Group andesitic rocks near the volcanic-sedimentary contact. These veins carry galena and sphalerite with minor gold and silver values.

BERNICE (L. 4502) - Showing COMMODITIES: Silver, Gold, Copper, Lead, Zinc

The Bernice occurrence lies in the contact zone between volcanic and sedimentary sequences of the Nicola Group. Precious metal mineralization occurs in garnet-epidote skarn zones. Pyrite, sphalerite and galena are the most common minerals, with minor amounts of tetrahedrite and chalcopyrite. As shown by ore in the dump, the deposit consists in part of narrow quartz veins within andesite. The wallrock is partially altered to ankerite along the veins. Pyrite, galena, sphalerite and hydrozincite are present.

OLD EVELYNN (L.4511) - Showing

COMMODITIES: Silver, Gold, Lead, Zinc

The Old Evelynn occurrence lies on the contact zone between volcanic and sedimentary sequences of the Nicola Group. An adit was driven on a garnet-epidote skarn zone approximately 2.5 metres in width near the portal. Low grade mineralization occurs as narrow streaks of galena in andesite adjacent to a limestone band. Pyrite and sphalerite are also present. Near the end of the adit is a 2 to 5 centimetre wide quartz vein in highly sheared andesitic country rock. The vein strikes north and dips at a very low angle to the west; very minor sulphide mineralization is evident.

OLD CORONA NO. 1 (L.4512) - Showing

COMMODITIES: Silver, Gold, Lead, Zinc

The Old Corona No. 1 occurrence is located within folded, fine to medium-grained interbedded basalt flows, tuffs and agglomerates of the Nicola Group. Vein-type mineralization occurs in a 25 to 70 metre wide zone of limonitic, ankeritic volcanics occurs in a distinct depression between prominent north-northwest trending ridges of unaltered volcanics.

In the collapsed Corona shaft and in several trenches, quartz-carbonate veins are 5 to 10 centimetres wide with a northwest strike and steep westward dip. Mineralization includes galena, sphalerite, pyrite and tetrahedrite. Samples from the Corona shaft assayed up to 2442.1 grams per tonne silver and 0.1 grams per tonne gold (Assessment Report 15312).

GLORIA 1 – Showing

COMMODITIES: Silver, Gold, Copper

On the Gloria 1 showing near the Alameada No. 6 (092ISE110), a shallow shaft exposes narrow quartz stringers ranging from 12 to 30 centimetres in width in Nicola Group andesite. The stringer veins strike 010 degrees and dip 75 degrees west and contain widely scattered pyrite and chalcopyrite grains. Bismuth telluride(?) with high gold and silver content is reported. Dump material shows limonite staining.

REY LAKE - Developed Prospect

COMMODITIES: Copper, Molybdenum

The Rey Lake Prospect is located immediately to the north of the HOW Group property, along strike of the Swakum Mountain mineralization. Local geology consists of north striking, steeply dipping volcanic, conglomerates and limestone units of the Nicola Group. A small biotite quartz monzonite stock (Upper Cretaceous) is emplaced subparallel to bedding. A breccia zone consisting of volcanic and some granitic fragments occurs adjacent to the stock. Drill core (1973) indicates contact metamorphism of the albite-epidote-hornfels facies.

Mineralization consists mainly of pyrite, with lesser chalcopyrite and molybdenite. The quartz monzonite stock is mineralized with disseminated pyrite and lesser chalcopyrite and molybdenite. The sulphides also occur in veinlets in the stock and host rocks, as disseminations in the breccia fragments and on fracture surfaces. Quartz, calcite, potassium feldspar and zeolite are the dominant non-metallic minerals.

Total postulated geological resources of the Rey Lake porphyry copper zone and related skarn zone are 46,862,600 tonnes grading 0.17 per cent copper and 0.018 per cent molybdenum (Assessment Report 24600).

SOPHIA LAKE AREA

SOPHIA – Showing

COMMODITIES: Copper, Lead, Zinc

At the Sophia showing, mineralization occurs in a shear zone exposed in a trench. The zone is 8 metres wide, strikes 220 degrees and dips 30 to 60 degrees south. Pyrite, sphalerite, galena and chalcopyrite are associated with quartz and calcite which occur as narrow stringers in andesitic porphyry and as cement in brecciated volcanics.

TOLMAN LAKE AREA

The Tolman Lake area is underlain by intermediate volcaniclastic and flow rocks of the Nicola Group. A strongly brecciated shear zone strikes 045 degrees and dips steeply to the northwest and is apparently continuous over a strike length of 2000 metres. This structure hosts 3 zones of mineralization.

SUNSHINE ZONE 1- Showing

COMMODITIES: Lead, Zinc

Zone 1 is located on the west side of Tolman Lake. Open cuts expose a shear striking 085 degrees and dipping 65 degrees to the north within andesitic tuffs. The shear varies in width from 3 to 8 metres and contains steeply dipping quartz stringers which coalesce downward into a 30 to 60 centimetre wide vein. The vein is fractured and in places brecciated. The fractures are mineralized with sphalerite and minor galena.

SUNSHINE ZONE 2 - Prospect COMMODITIES: Silver, Copper, Lead, Zinc

For 46 metres along the strike of the zone, four trenches expose brecciated andesitic tuffs mineralized with quartz, sphalerite, pyrite, chalcopyrite and galena. The quartz stringers and sulphides lie in two principal directions; one strikes east and dips 75 degrees north and the second strikes 045 degrees and dips 80 degrees southeast. The mineralized brecciated andesitic tuffs are cut by several unmineralized steep faults trending east and northwest.

Combined average assay results from diamond drilling were 0.157 per cent lead, 4.10 per cent zinc, 2.4 grams per tonne silver and 0.17 per cent copper over 3.25 metres; gold averaged less than 0.1 grams per tonne (Assessment Report 8036). Inferred resources are 45,359 to 54,431 tonnes based on a width of 8 metres, length of 50 metres and depth of 30 metres (Assessment Report 6742).

SUNSHINE ZONE 3 – Developed Prospect

COMMODITIES: Silver, Copper, Lead, Zinc

In Zone 3, galena, sphalerite, chalcopyrite, pyrite and pyrrhotite occur in a brecciated zone with a quartz-calcite matrix. The hangingwall consists of bleached and pyritic andesite which grades into numerous quartz and calcite veins carrying sphalerite and galena. The footwall consists of highly silicified andesite containing unmineralized quartz and calcite veins. The mineralized brecciated zone varies in width up to 6.5 metres and is cut and slightly offset by several near-vertical, north trending faults.

Zone 3 has been tested by diamond drilling and underground development to a depth of 50 metres over a length of 165 metres. In 1971, unclassified resources are 258,523 tonnes averaging 1.69 per cent lead, 4.8 per cent zinc, 0.18 per cent copper and 12.34 grams per tonne silver. The grade is difficult to determine due to very poor drill core recovery. The grade is based on drill core and adit sampling (Elwell, 1971).

7 1999 FIELD WORK

7.1 Work Program

A 14 day field program, including mobilization time, was conducted during the period of July 27th and August 10th 1999, by one geologist and one technician. The program was performed in order to fulfill the assessment work requirements, and as preliminary assessment for future work programs.

The short program involved detailed mapping (0.15 sq. km) and Beepmat surveying (1.2 sq. km) of a few chosen areas. Mapping was conducted on the Eve 3, Lucky Mike, Corona, How 1, How 11, Andy 1 and Andy 2 claims. One drill hole from the Eve 3 Gossan zone was re-logged with particular attention to alteration. Beep Mat surveying was conducted on the Eve 2, Lucky Mike, Corona, How 1, How 4, How 5, How 9, How 10, How 11, How 12, How 13, How 14, Andy 1 and Andy 2. Two silt and twenty-five grab rock samples were collected and sent to Rossbacher Labs for 28 element ICP and gold by AA analysis.

The surveyed areas, mapping results and sample locations are plotted on Figure 5

7.2 Detailed Geology

The property is underlain by rocks of the Nicola Group which consists mainly of mafic volcanic flows, tuffs and breccias with lesser thin sedimentary lenses of limestone, conglomerate and sandstone. Detailed mapping has permitted to distinguish the following sub-units.

VOLCANICS

Aphanitic: Generally dark green and massive with no distinctive features.

Aphanitic, pillowed: The pillows are approximately 20cm wide and 15cm high. This unit has been seen in only one location, a small outcrop (2 sq.m.)15m west and 20m south of the Thelma shaft. It indicates a younging direction towards the east.

Feldspar porphyries: The porphyritic feldspar grains, hosted in a dark green aphanitic matrix, are generally euhedral and vary from 0.5 to 2 mm in diameter. Their density varies anywhere from 5 to 40%.

Mafic porphyries: The matrix is usually dark green to dark grey. It can be aphanitic or fine grained and it is frequently magnetic. The mafic porphyries are generally 0.5 to 1mm in diameter. Their composition is pyroxene in places, or magnetite in others.

Fine to medium grained, equigranular: The fine grained phase is dark green to dark grey. As it becomes coarser, the feldspar and magnetite grains can be distinguished taking on a salt and pepper texture. It resembles a gabbroic intrusive in places, but it is kept within the volcanic package for the time being because, in the core from hole RL 95-3, it shows gradational contacts rather than intrusive contacts.

Breccias and Agglomerates: Angular fragments 1-5cm in diameter in an aphanitic calcareous volcanic matrix with reddish hematite alteration. So far, it was only identified in one outcrop south of the Thelma shaft

Tuffs: Included in the legend because it has been previously reported, but not encountered during this program.

SEDIMENTS

Conglomerate: The conglomerate units vary with the locality. In the Thelma area, the unit is immature, polymictic with round pebbles and boulders of andesite, diorite and gabbro composition varying in size from 1 cm up to 30cm, but generally less than 10cm in diameter. The matrix appears gritty and is highly calcareous and occurs immediately west of the limestone bed. On the Eve 3 and Lucky Mike claims the sedimentary beds have been intensely altered to carbonate alteration. On the Lucky Mike claim, along the road, the unit is polymictic with rounded to sub-rounded pebbles of all sizes up to 10cm in diameter. The matrix appears gritty although highly altered. On the Eve 3 claim, the original composition is destroyed and the texture barely perceptible. The fine pyrite of the carbonate alteration tends to rim the pebbles which are generally less than 2cm in diameter.

Sandstone and Siltstone: On the property, this unit is usually host to intense carbonate alteration destroying the original texture.

Limestone: The largest lenses identified so far occurs at the Thelma shaft. It is exposed for approximately 35m wide and 175m long. In the exposed outcrops it is medium grey, unaltered, and massive. Another small lens occurs on the Lucky Mike claim, along the road and has been subjected to intense alteration.

INTRUSIVE

Quartz Monzonite: Massive, medium grey and fine grained, with approximately 15% of feldspar porphyries of 2 types: a waxy yellowish white, up to 1 cm in diameter, generally <0.5 cm, and a greyish white, zoned and more translucent than the first one. It also contains 2% of euhedral quartz crystals. The groundmass (83%) is magnetic and formed of equal amounts of feldspar and an acicular, pale - medium green mafic mineral, fine grained with a few magnetic crystals 1 mm in diameter.

ALTERATION

Although numerous types of alteration occur throughout the property, most of them occur on a small scale. The carbonate and magnetite alterations, however, are prominent, wide-spread and are likely to be spatially related to known zone of mineralization.

Carbonate: Usually bleaches the original rock to a pale grey or beige colour, accompanied by fine disseminations of pyrite varying from 1 to 5%. Its pervasive mode destroys the original texture as the intensity increases. The iron content is responsible for its rusty orange weathering. It tends to occur in the sedimentary packages, although not exclusively.

Magnetite: This alteration occurs as disseminations at lower intensity, but can totally replace the original rock into a black, hard, aphanitic rock at high intensity. It tends to affect the volcanic units.

MAPPING

Lucky Mike Claim Road Area: A section of highly carbonate altered, rusty weathering sediments outcrops along the road between the Lucky Mike showing and the Old Alameada shaft (Figure 5). They consist of a limestone, a sandstone and a conglomerate unit. The texture is mainly destroyed by the intensity of alteration, but the pebbles of the conglomerate units can still be distinguished on the weathered surface. It is polymictic with sub-rounded to rounded pebbles of all sizes up to 10cm in diameter. The matrix appears gritty.

Old Alameada No 2 Area: The ridge between the road and the Old Alameada No 2 winze consists of aphanitic to fine grained mafic volcanic with moderate to high magnetite alteration (Figure 5). The magnetic outcrops are bound by recessive lineaments oriented at 154 and 105 degrees. The winze is filled with water, but the portal shows mafic volcanics hosting three different shears approximately 20cm wide. They are oriented $002^{\circ}/10^{\circ}$, $285^{\circ}/30^{\circ}$ and $215^{\circ}/50^{\circ}$. The shear zones host small quartz veinlets 2-10cm wide with minor pyrite along the selvages.

Thelma Shaft Area: Mapping extended south and west from the Shaft (Figure 6). The rocks from the Thelma dumps were partly sorted. The north dump consist mainly of iron carbonate altered mafic volcanics, hornfelsed to various degree and showing a brown weathering, minor limestone, blocks of white and grey quartz veins with blebs of arsenopyrite and pyrite,

The rocks from the south dump consist mainly blocks of intense carbonate alteration with a patchy texture and blebs of fuschite and chlorite. They weather rusty brown and tend to break down and crumble to small pieces.

The mineralization occurs at the eastern contact of the massive limestone lens. Towards the west, the limestone is flanked by a polymictic boulder conglomerate with volcanic and intrusive pebbles and boulders in a calcareous, gritty matrix. The conglomerate is in contact with a volcanic package. This contact is either covered or obliterated by intense magnetite alteration.

Eve 3 Gossan Area: The gossan was mapped along a logging road which crosses the stratigraghy (Figure 7). The area consists of a series of mafic volcanic, aphanitic, porphyritic and medium to coarse grained, with inter-layered sediments, mainly some narrow conglomerate units with minor sandstones. One exposed volcanic-sediment contact is sheared. All structural measurements, contacts, lineaments, change in alteration, have a N-S orientation and appeared subvertical. The only exception to this statement being a magnetite band (dyke?) crossing the stratigraphy at a 015° orientation.

The magnetite and carbonate alterations also appears to occur in alternating bands oriented N-S. The disseminated pyrite and iron content of the carbonate alteration causes the rusty orange weathering of the gossan. The conglomerate beds show the most intense carbonate alteration indicating that the fluids most likely traveled along the contacts. Magnetite mostly occurs as disseminations, but the area east of diamond drill hole RL 95-4 shows intense, pervasive, aphanitic magnetite alteration.

Diamond drill hole RL 95-3 was relogged. The lithologies, magnetite and carbonate alterations are plotted on the cross-section, Figure 8. The log is presented in Appendix I.

Tolman Lake Area: The Sunshine – Zone 2 mineral occurence was visited (Figure 5). It consist of a large breccia zone striking 065° with a 30° SE dip as indicated by a 45cm thick quartz vein in the middle of the brecciated zone. The quartz vein contains pale grey silicified rock fragments and shows re-brecciation and re-cementation with calcite. The breccia itself is formed by angular rock fragments cemented by a quartz matrix. The fragments are 1-5 mm apart. It is also crackle brecciated with quartz veinlets 0.5-2 mm wide. Sulphide mineralization consists of black sphalerite, lesser charcopyrite, bornite, disseminated pyrite, and traces of galena. The quantity varies from massive in places to pods in others. The sulphides occur both in the matrix and as replacement of the fragments. This breccia has an apparent width of 7.5m and is exposed for approximately 15m. Six grab samples, A990804-1 to 6 were collected from this zone. As an example, sample A990804-6 returned 17.9 g/t of copper and 171.6 g/t of zinc. Sample descriptions are included in Table 4 and results in Table 5.

There are several bulldozer trenches between Zone 1 and Zone 2. Most of them are slumped and overgrown. A sample, M-23, was taken from a small outcrop in one of the trenches. It consists of strongly carbonate altered mafic volcanic.

The creek above the adit of Sunshine – Zone 1 was mapped. The rock consist of mafic volcanics on the south side of the creek and a large mineralized quartz vein with lesser crystalline calcite on the north side. The mineralization consists of various amounts of sphalerite, chalcopyrite and galena. Samples M-24 and M-25 (Table 4) were collected from this zone. The contact is oriented 50 o to 60 o. The quartz vein shows several sub-vertical slip planes oriented N-S.

The Sunshine – Zone 1 adit is inaccessible at this time, but a silt sample taken at the portal returned 650 ppb of gold and 4.4 g/t of zinc. A chosen sample of breccia from the tailings, M-26, returned 7 g/t of silver, 14.5 g/t of lead and 40.0 g/t of zinc. The breccia is similar to that of the creek bed with matrix supported angular fragments of altered volcanic rock, of massive sulphides, mainly sphalerite with lesser chalcopyrite, and of quartz. There is also remobilization of the sulphides, mainly galena, around some of the fragments. Chalcopyrite and pyrite occur as disseminated grains throughout.

SAMPLING

Grab samples were collected from outcrops showing either sulphide mineralization, intense alteration or brecciation and veining. In total, 25 rock samples and two silt samples were collected and sent to Rossbacher Laboratory Ltd. for 28 element ICP and gold by AA analysis.

A sample description is provided in Table 4. Complete analysis results are presented in Table 5 with the Laboratory Certificate included in Appendix II.

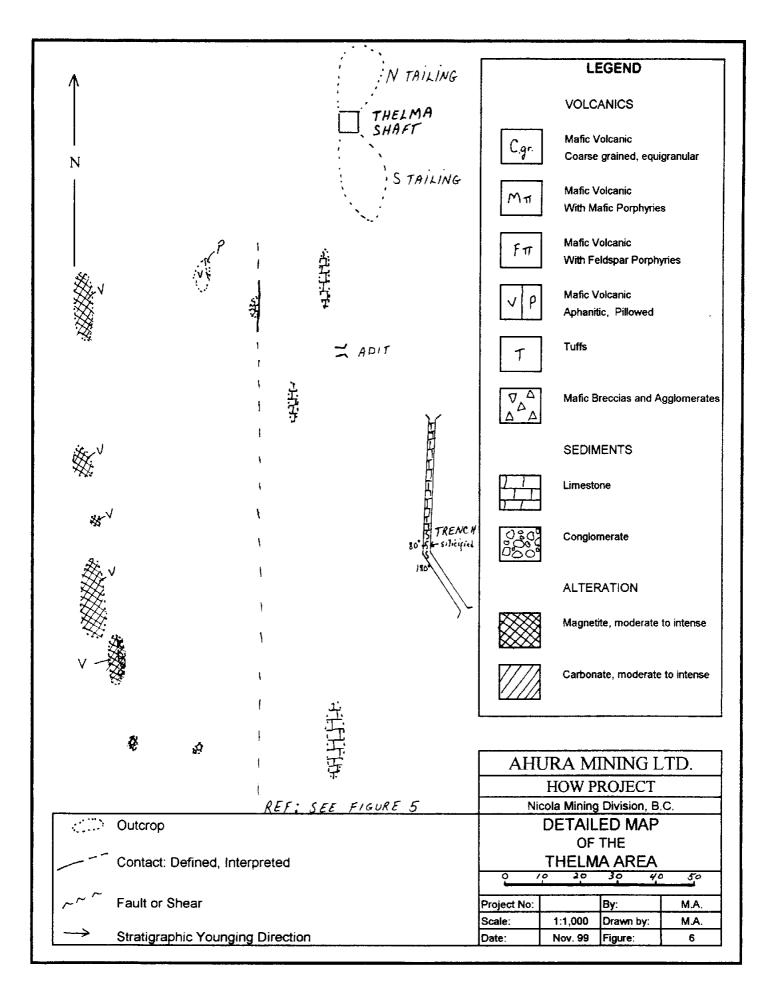


TABLE 4SAMPLE DESCRIPTION

SAMPLE LOCATION NUMBER		TION	DESCRIPTION	MINERALIZATION
	AREA	CLAIM		
990701	Fence Line	HOW 9	Conglomerate – Ghosts of pebbles barcly visible in places. Pale greenish-grey carbonate alteration.	.5-1% disseminated pyrite grains 0.5mm in diameter.
990702	Fence Line	HOW 9	Conglomerate – Medium-dark grey with sub-angular fragments (up to 2 cm in diameter, but generally < 1 cm) with partial weak carbonate alteration in a white sugary quartz and minor calcite matrix.	1% disseminated pyrite.
990703	Fence Line	HOW 9	Massive and aphanitic with a sugary texture. Medium to dark grey with weak carbonate alteration in patches.	1% disseminated pyrite.
990704	Fence Line	CORONA	Massive and aphanitic with a sugary texture. Dark grey and magnetic.	2% pyrite, finely disseminated and in fractures
990705	Fence Line	HOW 9	Massive and aphanitic with a sugary texture. From medium - dark grey to very pale grey with patchy carbonate alteration. Chlorite halo around some of the pyrite blebs and along the small fractures	1-2% pyrite, finely disseminated and in fractures. Trace chalcopyrite.
990706	Fence Line	HOW 9	Massive, aphanitic and slightly magnetic. Chlorite along small fractures with minor carbonate alteration expanding 1 cm from the fractures	1% disseminated pyrite throughout.
990801	Eve Gossan	EVE 3	Fine grained, massive, dark grey with a brownish to reddish tint.	0.5-1% pyrite disseminated and in fractures.
990802	Eve Gossan	EVE 3	Conglomerate. Ghost of rounded fragments < 1cm in diameter. Pale to medium grey, strongly carbonate altered.	3% finely disseminated pyrite throughout.
990803	Eve Gossan	EVE 3	Conglomerate. As 990802 with pebbles more visible. Pale to medium grey, strong carbonate alteration.	5% finely disseminated pyrite in matrix only.
A990804-1	Power Line Trench	ANDY 2	Grey quartz.	20% fine grained, massive and disseminated pyrite.
A990804-2	Power Line Trench	ANDY 2	White and grey sugary quartz.	2% specs of black sphalerite, traces of disseminated chalcopyrite and bornite.
A990804-3	Power Line Trench	ANDY 2	White and grey sugary quartz.	60% massive black sphalerite, with finely disseminated pyrite in patches and traces of chalcopyrite and bornite.
A990804-4	Power Line Trench	ANDY 2	White and grey sugary quartz with a few late cross-cutting quartz veinlets 1-2mm wide.	60% massive black sphalerite, with 1% chalcopyrite in small blebs evenly distributed.
A990804-5	Power Line Trench	ANDY 2	Hematized rock fragments in a grey quartz matrix	Matrix contains patches of massive tetrahedrite (60%) with 2% pyrite and traces of chalcopyrite and bornite.
A990804-6	Power Line Trench	ANDY 2	White and grey sugary quartz with minor red rock fragments.	30% black sphalerite blebs, 5-10% pyrite blebs and traces of chalcopyrite and tetrahedrite.
M 9	Road Cut	HOW 11	Andesite. Hornfelsed, dark greenish-grey, aphanitic with a weak foliation.	Disseminated pyrite blebs in places <0.5%
M 11	Road Cut	HOW 11	Strong carbonate alteration, bleached to pale grey, original texture	Finely disseminated pyrite in variable amount 1-5%

SAMPLE NUMBER	LOCATION AREA CLAIM		DESCRIPTION	MINERALIZATION
			destroyed. (Probably a fine grained sediment)	
M 12	Road Cut	HOW 11	Conglomerate. Polymictic, matrix supported with sub-rounded to rounded pebbles of variable sizes up to 10cm in diameter. Pale grey, texture moderately to highly destroyed by carbonate alteration, weakly calcareous.	Minor finely disseminated pyrite.
M 20A	Eve Gossan	EVE 3	Crushed rock from a 3m wide shear zone. Strong carbonate alteration and clay alteration in places.	3% disseminated pyrite.
M 20B	Eve Gossan	EVE 3	Conglomerate. Rounded to sub-rounded pebbles up to 5cm in diameter but generally <1cm. Pale grey with strong carbonate alteration. Matrix is calcareous in places.	3% disseminated pyrite.
M 23	Andy Bulldozer Trench	ANDY 1	Andesite with <1% mafic grains and small amygdales. Pale grey with strong carbonate alteration. Highly fractured and weathered	Weathered out pyrite.
M 24	Tolman Showing	ANDY I	White quartz with lesser crystalline calcite	Variable amounts of sphalerite, chalcopyrite and traces of galena.
M 25	Tolman Showing	ANDY I	Massive sulphide pod from a larger quartz vein. 1% Fe-carbonate grains.	Massive galena pod approximately 30cm in diameter. 98% galena, 1% chalcopyrite.
M 26	Tolman Tailings	ANDY 1	Breccia of matrix supported angular fragments of altered volcanic host rock, of massive sphalerite with lesser chalcopyrite, and of quartz in a white calcite matrix.	Sulphide fragments, plus remobilization of some of the sulphides, in particular galena, around some of the fragments. Chalcopyrite and pyrite occur as dissemination anywhere throughout the breccia <0.5%
99701		HOW 1	Silt sample	
99702		HOW 1	Conglomerate with larger, sub-rounded pebbles (up to 2cm in diameter) altered and bleached to pale grey. Interstitial pebbles vary from 1 to 4mm in diameter in a grainy grey quartz matrix.	No visible sulphides.
T-silt	Tolman Adit	ANDY 1	Silt sample	

TABLE 5SAMPLE RESULTS

Sample	LOCATION	PPB	РРМ	z	PPM I	PPM I	PPM	PPM	2	PPM	PPM	PPM	PPM	ž	21	PPM	ž	PPM	PPM	21	PPM	РРМ	PPM	PPM	2	PPM	ž	PPM	PPM	PPM
Name		A4 AA	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	κ	La	Mg	Мь	Мо	Na	Ni	P	РЬ	SЪ	Si	Sr	Ti	¥	¥	Zn
M 9	HOW12	20	.4	5.56	12	275	.6	<3	2.56	.9	22	168	26	4.09	1.23	<1	3.02	821	<1	.53	55	1743	10	11	.04	192	.18	113	<2	263
M 11	HOW12	25	.2	1.00	11	68	.5	<3	2.83	<.5	10	24	30	2.69	.19	7	1.03	785	d	.03	12	886	7	7	.05	38	<.01	39	<2	92
M 12	HOW12	5	.2	1.12	28	99	.4	(3	2.70	<.5	8	17	44	2.30	.17	3	1.03	700	<1	.05	8	1141	9	<2	.04	139	<.01	27	<2	91
M 20A	EVE3	20	.2	1.27	<2	80	.4	<3	.58	<.5	3	50	22	3.68	.39	<1	.36	798	<1	.09	2	1797	23	<2	.04	38	.02	13	<2	120
M 20B	EVE3	5	8.	4.09	10	40	.7	<3	1.89	≺.5	16	29	42	5.43	.77	<1	1.29	1711	<1	.25	9	1450	13	<2	.05	54	.05	63	<2	105
M 23	ANDY_BULL	5	.2	.56	8	1651	.4	<3	4.24	<.5	9	14	24	3.80	.27	<1	.35	2338	<1	.04	1	1052	18	2	.04	39	<.01	23	<2	178
M 24	TOLLMAN	20	15.8	.05	- 4	33	.3	<3	11.27	117.4	8	52	5600	.82	.05	<1	.02	2474	24	.03	7	1712	13478	<2	.02	57	<.01	9	<2	17670
M 25	TOLLMAN	40	90.6	.03	41	13	C 1	<3	<.01	35.6	11	16	10000	2.41	.02	<1	<.01	<10	8	.01	2	645 ;	21074	85	.03	<1	K.01	3	<2	4900
M 26	TAILINGS	10	7.0	.11	20	48	.4	<3	13.99	234.0	13	57	1350	.91	.13	<1	.04	2495	60	.03	4	3693	14522	<2	.04	59	<.01	10	<2	40000
T-SILT	TOLLMAN	650	.4	1.56	12	240	.5	<3	4.60	30.4	12	14	136	2.93	.11	<1	1.04	1075	3	.03	9	1414	<2	4	.04	136	.04	61	<2	4440
99701	TED_SILT	20	.2	1.19	9	123	.3	<3	.60	<.5	7	29	34	2.73	.05	3	.61	617	<1	.04	15	897	23	4	.04	30	.09	70	<2	71
99702	TED	15	1.2	.28	6	56	.9	<3	11.51	<.5	13	29	50	2.53	.18	<1	1.07	1562	<1	.04	23	1409	487	9	.04	117	<.01	32	<2	91
A990604-1	POWER LINE	110	7.6	. 12	113	24	.1	<3	<.01	19.0	32	102	164	5.30	.09	<1	.01	127	17	.01	4	690	10977	<2	.03	<1	<.01	7	<2	4776
A990804-2	POWER LINE	30	2.5	.07	307	20	<.1	<3	.52	295.0	- 14	198	2740	1.24	.04	<1	.10	379	65	.01	11	3324	115	31	.03	3	<.01	8	<2	38250
A990804-3	POWER LINE	140	11.6	.12	119	16	.†.	<3	.31	573.7	94	76	2000	5.65	.06	<1	,11	491	145	.01	8	6728	4254	<2	.03	2	K.01	6	<2	92920
A990804-4	POWER LINE	95	7.2	.06	2	17	.1	<3	.57	1124.4	163	98	1950	3.72	.05	<1	.07	554	211	.01	8	9428	492	<2	.03	2	<.01	10	<2	233000
A990604-5		50	12.6	.28	55	33	.2	<3	.07	257.5	- 44	88	15000	4.65	.09	<1	.23	584	65	.01	11	3685	1787	<2	.03	<1	<.01	16	<2	39800
A990804-6	POWERLINE	110	20.6	.09	154	20	.2	<3	.51	1055.8	134	103	17900	6.50	.08	3	.19	668	180	.02	14	8786	223	<2	.03	3	<.01	14	<2	171600
L990701	FENCE	5	1,4	.73	13	96	.4	<3	2.92	.9	24	10	70	6.69	.17	<1	1.60	2495	<1	.04	13	1119	15	3	.06	27	<.01	45	<2	175
L990702	FENCE	5	.4	1.74	23	113	.5	<3	4.26	1.4	16	52	72	3.15	.12	<1	.39	1483	2	.13	4	1447	8	6	.04	45	.02	19	<2	182
L990703	FENCE	5	1.4	3.48	<2	180	.6	(3	2.21	.6	31	32	3600	5.09	.46	<1	1.90	1269	<1	.09	16	1042	7	7	.03	28	.17	119	<2	249
L990704	FENCE	5	.2	1.72	7	77	.2	<3	.45	<.5	20	39	27	5.18	.80	<1	1.73	483	2	.15	8	1324	6	7	.03	26	.16	139	<2	118
L990705	FENCE	50	.4	3,42	15	65	.6	<3	2.23	۲.5	10	58	116	3.61	.24	<1	.39	310	<1	.25	4	2252	3	9	.03	52	.13	36	<2	51
L990706	FENCE	5	.6	3.92	9	136	.5	<3	2.17	8.	11	60	148	3.11	.85	<1	.91	513	<1	.25	3	2047	4	3	.02	48	.18	49	<2	59
990801	EVE3	5	1.0	2.66	6	83	.2	<3	.61	5.>	24	17	194	3.98	1.14	<1	2.06		<1	.19	11	617	6	10	.03	32	.18	117	<2	85
990802	EVE3	5	.6	1.81	11	17	.2	<3	.25	9.	21	66	57	4.90	.40	<1	2.62		<1	.10	25	461	9	11	.03	30	.11	140	<2	82
990803	EVE3	5	.2	2.28	20	26	.3	- (3	.68	ð.	18	40	68	6.14	.27	<1	2.04	1575	<1	.22	7	1106	11	7	.04	24	.16	126	<2	87

7.3 Geophysic

A few areas were selected to be surveyed by the BEEP MAT geophysical method. These areas are shown as shaded on Figure 5 and are: the Gossan zone of the Eve 3 claim, the Lucky Mike area, a portion of Swakum mountain, a large ridge west of the Old Alameada No 2 showing, the ridge west of the Thelma shaft, and a portion of the Corona, How 9 and 10 claims.

The BEEP MAT used was the BM4+ model. This equipment is a miniaturized electromagnetic survey instrument which instantly detects both conductive and magnetic outcrops hidden under up to two meters of overburden. It consists of a mat which is dragged on the ground and a processor which is worn by the technician. The detection threshold is preset at +10 Hz for the conductivity and -640 Hz for the magnetism. These thresholds can be increased by the operator, but this change is not recommended as it would result in a reduction of the penetration depth.

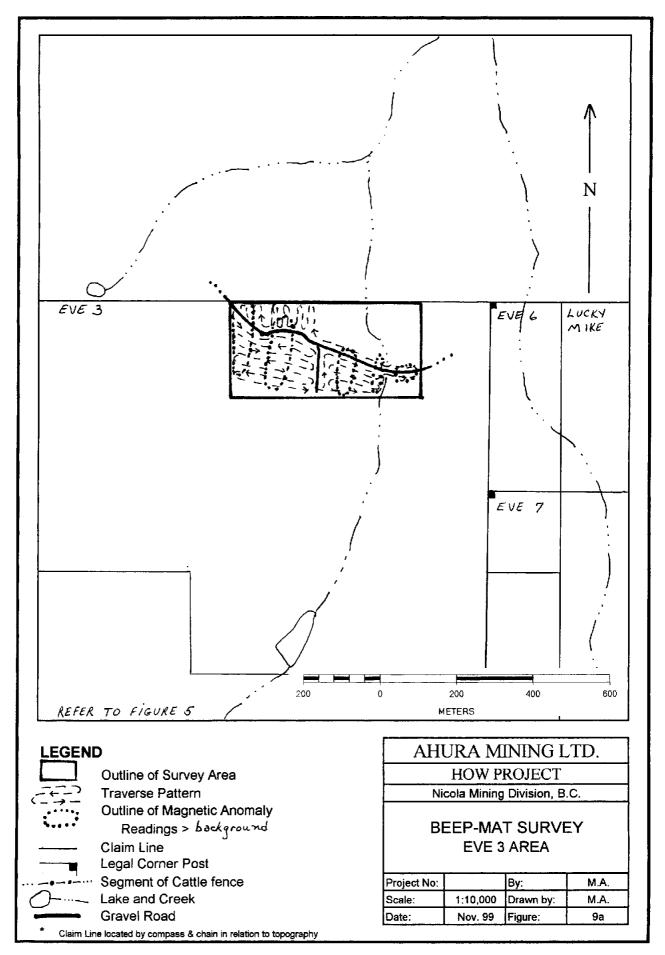
The instrument gives continuous readings and produces a sound when going over a conductor, or when an anomalous magnetic outcrop is detected. A survey area is traversed back and forth and the location of the conductor or magnetic anomaly is instantly mapped. This survey is meant to be conducted in areas where there is no marked grid or between the lines. The mode of utilization is included in Appendix III.

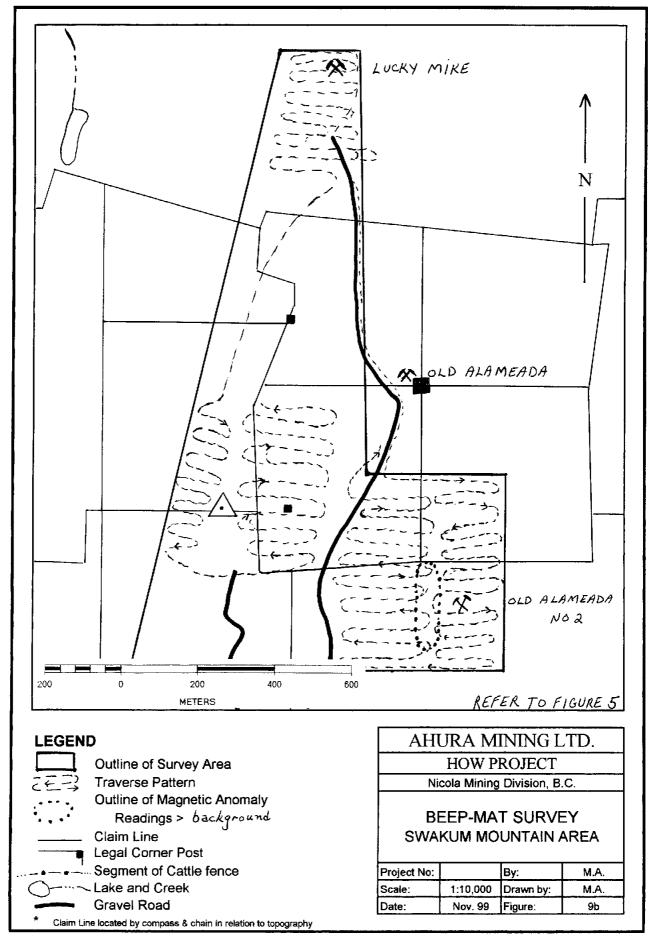
On the How Property, the back and forth traverses were made approximately 25 metres apart. The anomalies were investigated by the technician as they were found. A punctual anomaly usually indicates a boulder or metallic refuse. The continuous anomalies were flagged and outlined immediately, and later inspected by the geologist.

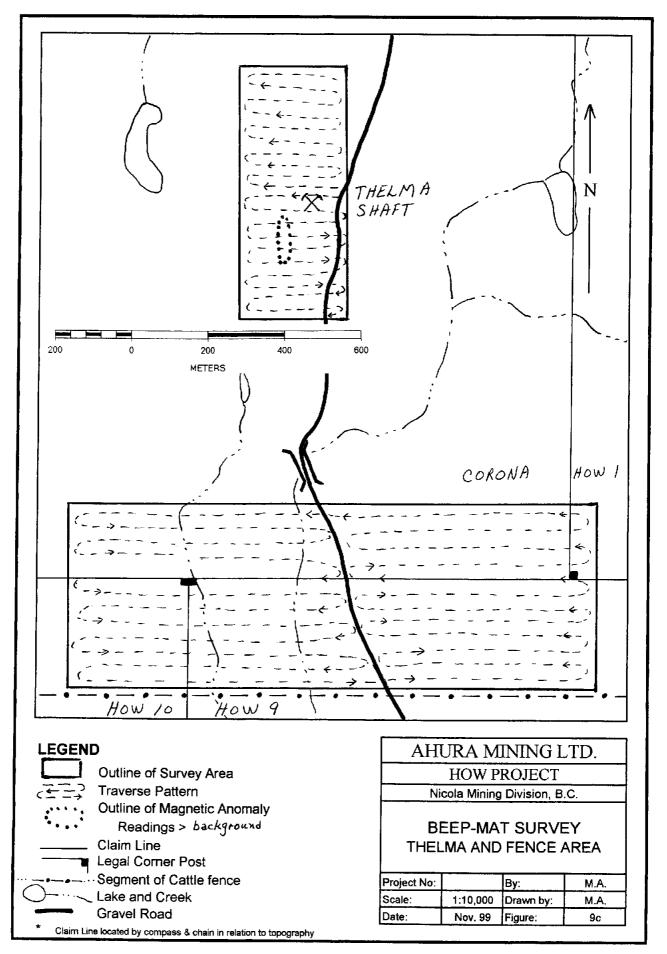
No conductors were identified on any of the surveyed areas, but three magnetic zones were detected: on the Eve 3 Gossan Zone (Figure 9a), on the ridge west of the Old Alameada No 2 showing (Figure 9b), and on the ridge west of the Thelma shaft (Figure 9c).

Mapping of these areas revealed strong magnetite alteration zones. In places, the intensity of the alteration caused the obliteration of the host rock. The magnetite in the intense alteration zones is generally massive and amorphous. In the moderate alteration zones, as for the ridge west of the Old Alameada No 2 showing, it occurs as disseminated specs. The magnetite alteration is usually hosted by andesitic volcanics, but also occurs in the conglomerates near the contact with the volcanics, particularly in the Thelma area. The Eve 3 Gossan zone shows bands of magnetite alteration in a north-south trend. The exposed magnetic bands are generally hosted by the andesites, although in the eastern portion of the mapped area, the alteration is so intense that the rock is a massive aphanitic mass and the protolith could not be identified.

This survey was successful in localizing magnetic outcrop areas and confirms that magnetite is an important alteration type. It should be followed by a systematic ground magnetometer survey as it has greater penetration depth and will give us information in the areas where there is no outcrop.







8 CONCLUSIONS

The HOW property lies within a favorable geological environment where the volcanic package of the Triassic Nicola Group has been compressed on both sides by two granodioritic batholiths causing regional folding and fracturing of the Nicola sequence. This prepared the ground for hydrothermal activity and mineral deposition.

Exploration/Mining activity within the HOW Group dates back to the 1900's. Work to date has shown that several of the historical workings contain small deposits of high grade silver, copper, lead, zinc and tungsten.

Historical work has been confined to the MINFILE occurrences, and the property remains open for reconnaissance exploration.

Significant gold and base metal results were returned from the property's exploration activities and warrant to be followed up.

Magnetite alteration occurs a short distance away from the mineralized zones. Carbonate alteration is associated to important structures.

The north-south fault/shear zones in the Swakum Mountain-Eve Lake-Sophia Lake areas, and 060 degrees fault/shear zones in the Tolman Lake area constitute important exploration targets.

Exploration on the HOW-CORONA property is warranted and an initial CDN\$100,000 work program is recommended.

9 RECOMMENDED WORK PROGRAM

Work performed on the property over the years, has been done by numerous companies, on disparate small grids laid out over different areas of interest. The soil geochemistry was done before the ICP technology was available and the samples were analyzed only for the commodity(ies) being the objective of the exploration program at the time. These different surveys cannot be compared to each other and, in most cases, gold was not analyzed for.

The recommended exploration program has for objective:

- to look at the property as a whole and to tie in the geology of the different zones
- to explore for all mineralization types and commodities including gold, base metals and tungsten
- to define the controls of the mineralization
- to confirm and increase the size and grade of the known mineralization zones
- to explore for new zones of mineralization

The initial program will consist of 70 kilometres of grid establishment in two grids, one over the Swakum Trend with a baseline oriented North-South, and one over the Tolman Lake Trend with a baseline oriented at 060 degrees (Figure 5). The lines will be spaced 200 metres apart with picket stations at 25 metre intervals.

The grids will be covered by a soil geochemical survey, ground magnetometer survey, along with geological mapping and rock sampling. The soil samples will be taken from the B horizon and analyzed by the 31 element ICP method and gold geochemistry Atomic Absorption method. The completion period is estimated at twenty-five days.

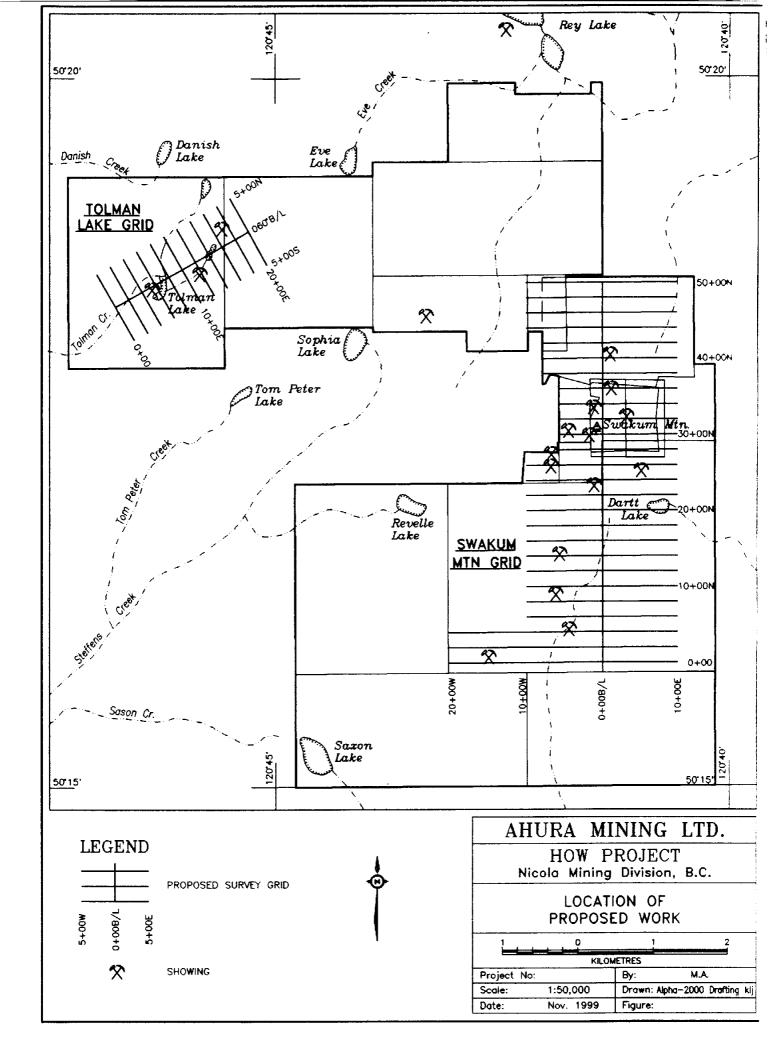
Further work will be contingent on the results of this initial work phase.

PROPOSED BUDGET FOR THE PHASE I EXPLORATION PROGRAM

The cost of the proposed work program is summarized below in Canadian Funds.

Mobilization/Demobilization	\$ 1,500
Camp and Support	\$ 10,250
Grid Preparation and Line Cutting	\$ 14,000
Soil Geochemical Survey	\$ 39,000
Ground Magnetic Survey	\$ 5,800
Geological Mapping	\$ 16,250
Rock Sampling	\$ 900
Technical Report	\$ 5,000
Contingency	\$ 7,300
TOTAL	\$ 100,000

21



10 COST STATEMENT

The cost statement for the 1999 field work program is detailed as follows:

Supervisor, Ted Hayes July 29 th and August 5 th	2 days @ \$600/day	\$ 1,200
•	to August 9 th for a total of 14 days	
Geologist (1), Marthe Archam	bault 14 days @ \$500/day	\$ 7,000
Technician(1), Larry Crittende		• • , • • •
	14 days @ \$350/day	\$ 4,900
Room & Board for 2 neonle	uly 27 th to August 8 th for a total of 13 days	
Room & Doard for 2 people, 5	26 days @ \$150/day/pers.	\$ 3,900
Off-Road 4x4 Truck Rental, ir	cl. mileage and insurance.	
	14 days @ \$150/day	\$ 2,100
Fuel	14 days @ \$35/day	\$ 490
BEEP-MAT Equipment Renta	1 July 30 th to August 8 th	
	10 days @ \$160/day	\$ 1,600
Geochemical Analysis	2 silt samples @ \$14/sample	\$ 28
	25 rock samples @ \$17.50/sample	\$ 437.50
Report		\$ 5,500
Communications		\$ 210
Miscellaneous & Consumables	•	<u>\$ 162.50</u>
TOTAL		\$27,500

11 CERTIFICATE OF QUALIFICATIONS

I, Marthe Archambault, of Surrey, British Columbia, hereby certify that:

- I am a Consulting Geologist with an office at #1601 13880 101st Avenue, Surrey, British Columbia.
- I graduated with a Bachelor's degree in Geology from the University of Montreal, Montreal, Quebec (1980) and a Master's degree in Geology from the University of British Columbia, Vancouver, British Columbia (1985).
- I am a member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration No. 19226.
- I have practiced my profession as an exploration geologist for the past 19 years.
- I have visited the HOW property between July 28th and August 9th 1999.
- I have no interest, direct or indirect, nor do I expect to receive any interest, in the HOW property or Ahura Mining Ltd.

Dated at Surrey, British Columbia this 04 day of November 1999.

FESSIC HOVINCE OF

Marthe Archambault, P. Geo.

M. Archambauli BRITISH OLUMBI SCIEN

12 **BIBLIOGRAPHY**

- Cockfield, W.E., 1961, Geology and Mineral Deposits of Nicola Map-Area, British Columbia, Geological Survey of Canada (G.S.C.) Memoir 249, pp. 59-65.
- Preto, V.A., 1979, Geology of the Nicola Group between Merritt and Princeton, B.C. Ministry of Energy, Mines and Petroleum Resources (MEMPR) Bulletin 69
- B.C. Ministry of Energy and Mines Assessment Reports: 25854, 25744, 24600, 24133, 22900, 21770, 18583, 16625, 15318, 15312, 15075, 15003, 14841, 141117, 14089, 12964, 12960, 12897, 12598, 12386, 12321, 11483, 11482, 10024, 9880, 9612, 9430, 9330, 8036, 7488, 7031, 7016, 6742, 6441, 6119, 4409, 4223, 3936, 136.
- B.C. Ministry of Energy and Mines MINFILE Database: 092ISE 027, 059, 094, 095, 096, 097, 098, 099, 100, 101, 102, 103, 104, 105, 106, 127, 128, 129, 160.

APPENDIX I DIAMOND DRILL LOG

RL 95-3

HOLE:	RL - 95 - 3	AZIMUTH:	105	DATE DRILLED:	July 2 1995
		DIP:	-60	DATE LOGGED:	July 31, August 1-2, 1999
CLAIM:	EVE 2				
		TOTAL DEPTH:	158,19 m.	LOGGED BY:	M. Archambault

		LITHOLOGY			ALTER	ATION	STRUCTURE	MINERALIZATION	
FROM	то	DESCRIPTION	FROM	то	TYPE	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
0.0	3.6	CASING			• • • • • • • • • • • • • • • • • • • •				
3.6	11.9	 Porphyritic andesite Massive, greenish aphanitic groundmass with 3% of 0.5 mm in diameter subhedral pyroxene crystals and less than 1% subhedral feldspar crystals 1 mm in diameter. Small amygdules in places 1-2 at mm in diameter 		4.6			Rusty fractures near surface		
			3.6	5.2	Silicification	2			
					Pyrite	3-4			
					Biotite	3			
					Chlorite	2			
			5.2	11.9	Bleached	2		9.2 - 10.5 brecciated	pyrite in small
					Carbonate	2		a bleach fragments 0.5-	fractures- 1%
					Biotite	2		5 cm in diameter in a	
					Ругіте	3		matrix of carbonate- silica-fuschite/chlorite- pyrite. 10.0 and 11.9 foliation 50 degrees	
11.9	12.7	Andesite, slightly porphyritic	11.9	12.7	Biotite	2		Massive	pyrite in small
		Strongly magnetic			Chlorite	1			fractures- 1%
					Carbonate	2			
					Pyrite Magnetite	4			
12.7	13.2	Andesite, 40% feldspar porphyries. Matrix is aphanitic and strongly magnetic.	12.7	13.2	Chlorite Pyrite		Feldspars replaced by I chlorite- carbonate		
13.2	20.0	Porphyritic andesite	13.2	20.0	Biotite	2		14.8-15.0 small shear	+

T		LITHOLOGY	[ALTER/	ATION	STRUCTURE	MINERALIZATION	
FROM	TO	DESCRIPTION	FROM	то	Түре	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
		Matrix is aphanitic with some shard-like mafic replaced by a lacked chlorite less	······		Carbonate Pyrite	2 5		zone, minor gouge- grinding.	
		than 1% and irregular cavities tr-the 2%, the feel the with quartz. Not magnetic.			Chlorite	J		13.5-18.0 calcite veinlets in fractures	
20.0	21.5	Andesite, 40% feldspar porphyries. Matrix is aphanitic and strongly magnetic.	20.0	21.5	Chlorite Pyrite Magnetite	1	Feldspars are replaced by chlorite- carbonate.		
21.5	24.4	Andesite, 40% feldspar porphyries. Not magnetic.	21.5	24.4	Biotite Chlorite Pyrite Fe-carbonate		Increase in Fe- carbonate in fault zone, with numerous calcite veinlets along fractures and fault planes	22.0-24.4 Fault Zone sub-parallel to core axis, ather slips oriented at 20, 45 and 65 degrees to core axis. Fault planes are generally less than 10 cm apart. 24.2-24.4 Crumbly with fault gouge.	
24.4	31.0	Porphyritic Quartz- Monzonite Massive, medium grey and fine grained, with approximately 15% of feldspar porphyries of 2 types: 1- Waxy yellowish white, up to 1 cm in diameter, generally <0.5 cm 2- Greyish white, more translucent than type 1 and zoned. Euhedral quartz crystals, hexagonal, 2% 83% groundmass is formed of equal amounts of feldspar and an acicular, pale - medium green mafic mineral, fine grained with a few magnetic crystals 1	24.4	31.0	Calcite	2-3	Chlorite alt of the mafic minerals. Calcite coated fractures. Groundmass is magnetic.		
		mm in diameter. Groundmass is magnetic	30.5	31.0	Carbonate Pyrite	33	Not magnetic.		

		LITHOLOGY		· · · · · · · · · · · · · · · · · · ·		RATION	STRUCTURE	MINERALIZATION	
FROM	то	DESCRIPTION	FROM	то	ТҮРЕ	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
31.0	32.7	Andesite with 10-40% of feldspar porphyries <2 mm in diameter. Strongly magnetic	31.0	32.7			Strongly magnetic	Broken contact, could be faulted. Minor slip surfaces in several orientation 40, 60, 80 to c.a. Calcite coated fractures.	Pyrite very fine is micro fractures with chlorite 0.5 1%
32.7	33.1	Andesite, porphyritic, progressively changes from feldspar porphyries to mafic porphyries. Matrix is dark and strongly magnetic.	32.7	33.1	Pyrite	3-4	Matrix strongly magnetic.		
33.1	42.3	Gabbro or Mafic porphyry Andesite Contains 5-20% black magnetite porphyries <1.5 mm in diameter. Matrix is very fine grained, medium green and also magnetic	33.1	36.2	Pyrite	3-4	Matrix strongly magnetic.		
			36.2	38.1	Carbonate Pyrite Chlorite	2 4 1	Matrix is magnetic.		
42.3	49.8	Andesite with various amounts 0-40% of feldspar porphyries. Matrix is aphanitic, dark green to black, magnetic	43.0	44.4			Massive, with black magnetic patches and dark green chloritic patches. Increase in hardness with magnetite content.		
		Porphyritic	44.4	45.0	Carbonate Pyrite	2 2	Not magnetic, progressive contacts of magnetic zones.		
			45.0	45.5			Massive, with black magnetic patches and dark green chloritic patches. Increase in hardness with magnetite		

		LITHOLOGY]		ALTERA	TION	STRUCTURE	MINERALIZATION	
FROM	TO	DESCRIPTION	FROM	то	TYPE	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
							content.		
		40% feldspar porphyries	45.5	46.1	Carbonate	2			
					Pyrite	3			
			46.1	47.5	Carbonate				
					Pyrite				
			47.5	49.8	Carbonate	3		47.5-48.7 Fault Zone,	Micro
					Clay	2		brecciation, fracturation,	fracturation with
					Pyrite	2		minor gouge, numerous	chlorite-pyrite
					Fe-carbonate	2	In places, spotty	slip orientations	
					Silica		Minor, spotty	48.7-49.8 Same with	
								less intense brecciation	
49.8	51.6	Andesite	49.8	51,6	Carbonate	3			
ļ		Aphanitic groundmass with 20%			Pyrite	2			
		greyish porphyries, 0.5 mm in diameter			Clay	1			
51.6	65.5	Andesite, with feldspar porphyries	51.6	52.5	Carbonate	3			Pyrite-Chlorite-
		51.6-52.5 - 25% coarse porphyries			Pyrite	3			Calcite on micro
		52.5-65.5 – 30-40% finer grained							fractures 0.5%
		porphyries							
		52.5-55.2 Overall greenish colour,	52.5	55.5	Carbonate	3			
		texture and small porphyries are partly			Pyrite	2			
		obliterated, gradational lower contact.			Chlorite	2			
		55.2 Small porphyries become visible							
		again, rock is pale grey with milky	1						
		beigy-white porphyries.							
			55.5	65.5	Carbonate	2		57.65-57.8Fault, clayey,	
					Pyrite	4-5		crumbly	
			incl		Carbonate	1	Not magnetic		
			61.9	63.4	Chlorite	2			
					Pyrite	3			
					Biotite	2			
65.5	66.5	Porphyritic Quartz- Monzonite			Calcite (of the	3-4		Upper contact is very	
		Massive, medium grey and fine grained,			matrix)			sharp and irregular with	
		with approximately 15% of feldspar						<1mm wide calcite	
		porphyries of 2 types:						stringer along it. (Most	

		LITHOLOGY			ALTE	RATION		STRUCTURE	MINERALIZATION
FROM	то	DESCRIPTION	FROM	то	TYPE	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
		1- Waxy yellowish white, up to 1 cm in				····		of it has been sampled,	
		diameter, generally <0.5 cm						only 3 cm long in the	
		2- Greyish white, more translucent than						box.)	
	-	type 1 and zoned.						Lower contact is sharp	
								and regular at	
		Euhedral quartz crystals, hexagonal, 2%						60 degrees to core axis.	
								Both contacts show a	
		83% groundmass is formed of equal						darker chilled margin	
	1	amounts of feldspar and an acicular,						approximately 10-15 cm	
		pale - medium green mafic mineral, fine						wide.	
		grained with a few magnetic crystals 1						Feldspar porphyry on	
		mm in diameter. Groundmass is						either side remains	
		magnetic						unchanged.	
66.5	74.6	Andesite	66.5	74.6	Carbonate	1-2			
00.5	/4.0	40% pinkish white feldspar porphyries,	00.5	74.0	Pyrite	3-4			
		0.5-1.5 mm in diameter, in a medium			Tyme				
		grey, aphanitic groundmass. Massive							
		71.0-71.8 Aphanitic, massive, medium	Incl.		Chlorite	1			
		grey.	71.0	71.8	Pyrite	3			
74.6	75.3	Dark grey, medium grained, magnetic	74.6	75.3	Epidote	2	Epidote -gradational		
/	10.0	30 cm from contact.	74.0	15.5	Pyrite	2	over 5cm.		
		so on nom condet.			Biotite		Silica – gradational		
					Silica		near lower contact.		
75.3	158.		75.3	116.	Carbonate	1-2	neur lower contdot.	95.9-96.1 Small shear,	
	19	Generally medium grey with slight		7	Pyrite	3		55 degrees to core axis -	
		variation in hue from pinkish grey to			Silica	2		Crushed, minor gouge	
		greenish grey, massive, medium						Station Bouge	
		grained, 30-40% feldspar porphyries <2			Or				
ļ		mm in diameter							
-					Chlorite	0-1	110.0-112.4		
					Pyrite	2	Magnetic in places		
					Silica	0-1			
		116.7-118.75 Contrast more prominent,	116.	118.	Chlorite	1			

		LITHOLOGY	T	····	ALTER	ATION	STRUCTURE	MINERALIZATION	
FROM	TO	DESCRIPTION	FROM	TO	TYPE	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
		Dark fine-medium feldspar porphyries.	7	75	Ругіте	1			
		Dark grey, magnetic when away from					i.		
		carbonate alteration (approximately 30			:		i		
		cm)				_			
			118.	119.	Clay	4		Shear Zone, numerous	
			75	4	Calcite	3		orientations, crushed,	
					Pyrite	3	· · · · · · · · · · · · · · · · · · ·	minor gouge	
		119.4-122.5 Contrast more prominent,	119.	122.	Chlorite	1			
		Dark fine-medium feldspar porphyries.	4	5	Pyrite	1			
		Dark grey, magnetic when away from							
		carbonate alteration (approximately 30							
		cm)							
			122.	141.			This zone is a mish-	Large, intense Shear	
			5	65			mash of several	Zone with numerous	
							forms of alteration.	slip planes in various	
							Some of the	orientation including	
							brecciated	sub-parollel to core axis.	
							fragments are	The rock is crushed and	
							silicified, other	cemented with calcite	
							sections are altered		
							to white clay. Other		
							alterations include:		
							calcite, Fe-		
							carbonate,		
							carbonate, epidote,		
							chlorite, and some		
							rare small reddish	}	
							dots <.5mm in		
							diameter ocuring in		
							clusters, possibly		
							hematite.		
			141.	144.	Patchy Silica	1		Part of the same shear	
			65	7	Carbonate	2		zone, but of lesser	
					Fe-carbonate	2		intensity	
					Calcite	2-3			

FROM	то	LITHOLOGY			ALTER	ATION		STRUCTURE	MINERALIZATION
FROM	10	DESCRIPTION	FROM	то	ТҮРЕ	INT.	DESCRIPTION	DESCRIPTION	DESCRIPTION
					Pyrite Clay	2-3	Decreasing with lesser shear intensity		
		144.7-1418.9 Contrast more prominent, Dark fine-medium feldspar porphyries. Dark grey, magnetic when away from carbonate alteration (approximately 30 cm)	144. 7	148. 9	Carbonate Pyrite Epidote	2 2 1	Of some of the porphyries	Numerous slip planes 0- 30 degrees to core axis. Core more competent than the previous zone. Calcite veinlet 1mm thick on slip planes.	
			148. 9	150. 6	Fe-carbonate Chlorite Calcite Clay	2 1-2 2 1		Shear Zone – Numerous slip planes, generally 70-90 degrees to core axis. Calcite veinlets 1mm thick along slip planes and fractures	
		150.6-153.9 Contrast more prominent, Dark fine-medium feldspar porphyries. Dark grey, magnetic when away from carbonate alteration (approximately 30 cm) Magnetic	150. 6	153. 9	Chlorite Pyrite	1			
			153. 9	158. 19	Carbonate Calcite Fe-carbonate Clay	1-2 2 2 1		153.9-157.2 Numerous calcite filled fractures and slip planes in all orientation from0 to 80 degrees to core axis. 154.6-155.14 Crumbled gouge/crushed zone	
	158. 19	END OF HOLE						B-B- Hubble Lone	

.....

APPENDIX II ANALYTICAL RESULT LABORATORY CERTIFICATE

2 <i>25 SPRIN</i> (5 <mark>B 3</mark> N1	HER LABO AGER AVE., 1 -6610 , Fx. 60	IURNABY, B.											Ahur Ste. (Vanc Ted H	302 - ouve	856	Hon		st.								27 24/0 27/0 Silt a	8/99	xck		
											Proj	ject:	HOW	Group)											Prep				
ERTIFICATE	OF ANALYSIS	:				9946	4.icp																			ICP				
Sample	LOCATION	PPB	PPM	*	PPM	PPM	PPM	ррм	ż	PPM	PPM	PPM	PPM	z	×	PPM	2	PPM	PPM	X	PPM	PPM	PPM	PPM	z	PPM	×	PPM	PPM	PPN
Nome		AN AA	Ag	A	-	Bə	Be	Bi	Co	Cd	Co	Cr	Çu	Fe	ĸ	Ĺa	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Si	\$r	Ti	۷	W	Z
M 9	HOW 12	20	.4	5.56		275	.6	<3	2.56	.9	22	168	26	4.09	1.23	<1	3.02	821	<1	.53	55	1743	10	11	.04	192	.18	113	ŝ	263
M 11	HOW12	25	.2	1.00		68	.5	<3	2.83	<.5	10	24	30	2.69	.19	7	1.03	785	d	.03	12	886	7	7	.05	38	<.01	39	<2	92
M 12	HOW12	5	.2	1.12		99	.4	<3	2.70	<.5	8	17	44	2.30	.17	3	1.03	700	<1	.05	8	1141	9	<2	.04	139	<.01	27	<2	9
M 20A	EVE3	20	.2	1.27		80	.4	<3	.58	۲.5	3	20	55	3.68	.39	<1	.36	798	<1	.09	2	1797	23	<2	.04	38	.02	13	<2	120
M 20B	EVE3	5		4.09		40	.7	<3	1.89	5.>		29		5.43	.77	<1	1.29		<1	.25	9	1450	13	<2	.05	54	.05		a	109
M 23	ANDY_BULL	5	.2	.56	8	1651	.4	<3	4.24	<.5	ġ	14	24	3.80	.27	<1	.35	2338	<1	.04	<u>t</u>	1052	18	2	.04	39	<.01	23	(5	17
M 24	TOLLMAN	20	15.8	.05	4	33	.3	<3	11.27	117.4	8	52	5600	.82	.05	<1	.02	2474	24	.03	7	1712	13478	<2	.02	57	<.01	9	<2	1767
M 25	TOLLMAN	40	90.6	.03	41	13	K.1	<3	<.01	35.6	11	16	10000	2.41	.02	<1	<.01	<10	8	.01	2	645 :	21074	85	.03	<1	<.01	3	<2	4904
M 26	TAILINGS	10	7.0	.11		48	.4	<3	13.99	234.0	13	57	1350	.91	.13	ct	.04	2495	60	.03	4	3693	14522	<2	.04	59	<.01	10	<2	4000
T-SILT	TOLLMAN	650	.4	1.56	12	240	.5	<3	4.60	30.4	12	14	136	2.93	.11	<1	1.04	1075	3	.03	9	1414	<2	4	.04	136	.04	61	<2	444
99701	TED_SILT	20	.2	1.19	9	123	.3	<3	.60	(.5	7	29	34	2.73	.05	3	.61	617	<1	.04	15	897	23	4	.04	30	.09	70	(2	7
99702	TED	15	1.2	.28	6	56	.9	<3	11.51	5.>	13	29	50	2.53	.18	<1	1.07	1562	<1	.04	23	1409	487	9	.04	117	<.01	32	(2	9
A990804-1	POWER LINE	110	7.6	.12	113	24	.1	<3	<.01	19.0	32	102	164	5.30	.09	<1	.01	127	17	.01	4	690	10977	<2	.03	<1	<.01	7	<2	477
A990804-2	POWER LINE	30	2.5	.07	307	20	<.1	<3	.52	295.0	14	198	2740	1.24	.04	<1	.10	379	65	.01	11	3324	115	31	.03	3	K.01	8	(2	38256
A990804-3	POWER LINE	140	11.6	.12	119	16	.1	<3	.31	573.7	94	76	2000	5.65	.06	<1	.11	491	145	.01	8	6728	4254	<2	.03	2	k.01	6		9292
A990804-4	POWER LINE	95	7.2	.06	2	17	.1	<3	.57	1124.4	163	98	1950	3.72	.05	<1	.07	554	211	.01	8	9428	492	(2	.03	2	<.01	10	(2	23300
A990804-5	POWER LINE	50	12.6	.28	55	33	.2	<3	.07	257.5	44	88	15000	4.65	.09	d	.23	584	65	.01	11	3685	1787	<2	.03	d	<.01	16		39804
A990804-6	POWER LINE	110	20.6	.09	154	20	.2	<3	.51	1055.8	134	103	17900	6.50	80.	3	.19	668	180	.02	14	8786	223	<2	.03	3	<.01	14		17160
L990701	FENCE	5	1.4	.73	13	96	4	<3	2.92	.9	24	10	70	6.69	.17	<1	1.60	2495	<1	.04	13	1119	15	3	.06	27	<.01	45	(2	17
L990702	FENCE	5	.4	1.74	23	113	.5	<3	4.26	1.4	16	52	72	3.15	.12	<1	.39	1483	2	.13	4	1447	8	6	.04	45	.02	19	<2	184
L990703	FENCE	5	1.4	3.48	<2	180	.6	<3	2.21	.6	31	32	3600	5.09	.46	<1	1.90	1269	<1	.09	16	1042	7	7	.03	28	.17	119	(2	24
L990704	FENCE	5	.2	1.72	7	77	.2	<3	.45	<.5	20	39	27	5.18	.80	<1	1.73	483	2	.15	8	1324	6	7	.03	26	.16		<2	116
L990705	FENCE	50	.4	3.42	15	65	.6	<3	2.23	<.5	10	58	116	3.61	.24	<1	.39	310	<1	.25	4	2252	3	9	.03	52	.13	36	(2	5
L990706	FENCE	5	.6	3.92	9	136	.5	<3	2.17	ð,	11	60	148	3.11	.85	<1	.91	513	<1	.25	3	2047	4	3	.02	48	.18	49	(2	5
990801	EVE3	5	1.0	2.66	6	83	.2	(3	.61	<.5	24	17	194	3.98	1.14	<1	2.06	817	<1	.19	11	617	6	10	.03	32	.18	117	(2	8
990802	EYE3	5	.6	1.81	11	17	.2	<3	.25	.9	21	66	57	4.90	.40	<1	2.62	1427	<1	.10	25	461	9	11	.03	30	.11	140	(2	8
990803	EVE3	5	.2	2.28	20	26	.3	<3	.88	8.	18	40	68	6.14	.27	<1	2.04	1575	<1	.22	7	1106	11	7	.04	24	.16	126	æ	8

Certified By: Subong Yang

APPENDIX III

BEEP MAT

UTILISATION INSTRUCTION SHEET

BEEP MAT, model BM4+

The BM4+ is a powerful miniaturized electromagnetic survey instrument that instantly detects conductive and magnetic outcrops or bulders hidden under up to 3 meters of overburden. The targets are quickly delineated and sampled for assay to determine if they

are valuable showings or barren sulfide/graphitic conductors. The new Beep Snow can be pulled by a snowmobile or ATV at 30 km/hour and it can detect conductors up to 4.5 meters deep.

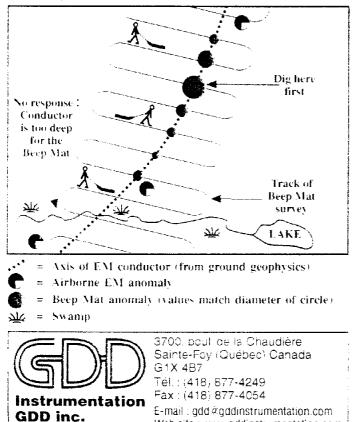
Stop Screening...



Start Finding !...

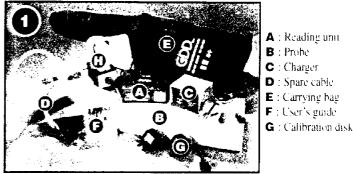


... by using a Beep Mat to sample conductors (sulfides, graphites, etc.) and choose among your assays the ones that warrant diamond drilling !



Web site : www.gddinstrumentation.com

Standard components of the Beep Mat



Option : H : Speaker with cable for snowmobile. Plate to protect the probe on rocky ground.



2. Organization of your day.



3. Initialization of the Beep Mat.



4. The all-terrain vehicle carries the drill and the dynamite while the Beep Mat surveys.

See over

MAT, model BN



5. Your Beep Mat heeps 1 A conductor is localized.



13. In the evening, the Beep Mat traverses and sampled sites of the day are drawn.

dynamite will clear it.

6. The overburden is deep No problem, 10 sticks of

12. Now that the conductor is sampled. go to find the next. one... When assay results are in, it is time to select sites for detailed trenching and/or diamond drilling.





7. It is done. There is only 4 inches of rusty. diff left over the sentites.





11. The GPS localizes the sampling site.



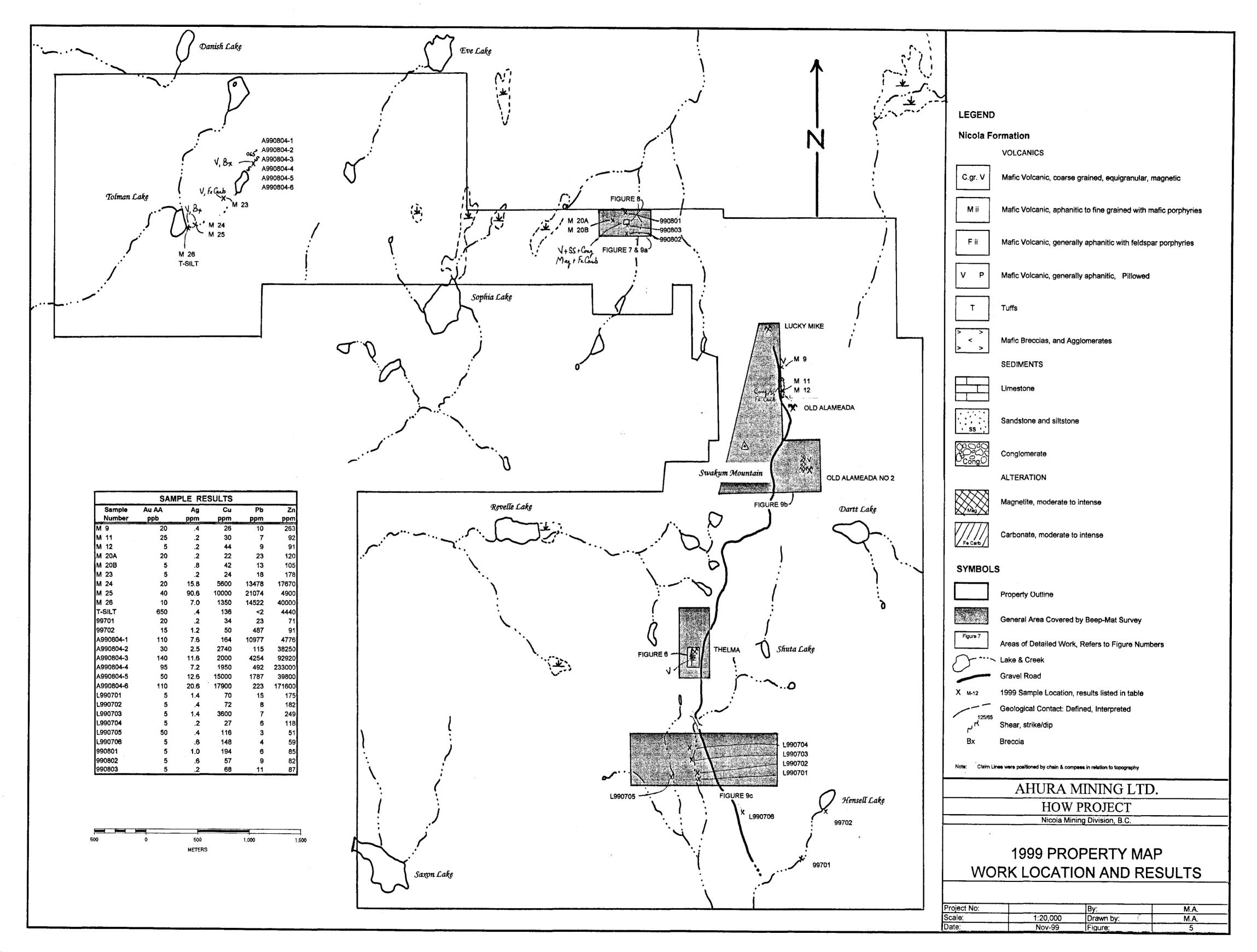
FO. Fresh sulfides are now examined A 10-kg sample is taken for assays.



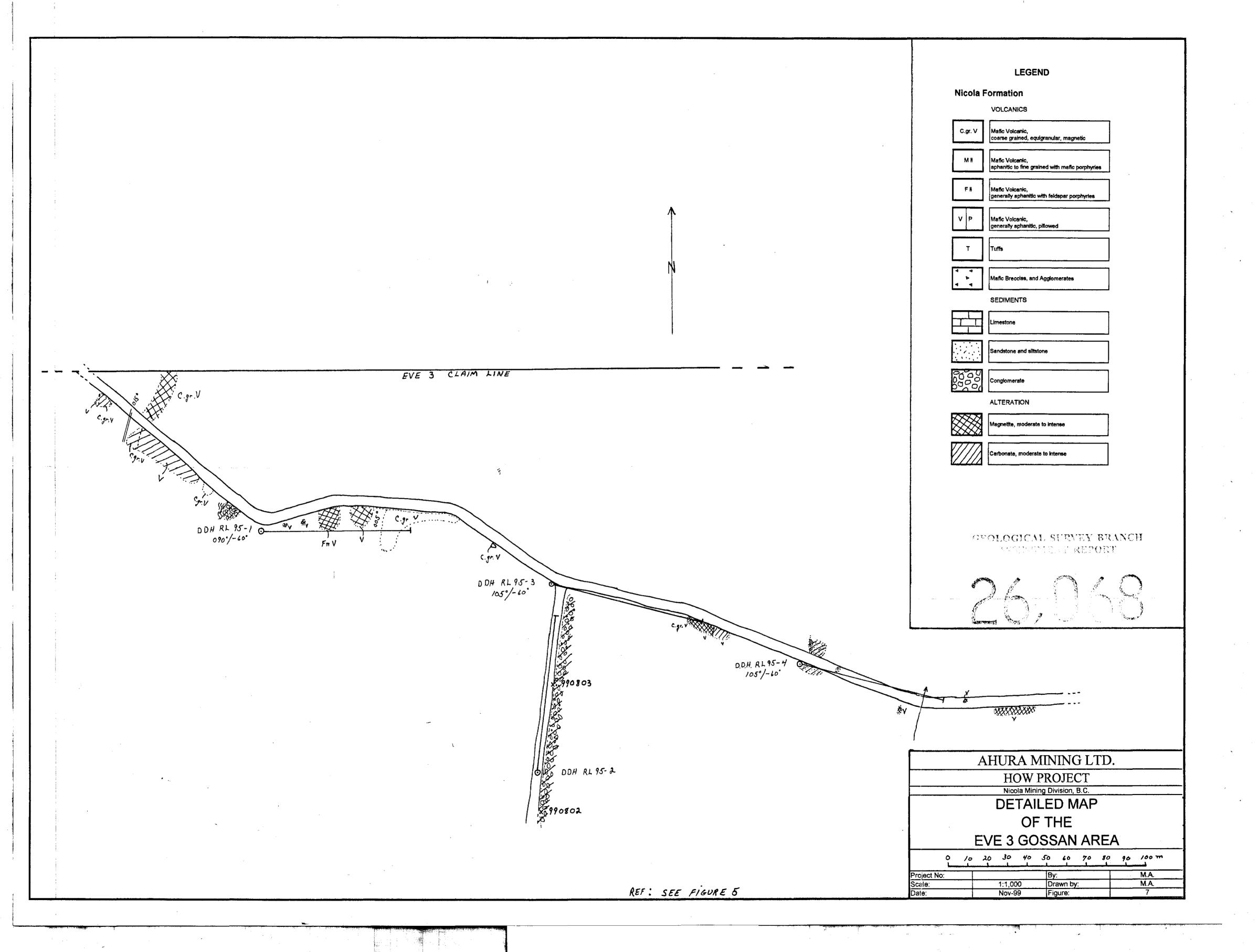


9. The fuse is attached to the primacord. Red ribbons mark the limit of the conductor.

8. Holes are drilled in the bedrock with a gaz plugger.



. العد



<u></u>	CARBONATE THOLOGY		Surface
105*			,
	FT		
		V	
	٤	50m FT	
			λ
		Fr Dant.	
		C.9" Fr	
· · · · · · · · · · · · · · · · · · ·	an		
		100 m	
			Fr · ·
			$\langle \rangle$
			150 m
			150m 158.19m

•			
	LEGE	ND	
	INTRUSIVE		
+	+ Quartz-Monzonite	······································	
Nico	a Formation		
	VOLCANICS		_
C.gr.	V Mafic Volcanic, coarse grained, eq	uigranular, magnetic	
MT	Mafic Volcanic, aphanitic to fine gra	ained with mafic porphyries	
Ftf	Mafic Volcanic, generally aphanitic	with feldspar porphyries	
VP	Mafic Volcanic, generafiy aphanitic	, pillowed	
т	Tuffs	·····	
4 4	Mafic Breccias, and	d Aggiomerates	
.	SEDIMENTS		
	Limestone		
	Sandstone and silts	stone	
$D_0 \sigma \circ c$			
00	Conglomerate		
		CAL SURVEN	
		A CONTRACTOR	
	ATTENDED OF		
		the second s	to and the set
·		MINING LT	TD.
······································		PROJECT ning Division, B.C.	
DIAM			SECTION
0	HOLE	ERL 95-3	40 50 m
Project No:		By:	M.A.
Scale:	1:500 Nov-99	Drawn by: Figure:	M.A. 8

e na prope