

**ANNUAL REPORT FOR YEAR ONE  
EXPLORATION LICENCE 7021 & 7127  
BURRUNDIE DOME AREA N.T.  
OPEN FILE  
20 NOVEMBER, 1990 TO 19 NOVEMBER, 1991**

**BY**

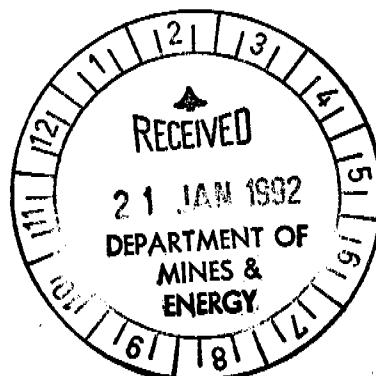
**IAN K. BUTLER B.APP.SC.**

**OF**

**AZTEC MINING COMPANY LIMITED**

**CR 92 / 049**

**PINE CREEK SD52-3  
Pine Creek 5270**



**DARWIN, NT  
January, 1992**

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## SUMMARY

EL 7021 and 7127 are part of an overall parcel of tenure referred to as the Burrundie Dome Project. The area is located 50 kms northwest of Pine Creek in the Emerald Springs area of the Northern Territory.

They are centred on a distinctive structural entity referred to as the Burrundie Dome within the Lower Proterozoic Pine Creek Geosyncline. The oldest sediments in the area are schists of the Wildman Siltstone, Mount Partridge Group. These are conformably overlain by sediments of the South Alligator Group and a flysch type sequence of the Burrell Creek Formation, Finnis River Group. The Wildman Siltstone and South Alligator Group were intruded by sills of Zamu Dolerite prior to regional deformation at about 1800 m y.

There are numerous recorded mineralisation types in the area, the most important ones being; stratiform base metal sulphide bodies eg. Iron Blow, Mt Bonnie; stratiform gold - sulphide bodies eg. Golden Dyke, Cosmo Howley; structurally controlled base metal and gold deposits eg. Pickfords; Zamu Dolerite hosted gold; greywacke hosted gold - quartz veins eg. Yam Creek; greywacke hosted tin - quartz veins eg. Hayes Creek; and quartz mica pegmatite hosted tin eg. Jimmys Knob.

The area has a well developed drainage pattern and abundant outcrop which resulted in geochemical exploration programmes being very successful for effectively exploring the area. It was extensively explored for gold in the main during the 1980's. The primary target being sought by Nicron Resources is base metal mineralisation occurring as stratiform sulphide orebodies or structurally controlled bodies. Work conducted by Nicron Resources to date has included literature research, data compilation, detailed rock chip sampling of gossans in geochemically anomalous areas, diamond drilling and a down hole EM survey. This work has located gossans that are highly anomalous in base metals. The best of these gossans was tested with one diamond drill hole below the base oxidation. A narrow (2m) zone of sulphides and carbonate alteration minerals with anomalous base metal levels was intersected down dip from the gossan.

The work programme for Year 2 includes further data collation, detailed mapping and follow up diamond drilling of the best geochemical/geological targets.

## 1. INTRODUCTION

Exploration Licence 7021 and 7127 are located immediately to the north of the Stuart Highway some 50 kilometres northwest of Pine Creek in the Emerald Springs area (Figure 1).

The topography is typically rugged with strike ridges of Zamu Dolerite and South Alligator Group sediments separated by alluvial valleys. Access into the area is via two dozer cleared tracks (Enclosure 1) that run northwards off the Stuart Highway. One of the tracks follows ridge lines and the other is restricted to the valley floors. Access to most of the licence areas would be impossible during the wet season.

ELs 7021 and 7127 were both granted to Nicron Resources Limited and they were taken out to explore primarily for base metal mineralisation in the Koolpin Formation of the South Alligator Group.

The aim of this report is to discuss the work conducted in the first year of tenure on both EL 7021 and 7127, present results and propose a work programme with an estimated budget for the second year of tenure.

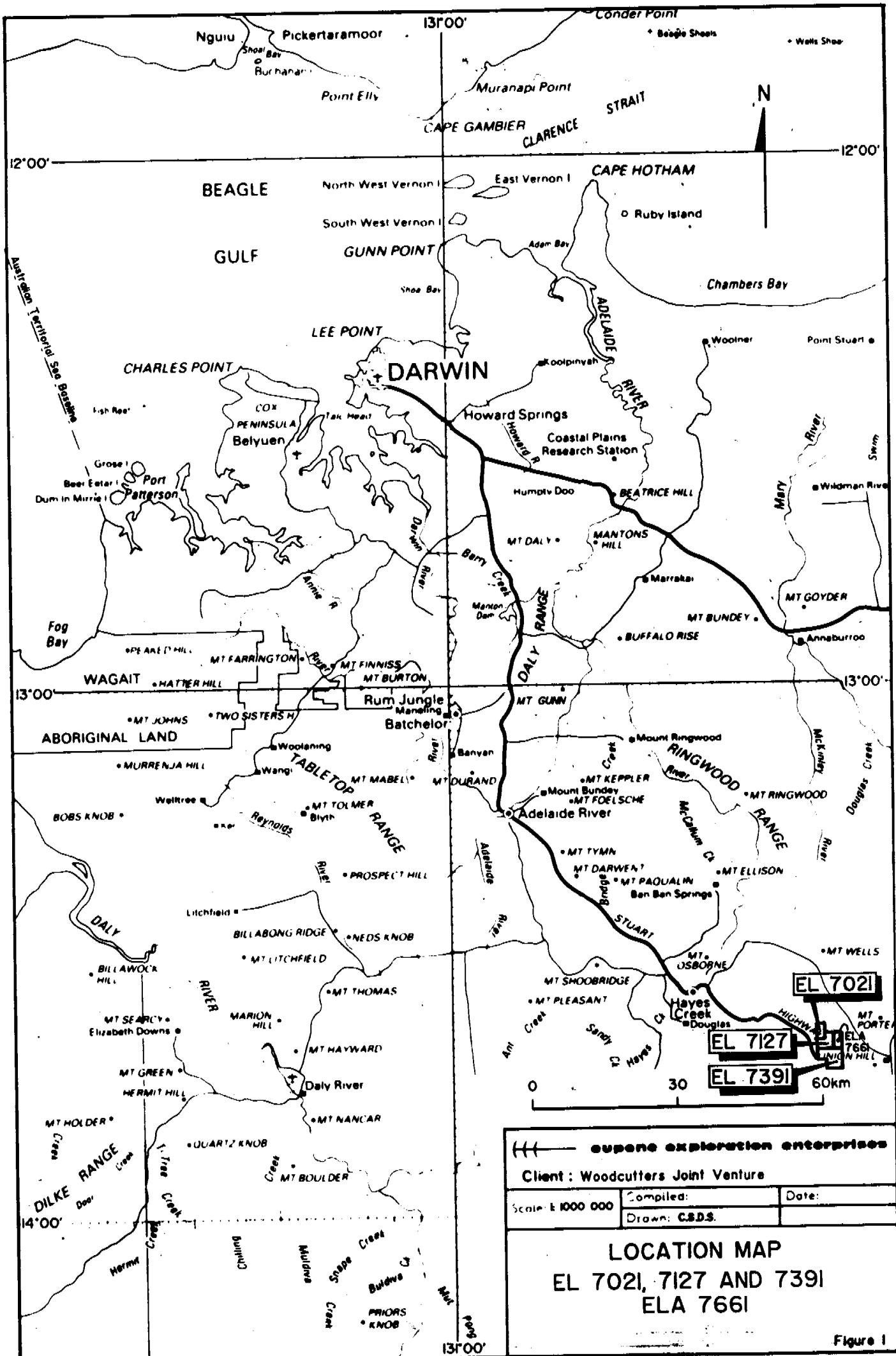


Figure 1

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## **2. TENURE**

Exploration Licence 7021 is comprised of 3 graticular blocks which were granted to Nicron Resources Limited (100 %) on the 23rd October 1990 for a period of four years. Exploration Licence 7127 comprising 2 graticular blocks, was granted to Nicron Resources Limited for period of three years on the 20th November 1990. Since the granting, Nicron Resources Limited has become a subsidiary of Aztec Mining Company Limited.

### 3. CONCLUSIONS

- 1) The Burrundie project area was extensively explored for gold targets primarily during the 1980's however the base metal potential of the Koolpin Formation particularly has not been fully tested.
- 2) Geochemical exploration programmes have proved to be the most effective means of initially exploring the terrain.
- 3) Stratiform gossan horizons and marker beds mapped in the South Alligator Group at Golden Dyke Dome can be recognized at similar intervals at Burrundie Dome.
- 4) A narrow sulphide and carbonate alteration zone intersected in YTD 1 has characteristics common to the stratiform Iron Blow, Mt Bonnie sulphide mineralisation and further work is required to test the economic potential of the gossan.
- 5) There are a number of targets highlighted by anomalous geochemistry and/ or favourable geology that require follow up exploration in Year 2 of tenure.

#### 4. PREVIOUS WORK

There has been a considerable amount of systematic exploration for gold dominantly, and to a lesser extent base metal mineralisation in the Burrundie Dome area in the past. A summary of previous work carried out in the area follows:

##### Geopeko 1977 - 1980

Geopeko explored the area for Iron Blow - Mt Bonnie mixed sulphide type deposits predominantly within the Mt Bonnie Formation (Gouleveitch 1977, 1978). Two magnetic anomalies were diamond drilled in an area referred to as the Saunders Creek Anomaly. No significant base metal or gold mineralisation was reported in these holes.

##### EL 3138 1982 - 1987 Geopeko - Anaconda Australia - CSR Limited

In 1982, a detailed stream sediment sampling programme and geological mapping with rock chip sampling of the Koolpin Formation was conducted by Geopeko to evaluate the potential for iron formation hosted gold and associated base metal mineralisation in the stratigraphically lower sections of the South Alligator Group. (Nicholson and Radford 1982).

In 1983 the geochemical anomalies generated by this work were partly evaluated by soil sampling. Only one anomaly (Horseshoe Valley) was recommended for further work however further detailed mapping and rock chip sampling downgraded the area. (Rolle and Radford 1983).

CSR conducted further stream sediment sampling programmes from 1985 to 1987 searching primarily for disseminated gold mineralisation within Zamu Dolerite. Detailed follow up of the stream sediment anomalies located the source of the anomalous gold, mainly in the Middle or Upper Koolpin Formation and in quartz veins. Mineral claims were pegged to cover some of these gold occurrences.

##### EL 4374 1985 - 1989 CSR Ltd - Cyprus Minerals Australia Ltd

Work carried out by CSR included reconnaissance geological mapping, rock chip sampling, low level (airborne) magnetics survey and a BLEG stream sediment sampling survey. The primary target of this exploration was dolerite hosted gold mineralisation. Cyprus carried out a Landsat Thematic Mapper interpretation followed up by two phases of rock chip sampling and geological mapping. Anomalous areas defined were either

covered by existing Mining Leases eg. Pickfords or were outside the EL boundaries.

**EL4817 CSR Ltd - Cyprus Minerals Australia Ltd**

A very similar programme of work to that conducted within EL4734 was carried out concurrently in EL4817 by CSR initially and later by Cyprus. Again the geochemically anomalous areas were restricted to existing Mining Leases/Claims or were outside the EL boundaries.

**EL6246 1988 - 1990 Oceania Exploration and Mining NL**

Work carried out comprised primarily of an airborne magnetics survey and interpretation. It was concluded that the magnetic response was a function of stratigraphy. Koolpin Formation was the highest. There were no obvious magnetic anomalies indicative of mineralised bodies.

**EL6529 1989 - 1990 Western Mining Corporation**

Exploration was aimed at the discovery of economic gold and/or base metal mineralisation within favourable structural / stratigraphic portions of the South Alligator and Mt Partridge Groups. Exploration activities were focussed to the area by a regional structural and stratigraphic assessment of the South Alligator Group. Work carried out included literature research, image processing, Landsat TM imagery, stream sediment survey and a little soil sampling. This work failed to define any areas worthy of follow up exploration.

**MCN 3142 - 3147, 3162 - 3167 (1989 - 1990) Carpentaria Gold Pty Ltd**

The claims were pegged to enclose an area in which a stream sediment gold anomaly had been located but not followed up by the previous EL holder, CSR Limited. The gold bearing potential of the Koolpin Formation and Zamu Dolerite was investigated by stream sediment and rock chip sampling. This detailed exploration failed to define any substantial gold targets.

**MCN 598 - 622 1983 - 1991 Nord Resources - Freeport - Oceania Exploration and Mining NL**

The exploration consisted of two main periods of activity. During 1983 - 1985 Freeport of Australia drilled six drill holes into selected geochemical targets in MLN 605. This drilling intersected low grade gold mineralisation and with anomalous arsenic

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plus base metal values. The best intersection was 1m @ 1.6 g/tAu and 6.3% As from 58 - 59 m.

During 1988 Oceania Exploration and Mining NL carried out geological mapping, rock-chip, soil and drainage geochemical surveys which highlighted five anomalous zones with potential for gold mineralisation. Each of these was associated with chert / BIF horizons in the Koolpin Formation. They were considered to have low potential for a significant gold resource.

## 5. GEOLOGY AND MINERALISATION

### 5.1 Regional Geology

#### 5.1.1 Previous Work

The regional geology of the area is described by Walpole et al (1968) and Needham, Crick, and Stuart-Smith (1980). Gouleveitch (1977, 1978 a) compiled 1:25,000 geology maps covering the Burrundie Dome Area. Nicholson (1982) mapped the Middle Koolpin Formation in detail and compiled interpretive 1:10,000 geological plans covering most of the Burrundie Dome area. These plans have formed the basis for subsequent work conducted by a number of different explorers who have only modified the geology in detail.

#### 5.1.2 General Geology

Apart from minor outcrops of Cretaceous Sandstone, all the major lithologies in the area belong to the Lower Proterozoic Pine Creek Geosyncline. The oldest sediments are schists of the Wildman Siltstone, Mount Partridge Group. These are conformably overlain by a heterogeneous sequence of mudstone, banded iron formation, volcanic chert and greywacke of the South Alligator Group, and a flysch - type sequence of the Burrell Creek Formation, Finniss River Group.

The Wildman Siltstone and South Alligator Group were intruded by sills of Zamur Dolerite prior to mid - greenschist facies metamorphism and regional deformation at about 1800 m y. The Cullen Granite which lies in the south of the area and the Prices Springs Granite which lies in the north of the area were intruded at about 1720 m y (Walpole et al (1968)).

### 5.2 Detailed Geology

A detailed description of the prospect geology stratigraphy and structure of Burrundie Dome Area has been presented in Comapny Annual Reports on Open File at the DME Library. These reports are Nicholson and Radford 1982 (CR 83/017), Heyworth 1988 (CR 88/245A), and Dreverman 1990. In addition, the stratigraphy of the Koolpin Formation is discussed in a paper, Controls on Gold Mineralisation in the Pine Creek Geosyncline, Nicholson and Eupene 1984. The reader is referred to these reports and paper for details.

### 5.3 Mineralisation

Numerous mineralisation types are recorded in the Cosmo / Burrundie area, the most important ones being greywacke hosted tin - quartz veins eg. Hayes Creek Mine; Quartz mica pegmatite hosted tin eg Jimmy's Knob; greywacke hosted gold quartz veins, eg. Yam Creek; stratiform base metal sulphide bodies eg. Iron Blow, Mt Bonnie and stratiform gold sulphide bodies eg. Golden Dyke, Cosmopolitan Howley.

Nicholson (1982) subdivided the stratiform base metal and gold mineralisation into three subtypes:

- (1) Massive sulphide type
- (2) Tourmalinitic type
- (3) BIF type

Other mineralisation types noted in the area are; structurally controlled base metals eg. Pickfords and gold in Zamu Dolerite. The gold is associated with quartz veins in chloritised dolerite (Nicholson 1984), with sulphide accumulation along sill margins or with disseminated pyrite and arsenopyrite in granophyric phases (Wilkinson, 1982).

## 6. WORK CARRIED OUT AND RESULTS

### 6.1 ROCK CHIP SAMPLING

The main target being sought within the area explored is base metal mineralization occurring as stratiform sulphide orebodies similar to Iron Blow, Mt Bonnie or structurally controlled mineralisation similar to Pickfords, Woodcutters, that is either stratabound or discordant within the South Alligator Group.

The area covered by EL's 7021 and 7127 has a well developed drainage pattern and abundant outcrop hence geochemical exploration programmes have proved to be very effective means for exploring. All of the available geochemical data from past surveys conducted in the area was collated onto a standard 1:10,000 base plan and areas of base metal anomalism noted. Each of these areas were traversed and gossanous outcrop was intensively rock chipped at 30 - 50 m intervals along the strike length. Most of the stratiform gossans are concentrated within the Middle Koolpin Formation and the stratigraphy is very similar to that observed in the Golden Dyke area. The discordant gossans were less predictable in their distribution. A total of 98 rock chips were collected within EL 7127 and 128 rock chips within EL 7021 during this program (see Enclosure 1 for sample locations). The rock chips were taken by collecting approximately 5 kgs of material as a selective grab sample within an area of 10 - 20 m<sup>2</sup>. The samples were submitted to Classic Laboratories in Darwin and analyzed for the following list of elements.

Element	Method	Detection Limit (ppm)
Cu	Perchloric/hydrochloric acid digest	20
Pb	and AAS finish	50
Zn	"	50
As	"	500
Ag	"	2
Bi	"	50
Sn	XRF	4
W	"	10
Au	Acid digest and AAS finish	0.01

The analytical results are in Appendix I. Generally, the only elements to consistently show geochemical character were Cu, Pb and Zn. The best base metal anomaly defined by the rock chip geochemistry was an outcropping stratiform? gossanous horizon within the Yellow Track Anomaly (see Enclosure 1 for location) where Zn levels to a maximum of 1.53% were obtained. The Cu and Pb levels were anomalous but subdued at the Yellow Track Anomaly.

The As levels were generally below the level of detection with occasional spot highs in excess of 1,000ppm. The Sn and W geochemistry showed character but levels were low. The Bi, Ag and Au levels are all very low and were below the level of detection in most samples.

During the wet season, it is intended to collate all of the rock chip geochemistry data and plot it using a computer to look for geochemical zonation patterns.

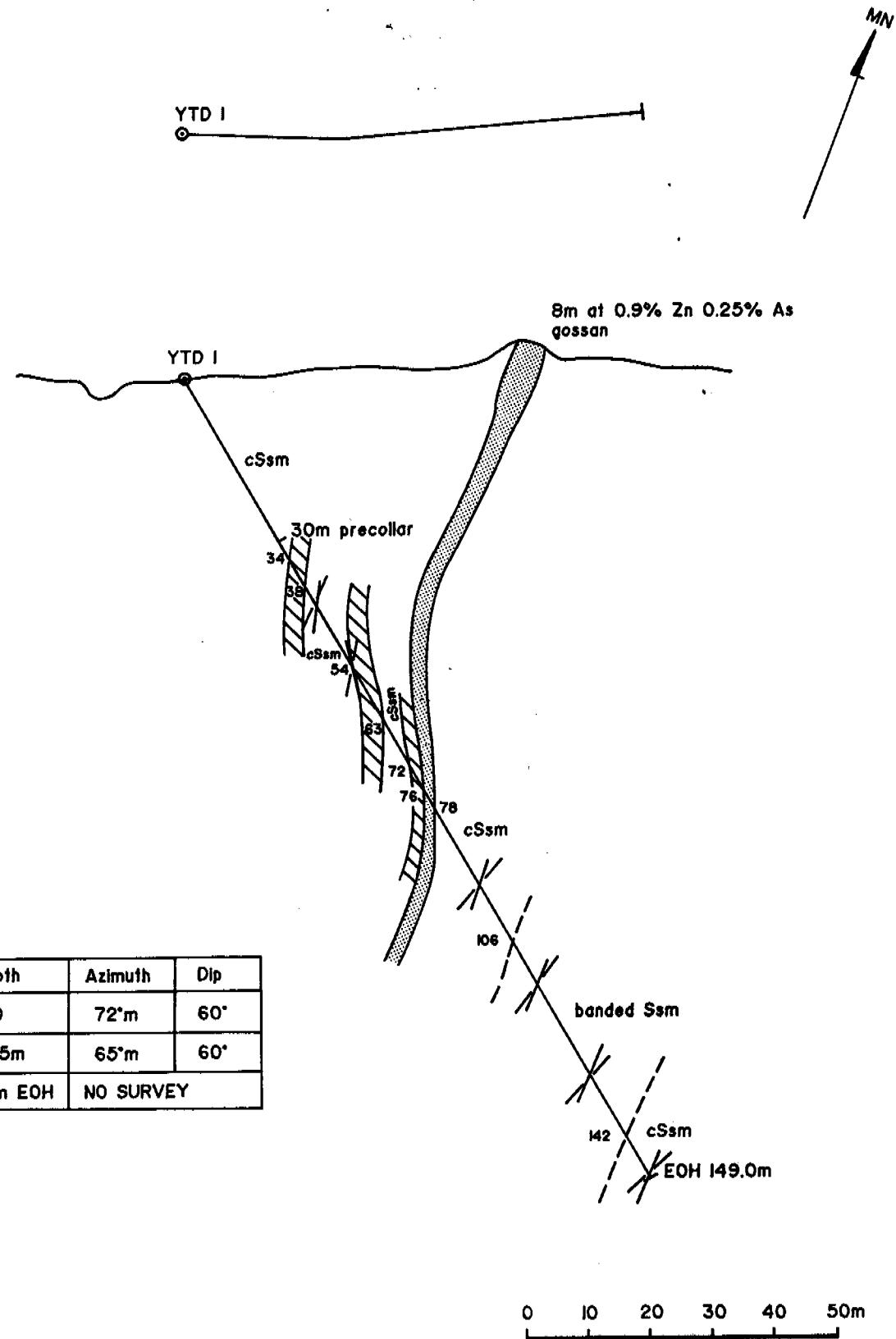
## 6.2 DIAMOND DRILLING      E.C. 7127

The gossan with high Zn in rock chips exposed at the Yellow Track Anomaly was tested with one diamond drill hole (YTD 1). The hole was percussion drilled to 30m as a precollar and diamond drilled (HQ Triple Tube) from 30.5m to 149.0m EOH. A total of two water bores (YTP 1 and YTP 2) were drilled (27m and 43m respectively) to provide water for the diamond drilling fluids. The drill hole locations are plotted on Enclosure 1. Each 1m interval from the water bores and precollar were split and analysed for the same suite of elements as the rock chips except for hole YTP 1 which was analysed for Cu, Pb, Zn, Ag, Fe, Sb and As at the Woodcutters Mine Laboratory. The analytical results and analysis of the water from the water bore YTP 2 are in Appendix II. The diamond drill hole was logged and the logs are in Appendix III.

The diamond hole was targeted to test a gossan with highly anomalous zinc levels just below the base of oxidation. It was drilled into the eastern limb of an overturned westerly dipping anticline (confirmed by bedding cleavage relationships in drill core) comprised of sediments mapped as Wildman Siltstone/Lower Koolpin carbonaceous mudstone. (See figure 2 - YTD 1 Drill Section). It is still not clear if the gossan is stratiform or discordant and further work is required to establish its relationship to the sediments. The drill core revealed a

sequence of dolomitic carbonaceous pelitic sediments with interbedded impure limestone units down to a narrow zone of sulphides and alteration from 75.8 to 78.0 m interpreted to be the unoxidized equivalent of the gossan (see Figure 2 - YTD 1 Drill Section). A petrological examination of samples from this zone (see appendix IV) revealed pyrite replacing pyrrhotite, pyrrhotite, and arsenopyrite as the dominant sulphides surrounded by an alteration envelope of muscovite and tremolite. Minor sphalerite and covellite were noted in this zone (maximum Zn 840 ppm As 5030 ppm). It is worth noting that the interval from 30 m to 86 m is very broken and cleaved indicating strong structural control, however below 86 m to the EOH the core is more competent. Below the sulphide and alteration zone the geology is dominated by a sequence of carbonaceous (locally graphitic) mudstone and distinctly banded (pale sericitic bands) carbonaceous mudstone. Trace chalcopyrite was noted in selected petrological samples from this interval.

At the completion of the hole a downhole SIROTEM geophysical survey was carried out to check for the presence of significant conductors. A copy of the plot is presented in Appendix V. The strongest response is from carbonaceous mudstone which effectively swamps the signal from any other conductors.



Koolpin Formation Lower Member/Wildman Siltstone

Lithologies



limestone



tremolite - sulphide zone



cSsm carbonaceous mudstone



Aztec Mining Company Ltd

Scale: 1:1000

Compiled: I. Butler

Date: Jan. 1992

Drawn: C.S.D.S.

BURRUNDIE DOME PROJECT  
YELLOW TRACK ANOMALY  
YTD I SECTION

## 7. EXPENDITURE DURING YEAR ONE

Expenditure on the individual licence areas for Year One is as follows:-

### EL 7021

<u>Geological Consultants</u>	\$7,423
<u>Labour</u>	\$122
<u>Analysis</u>	\$5,060
<u>Vehicle hire</u>	\$783
<u>Contract Services</u>	\$760
<u>Accommodation / Meals</u>	\$610
<u>Equipment Hire</u>	\$1,910
<u>Overheads (15%)</u>	\$2,500
<b>TOTAL</b>	<b><u>\$19,168</u></b>

The expenditure covenant for Year One was \$10,000

### EL 7122 7/12/7

<u>Geological Consultants</u>	\$8,250
<u>Labour</u>	\$991
<u>Analysis</u>	\$4,882
<u>Vehicle hire</u>	\$937
<u>Drilling</u>	\$13,986
<u>Accommodation / Meals</u>	\$282
<u>Equipment Hire</u>	\$420
<u>Overheads(15%)</u>	\$4,462

**TOTAL      \$34,210**

The expenditure covenant for Year One was \$10,000

## 8. PROPOSED PROGRAMME AND BUDGET FOR YEAR TWO

The proposed work programme for Year Two is as follows:-

- 1) Compilation of all geochemical data onto standard sheets for interpretation
- 2) Infill rock chip sampling around anomalies generated in Year One.
- 3) Review and compile data from adjoining areas offered to Nicron Resources Ltd.
- 4) Detailed geological mapping of the best geochemical anomalies.
- 5) Test the best geological and geochemical targets with diamond drilling.

The estimated expenditure for this programme of work is \$14,000 for EL 7127 and \$8,000 for EL 7021.

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## **APPENDIX I**

### **ANALYTICAL RESULTS - ROCK CHIPS**



CLASSIC LABORATORIES LTD

Final

## ANALYTICAL REPORT

Job: 1DN0960A  
O/N: 030504 D/S 11118

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
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YELLOW TRACK ANOMALY	84006	2590	3730	1650	7170	22	2210
	84007	650	<50	440	2440	<2	<50
	84008	190	<50	550	1070	<2	<50
	84009	100	<50	190	<500	<2	<50
	84010	280	410	720	820	<2	<50
	84011	350	<50	1940	<500	<2	<50
	84012	590	<50	1450	<500	<2	<50
	84013	640	<50	1340	<500	<2	<50
	84014	260	<50	600	<500	<2	<50
	84015	240	<50	1600	<500	<2	<50
	84016	160	<50	2120	<500	<2	<50
	84017	150	<50	2020	<500	<2	<50
	84018	170	<50	1640	<500	<2	<50
	84019	160	90	1530	<500	<2	<50
	84020	<20	<50	130	<500	<2	<50
GOAT TRACK ANOMALY	84021	<20	<50	130	<500	<2	<50
	84022	40	<50	310	<500	<2	<50
	84023	180	<50	480	<500	<2	<50
	84024	610	<50	3070	<500	<2	<50
ANOMALY *	84025	2540	120	6250	560	<2	<50
	84026	930	<50	6290	<500	<2	<50
	84027	910	<50	3960	<500	<2	<50
	84028	180	<50	260	1440	<2	<50
	84029	340	<50	1400	<500	<2	<50
	84030	390	<50	1300	<500	<2	<50
	84031	260	<50	830	<500	<2	<50
	84032	240	<50	1260	<500	<2	<50
	84033	310	<50	1820	<500	<2	<50
	84034	290	<50	1690	<500	<2	<50
	84035	210	<50	1700	<500	<2	<50
	84036	220	<50	1020	<500	<2	<50
	84037	190	80	830	<500	<2	<50
	84038	190	<50	440	<500	<2	<50
	84039	250	<50	1620	<500	<2	<50
	84040	260	<50	1630	<500	<2	<50
	84041	<20	<50	130	<500	<2	<50
	84042	160	<50	920	<500	<2	<50
	84043	90	<50	900	<500	<2	<50
	84044	70	<50	960	<500	<2	<50
	84045	120	<50	1140	<500	<2	<50
	84046	140	<50	110	<500	<2	<50
	84047	180	<50	460	<500	<2	<50
	84048	160	<50	390	<500	<2	<50
	84049	170	<50	650	<500	<2	<50
	84050	130	<50	130	<500	<2	<50
UNITS DET.LIM SCHEME		ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S



CLASSIC LABORATORIES LTD

Final

Job: 1DN0960A  
O/N: 030504 D/S 11118

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
84051	110	<50	60	<500	<2	<50
84052	240	<50	90	<500	<2	<50
84053	320	<50	60	<500	<2	<50
84054	840	<50	150	<500	<2	<50
84055	440	80	180	<500	<2	<50
84056	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
84057	210	<50	50	<500	<2	<50
84058	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
84059	120	<50	<20	<500	<2	<50
84060	130	<50	<20	<500	<2	<50
84061	200	<50	100	<500	<2	<50
84062	140	<50	<20	<500	<2	<50
84063	180	<50	70	<500	<2	<50
84064	160	<50	<20	<500	<2	<50
84065	280	<50	60	<500	<2	<50
84066	1480	<50	190	<500	<2	<50
84067	780	120	130	<500	<2	120
84068	430	<50	90	<500	<2	<50
84069	530	<50	140	<500	<2	<50
84070	320	<50	80	<500	<2	<50
84071	310	<50	70	<500	<2	<50
84072	1230	<50	290	<500	<2	<50
84073	490	380	160	<500	<2	<50
84074	320	<50	110	560	<2	<50
84075	790	260	270	<500	<2	<50
84076	340	<50	180	<500	<2	<50
84077	660	160	240	<500	<2	<50
84078	190	<50	230	720	<2	<50
84079	170	<50	200	<500	<2	<50
84080	30	<50	140	<500	<2	<50
84081	280	<50	380	<500	<2	<50
84082	150	<50	160	<500	<2	<50
84083	110	<50	130	<500	<2	<50
84084	90	<50	120	<500	<2	<50
84085	230	<50	330	<500	<2	<50
84086	380	<50	120	<500	<2	<50
84087	330	340	150	<500	<2	<50
84088	310	<50	230	540	<2	<50
84089	<20	<50	<20	<500	<2	<50
84090	170	<50	100	840	<2	<50
84091	280	520	510	<500	<2	<50
84092	490	1140	870	<500	<2	<50
84093	450	600	320	<500	<2	<50
84094	650	520	450	<500	<2	<50
84095	300	<50	500	560	<2	<50
84096	70	<50	140	580	<2	<50
84097	50	<50	170	1050	<2	<50
84098	70	<50	100	3530	<2	<50
84099	90	<50	150	2150	<2	<50
84100	130	<50	160	970	<2	<50

UNITS	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	20	50	20	500	2	50
SCHEME	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S



CLASSIC LABORATORIES LTD

Job: 1DN0960A  
O/N: 030504 D/S 11118

Final

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
GOAT TRACK ANOMALY	84101	320	70	180	2010	6
	84102	<20	<50	<20	<500	<2
	84103	220	<50	<20	<500	<2
	84104	<20	<50	<20	<500	<2
	84105	<20	<50	<20	<500	<2
	84106	260	<50	<20	<500	<2
	84107	<20	<50	<20	<500	<2
	84108	80	<50	<20	<500	<2
	84109	40	<50	<20	<500	<2
	84110	130	300	540	1260	<2
YELLOW TRACK ANOMALY	84111	100	<50	130	1040	<2
	84112	80	<50	<20	730	<2
	84113	<20	<50	70	690	<2
	84114	330	<50	960	850	<2
	84115	<20	<50	50	<500	<2
	84116	<20	<50	<20	<500	<2
	84117	140	<50	380	<500	<2
	84118	<20	<50	50	<500	<2
	84119	<20	<50	<20	<500	<2
	84120	650	<50	580	2640	<2
	84121	150	<50	120	800	<2
	84122	60	<50	<20	<500	<2
	84123	<20	<50	<20	<500	<2
	84124	<20	<50	<20	<500	<2
	84125	<20	<50	<20	<500	<2
	84126	<20	<50	2300	<500	<2
	84127	90	<50	1390	850	<2
	84128	<20	<50	<20	<500	<2
	84129	60	240	4660	7270	<2
	84130	30	<50	4620	7060	<2
	84131	60	<50	190	<500	<2
	84132	100	<50	540	850	<2
	84133	60	500	60	<500	<2
	84134	140	<50	<20	<500	<2
	84135	<20	<50	<20	<500	<2
	84136	150	<50	450	<500	<2

EME

PRINGS



CLASSIC LABORATORIES LTD

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
84151	280	<50	240	<500	<2	<50
84152	110	<50	650	1530	<2	<50
84153	100	60	1000	870	<2	<50
84154	280	500	1520	1610	<2	<50
84155	80	<50	3920	750	<2	<50
84156	290	<50	230	550	<2	<50
84157	520	150	5640	1060	<2	<50
84158	60	<50	1.31%	1570	<2	<50
84159	90	100	1.53%	1840	<2	<50
84160	50	240	9600	2940	<2	<50
84161	<20	320	8910	3090	<2	<50
84162	<20	120	9140	3300	<2	<50
84163	<20	330	9190	2480	<2	<50
84164	<20	270	7640	3070	<2	<50
84165	50	<50	7350	1250	<2	<50

EMERALD

SPRINGS

ANOMALY

DOI

TR

AI

J  
S2S



CLASSIC LABORATORIES LTD

Final

Job: 1DN0960A  
O/N: 030504 D/S 11118

## ANALYTICAL REPORT

SAMPLE      Au    AuDup1

84006	4.93	3.89	
84007	0.04	--	
84008	0.03	--	*
84009	0.02	--	
84010	0.57	0.47	
84011	<0.02	<0.02	
84012	<0.02	--	
84013	0.05	--	
84014	<0.02	--	
84015	<0.02	--	
84016	<0.02	--	
84017	<0.02	--	
84018	<0.02	--	
84019	<0.02	--	
84020	<0.02	--	
84021	<0.02	--	
84022	<0.02	--	
84023	<0.02	--	
84024	<0.02	--	
84025	<0.02	--	
84026	<0.02	--	
84027	<0.02	--	
84028	<0.02	--	
84029	<0.02	--	*
84030	<0.02	--	
84031	<0.02	--	
84032	<0.02	--	
84033	<0.02	<0.02	
84034	<0.02	--	
84035	<0.02	--	
84036	<0.02	--	
84037	<0.02	--	
84038	<0.02	--	
84039	<0.02	--	
84040	<0.02	--	
84041	<0.02	--	
84042	<0.02	--	
84043	<0.02	<0.02	
84044	<0.02	--	
84045	<0.02	--	
84046	<0.02	--	
84047	<0.02	--	
84048	<0.02	--	
84049	<0.02	<0.02	
84050	<0.02	--	

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

Job: 1DN0960A  
O/N: 030504 D/S 11118

Final

## ANALYTICAL REPORT

SAMPLE      Au    AuDup1

84006	4.93	3.89	
84007	0.04	--	
84008	0.03	--	*
84009	0.02	--	
84010	0.57	0.47	
84011	<0.02	<0.02	
84012	<0.02	--	
84013	0.05	--	
84014	<0.02	--	
84015	<0.02	--	
84016	<0.02	--	
84017	<0.02	--	
84018	<0.02	--	
84019	<0.02	--	
84020	<0.02	--	
84021	<0.02	--	
84022	<0.02	--	
84023	<0.02	--	
84024	<0.02	--	
84025	<0.02	--	
84026	<0.02	--	
84027	<0.02	--	
84028	<0.02	--	
84029	<0.02	--	*
84030	<0.02	--	
84031	<0.02	--	
84032	<0.02	--	
84033	<0.02	<0.02	
84034	<0.02	--	
84035	<0.02	--	
84036	<0.02	--	
84037	<0.02	--	
84038	<0.02	--	
84039	<0.02	--	
84040	<0.02	--	
84041	<0.02	--	
84042	<0.02	--	
84043	<0.02	<0.02	
84044	<0.02	--	
84045	<0.02	--	
84046	<0.02	--	
84047	<0.02	--	
84048	<0.02	--	
84049	<0.02	<0.02	
84050	<0.02	--	

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

Job: 1DN0960A  
O/N: 030504 D/S 11118

## ANALYTICAL REPORT

SAMPLE	Au	AuDupl
84051	<0.02	--
84052	<0.02	--
84053	<0.02	--
84054	<0.02	--
84055	<0.02	<0.02
84056	L.N.R.	L.N.R.
84057	<0.02	--
84058	L.N.R.	L.N.R.
84059	<0.02	--
84060	<0.02	--
84061	<0.02	--
84062	<0.02	--
84063	<0.02	--
84064	<0.02	--
84065	<0.02	--
84066	<0.02	--
84067	<0.02	--
84068	<0.02	--
84069	<0.02	<0.02
84070	<0.02	--
84071	<0.02	--
84072	<0.02	--
84073	<0.02	--
84074	<0.02	--
84075	<0.02	--
84076	<0.02	--
84077	<0.02	--
84078	<0.02	<0.02
84079	<0.02	--
84080	<0.02	--
84081	<0.02	--
84082	<0.02	--
84083	<0.02	<0.02
84084	<0.02	--
84085	<0.02	--
84086	<0.02	--
84087	<0.02	--
84088	<0.02	--
84089	<0.02	--
84090	<0.02	--
84091	<0.02	--
84092	<0.02	--
84093	<0.02	--
84094	<0.02	--
84095	<0.02	--
84096	<0.02	--
84097	<0.02	--
84098	<0.02	--
84099	<0.02	--
84100	<0.02	--

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

Final

Job: 1DN0960A  
O/N: 030504 D/S 11118

## ANALYTICAL REPORT

SAMPLE      Au    AuDup1

84101	<0.02	--
84102	<0.02	--
84103	<0.02	--
84104	<0.02	--
84105	<0.02	--
84106	<0.02	<0.02
84107	<0.02	--
84108	<0.02	--
84109	<0.02	--
84110	<0.02	--
84111	<0.02	--
84112	<0.02	--
84113	<0.02	--
84114	<0.02	--
84115	<0.02	--
84116	<0.02	--
84117	<0.02	--
84118	<0.02	--
84119	<0.02	--
84120	<0.02	--
84121	<0.02	--
84122	<0.02	--
84123	<0.02	--
84124	<0.02	--
84125	<0.02	<0.02
84126	<0.02	--
84127	<0.02	<0.02
84128	<0.02	--
84129	<0.02	--
84130	<0.02	--
84131	<0.02	--
84132	0.32	0.30
84133	<0.02	--
84134	<0.02	--
84135	<0.02	--
84136	<0.02	--

CLASSIC LABORATORIES LTD

Final

ANALYTICAL REPORT

SAMPLE	Au	AuDupl
--------	----	--------

84151	0.12	--
84152	<0.02	<0.02
84153	<0.02	<0.02
84154	<0.02	--
84155	<0.02	--
84156	<0.02	--
84157	<0.02	--
84158	<0.02	--
84159	<0.02	<0.02
84160	<0.02	--
84161	<0.02	--
84162	<0.02	--
84163	<0.02	--
84164	<0.02	--
84165	<0.02	--

\*

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7

# CLASSIC LABORATORIES LTD

Incorporated in WA; a wholly owned subsidiary of Amdel Ltd

ACN 009-076-555

Oman Place, Thebarton, South Australia 5031

Telephone: (08) 43 5722 Facsimile: (08) 234 0321



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Please note our new Phone Number is (08) 416 5300

Mr Alan Ciplys  
Classic Laboratories Limited  
18 Marjorie Street  
FERRIMAH  
SA 0828

## FINAL ANALYSIS REPORT

Your Order No: 1DN0960A

Our Job Number : 1AD2337

Samples received : 07-AUG-1991

Results reported : 16-AUG-1991

No. of samples : 191

Report comprises a cover sheet and pages 1 to 5

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Due to highly mineralised samples the detection limits for Sn and W have been elevated.

Note:  
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

John Waters  
Laboratory Manager - Adelaide

NT

CC

Mr Alan Ciplys

### Report Codes:

N.A. - Not Analysed.

L.N.R. - Listed But Not Received.

I.S. - Insufficient Sample.

### Distribution Codes:

CC - Carbon Copy

EM - Electronic Media

MM - Magnetic Media

"RELIABLE ANALYSES AT COMPETITIVE COST"



## ANALYTICAL REPORT

Job: 1AD2337  
O/N: 1DN0960A

Sample	Sn	W
84006	6	15
84007	4	10
84008	<4	15
84009	<4	10
84010	<4	<10
84011	4	<10
84012	<10	<30
84013	<10	<30
84014	<10	<30
84015	<10	<30
84016	<10	<30
84017	4	10
84018	<4	<10
84019	<10	<30
84020	4	<10
84021	<4	<10
84022	5	10
84023	5	15
84024	<4	<20
84025	<4	<20
84026	<4	<20
84027	6	<20
84028	<10	<30
84029	5	25
84030	<4	<10
84031	<4	15
84032	6	20
84033	<10	<30
84034	<4	10
84035	6	<20
84036	<4	<20
84037	<10	<30
84038	<4	10
84039	<4	<10
84040	<10	<30
84041	8	10
84042	6	<10
84043	5	<10
84044	<4	15
84045	<4	<10

Units	ppm	ppm
DL	4	10
Scheme	XRF1	XRF1



## ANALYTICAL REPORT

Job: 1AD2337  
O/N: 1DN0960A

Sample	Sn	W
84046	<4	20
84047	<4	<10
84048	<4	10
84049	<4	15
84050	<4	<10
84051	<4	<10
84052	<4	20
84053	10	<10
84054	5	<10
84055	10	10
84056	L.N.R.	L.N.R.
84057	4	<10
84058	L.N.R.	L.N.R.
84059	<4	<10
84060	5	<10
84061	10	<10
84062	4	<10
84063	8	<10
84064	10	<10
84065	<4	<10
84066	4	<10
84067	<4	<10
84068	6	<10
84069	5	<10
84070	8	10
84071	4	15
84072	4	<10
84073	<4	<10
84074	<4	<10
84075	<4	<10
84076	6	<10
84077	<4	10
84078	<4	<10
84079	<4	<10
84080	<4	<10
84081	<4	<10
84082	<4	<10
84083	<4	10
84084	<4	15
84085	<4	<10
84086	<4	<10
84087	6	<10
84088	<4	<10
84089	<4	<10
84090	<4	<10

Units	ppm	ppm
DL	4	10
Scheme	XRF1	XRF1



## ANALYTICAL REPORT

Job: 1AD2337  
O/N: 1DN0960A

Sample	Sn	W
84091	34	15
84092	22	<10
84093	14	<10
84094	24	<10
84095	<4	<10
84096	4	<10
84097	<10	<30
84098	<4	<10
84099	<4	<10
84100	<4	<10
84101	4	<10
84102	<4	<10
84103	<4	<10
84104	4	<10
84105	6	<10
84106	<4	<10
84107	<4	<10
84108	8	<10
84109	<4	<10
84110	<4	<10
84111	6	<10
84112	5	<10
84113	<4	<10
84114	5	<10
84115	<4	<10
84116	4	<10
84117	<4	<10
84118	6	10
84119	<4	<10
84120	<4	<10
84121	<4	10
84122	4	10
84123	<4	<10
84124	<4	<10
84125	<4	<10
84126	<4	10
84127	<4	<10
84128	<4	<10
84129	<10	<30
84130	<10	<30
84131	<4	<10
84132	<4	<10
84133	<4	10
84134	6	<10
84135	<4	<10

Units	ppm	ppm
DL	4	10
Scheme	XRF1	XRF1

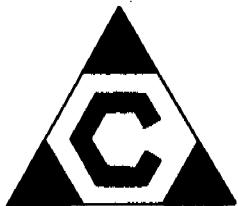


## ANALYTICAL REPORT

Job: 1AD2337  
O/N: 1DN0960A

Sample	Sn	W	
84136	4	<10	*

84152	<4	<10	
84153	<4	55	
84154	8	10	
84155	<4	15	
84156	8	<10	
84157	<4	<10	
84158	<10	<30	
84159	<10	<30	*
84160	<4	10	
84161	<4	40	
84162	<10	<30	
84163	<4	20	
84164	<4	55	
84165	<4	35	



# CLASSIC LABORATORIES LTD

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Postal Address: P.O. Box 58, Berrimah, Northern Territory 0828  
Marjorie Street., P.O. Box 58, Berrimah, Northern Territory 0828  
Telephone: (089) 32 2637 Facsimile: (089) 32 3531

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18 SEP 1991  
BY MAIL

Woodcutters Mine  
P.M.B. 60  
Winnellie

N.T. 0821

## ANALYSIS REPORT :

Your Reference : 030732 D/S 11140	Our Reference : 1DN1065
Samples Received : 16/08/91	Results Reported : 29/08/91
Number of Samples : 97	Report Pages : 1 to 4 & 1 to 3

This report relates specifically to the samples tested in so far as the samples supplied are truly representative of the sample source.

If you have any enquiries please contact the undersigned quoting our reference as above.

*BURRUNDIE Form*

DONKEY	TRACK
SNARE	TRACK
BIRD	TRACK
} ANOMALIES	

## Report Codes:

N.A. -Not Analysed  
L.N.R. -Listed But Not Received  
I.S. -Insufficient Sample

*A Ciplys*

Approved Signature:

for

ALAN CIPLYS  
Manager - Darwin  
CLASSIC LABORATORIES LTD

\*\*\* RELIABLE ANALYSES AND SERVICE \*\*\*



Final

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
84391	260	80	210	<500	<2	<50
84392	90	<50	140	<500	<2	<50
84393	120	90	80	<500	<2	<50
84394	120	360	90	<500	<2	<50
84395	120	250	90	<500	<2	<50
84396	310	50	1290	<500	<2	<50
84397	170	<50	220	<500	<2	<50
84398	170	<50	150	<500	<2	<50
84399	320	<50	120	<500	<2	<50
84400	380	<50	30	<500	<2	<50
84401	220	<50	230	<500	<2	<50
84402	300	<50	460	<500	<2	<50
84403	920	340	740	<500	<2	<50
84404	880	60	240	<500	<2	<50
84405	200	60	140	<500	<2	<50
84406	300	100	160	<500	<2	<50
84407	120	80	90	<500	<2	<50
84408	340	120	440	<500	<2	<50
84409	150	<50	370	580	<2	<50
84410	380	540	1110	<500	<2	<50
84411	150	<50	210	<500	<2	<50
84412	90	270	2160	<500	<2	<50
84413	60	<50	1220	<500	<2	<50
84414	530	1240	500	<500	<2	<50
84415	570	890	480	500	<2	<50
84416	460	360	400	<500	<2	<50

DONKEY  
TRACK  
ANOMALY  
ROCK CHIPSSNARE  
TRACK  
ANOMALY

ROCK CHIPS

84428	620	160	90	<500	<2	<50
84429	230	50	40	<500	<2	<50
84430	600	140	80	570	<2	<50
84431	350	90	120	<500	<2	<50
84433	210	880	70	<500	<2	<50
84434	70	280	40	<500	<2	<50
84435	130	220	70	<500	<2	<50
84436	100	90	60	<500	<2	<50
84437	380	290	30	<500	<2	<50
84438	170	500	110	500	<2	<50
84439	60	60	360	<500	<2	<50
84440	320	100	930	<500	<2	<50
84441	210	70	250	500	<2	<50

EL7021

\*

UNITS	ppm	ppm	ppm	ppm	ppm	ppm
DET. LIM.	20	50	20	500	2	50
SCHEME	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S



inal

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
--------	----	----	----	----	----	----

84457	520	120	40	770	<2	<50
84458	500	160	50	820	<2	<50
84459	310	450	20	<500	<2	<50
84460	640	80	120	<500	<2	<50
84461	410	100	260	<500	<2	<50
84462	300	70	50	<500	<2	<50
BIRD TRACE	240	50	20	<500	<2	<50
84463	150	<50	<20	600	<2	<50
84464	100	<50	<20	<500	<2	<50
84465	40	<50	<20	<500	<2	<50
ANOMALY	360	60	60	<500	<2	<50
84467	590	100	90	580	<2	<50
84468	560	70	80	<500	<2	<50
84469	310	60	<20	<500	<2	<50
84470	330	50	20	<500	<2	<50
84471	340	100	40	<500	<2	<50
84472	90	50	<20	<500	<2	<50
84473	810	90	290	<500	<2	<50
84474	1080	100	380	<500	<2	<50
84475	500	70	190	<500	<2	<50
84476	580	120	110	<500	<2	<50
84477	420	100	390	500	<2	<50
84478	370	<50	200	<500	<2	<50
84479	230	<50	500	<500	<2	<50
84480	170	<50	270	<500	<2	<50
84481	290	<50	380	<500	<2	<50
84482	110	<50	220	<500	<2	<50
84483	180	90	150	<500	<2	<50
84484	80	<50	640	<500	<2	<50
84485	60	<50	350	<500	<2	<50
84486	90	<50	180	<500	<2	<50
84487	50	<50	130	<500	<2	<50
84488						

UNITS	ppm	ppm	ppm	ppm	ppm	ppm
DET. LIM	20	50	20	500	2	50
SCHEME	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S



CLASSIC LABORATORIES LTD

Job: 1DN1065  
O/N: D/S 11140

Final

ANALYTICAL REPORT

SAMPLE

Au AuDup1

84428	<0.02	--
84429	<0.02	--
84430	<0.02	<0.02
84431	<0.02	--
84433	<0.02	--
84434	<0.02	--
84435	<0.02	<0.02
84436	<0.02	--
84437	<0.02	--
84438	<0.02	--
84439	<0.02	--
84440	<0.02	--
84441	<0.02	--

\*

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

Job: 1DN1065  
O/N: D/S 11140

final

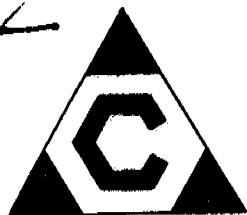
## ANALYTICAL REPORT

SAMPLE      Au AuDup1

84457	<0.02	--
84458	<0.02	--
84459	<0.02	--
84460	<0.02	--
84461	<0.02	--
84462	<0.02	<0.02
84463	<0.02	--
84464	<0.02	--
84465	<0.02	--
84466	<0.02	--
84467	<0.02	<0.02
84468	<0.02	--
84469	<0.02	--
84470	<0.02	--
84471	<0.02	--
84472	<0.02	--
84473	<0.02	--
84474	<0.02	--
84475	<0.02	--
84476	<0.02	--
84477	<0.02	--
84478	<0.02	--
84479	<0.02	--
84480	<0.02	--
84481	<0.02	--
84482	<0.02	--
84483	<0.02	--
84484	<0.02	--
84485	<0.02	<0.02
84486	<0.02	--
84487	<0.02	--
84488	<0.02	--

\*

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



# CLASSIC LABORATORIES LTD

Incorporated in WA: a wholly owned subsidiary of Amdel Ltd

Postal Address: P.O. Box 1032, Wangara, Western Australia 6065  
34 Buckingham Drive, Wangara, Western Australia 6065  
Telephone: (09) 409 8898 Facsimile: (09) 409 6317

Alan Ciplyns  
Classic Laboratories  
Marjorie Street  
BERRIMAH  
N.T 0828

## FINAL ANALYSIS REPORT

Your Order No: 1DN1065

Our Job Number : 1PE4147

Samples received : 18-AUG-1991 Results reported : 03-SEP-1991  
No. of samples : 98  
Report comprises a cover sheet and pages 1 to 3

This report relates specifically to the samples tested in so far as that  
the samples as supplied are truly representative of the sample source.

Note:  
If you have any enquiries please contact Mr. Martin Lindsay quoting the  
above job number.

Approved Signature:

for

Martin Lindsay  
Chief Chemist  
CLASSIC LABORATORIES LTD

**Report Codes:**

N.A. - Not Available.  
L.N.R. - Listed But Not Received.  
I.S. - Insufficient Sample.

**Distribution Codes:**

CC - Carbon Copy  
EM - Electronic Media  
MM - Magnetic Media

"RELIABLE ANALYSIS AT COMPETITIVE COST"



CLASSIC LABORATORIES LTD

A.C.N. 009 076 555

Perth W.A.

Job Number: 1PE4147  
O/N : 1DN1065

ANALYTICAL REPORT

SAMPLE	Sn	W
--------	----	---

84428	6	<10
84429	<4	<10
84430	8	<10

\*

UNITS SCHEME	ppm XRF1	ppm XRF1
-----------------	-------------	-------------

## CLASSIC LABORATORIES LTD

A.C.N. 009 076 555

Job Number: 1PE4147  
O/N : 1DN1065

## ANALYTICAL REPORT

SAMPLE	Sn	W
84431	8	<10
84432	L.N.R.	L.N.R.
84433	8	<10
84434	6	<10
84435	4	<10
		*
84436	<4	<10
84437	4	<10
84438	6	<10
84439	12	<10
84440	<4	<10
<u>84441</u>	<u>6</u>	<u>20</u>

84457	<4	<10
84458	4	<10
84459	4	<10
84460	<4	15
		*
84461	<4	10
84462	8	<10
84463	4	15
84464	8	<10
84465	6	<10
		*
84466	<4	<10
84467	4	10
84468	4	<10
84469	6	<10
84470	4	<10

UNITS SCHEME	ppm XRF1	ppm XRF1
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CLASSIC LABORATORIES LTD

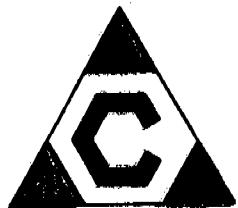
A.C.N. 009 076 555

Job Number: 1PE4147  
O/N : 1DN1065

ANALYTICAL REPORT

SAMPLE	Sn	W	
84471	<4	<10	
84472	4	10	
84473	4	<10	
84474	6	<10	
84475	14	<10	
84476	6	<10	
84477	6	<10	
84478	<4	10	
84479	4	10	
84480	<4	<10	*
84481	6	<10	
84482	<4	10	
84483	6	<10	
84484	<4	<10	
84485	<4	<10	
84486	<4	<10	
84487	8	<10	
84488	6	<10	

UNITS SCHEME	ppm XRF1	ppm XRF1
-----------------	-------------	-------------



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Marjorie Street., P.O. Box 58, Berrimah, Northern Territory 0828  
Telephone: (089) 32 2637 Facsimile: (089) 32 3531

RECEIVED  
18 SEP 1991  
BY MAIL

Woodcutters Mine  
P.M.B. 60  
Winnellie

N.T. 0821

## ANALYSIS REPORT :

Your Reference : 030789 D/S 11141	Our Reference : 1DN1091
Samples Received : 21/08/91	Results Reported : 30/08/91
Number of Samples : 207	Report Parts : A to C

This report relates specifically to the samples tested in so far as the samples supplied are truly representative of the sample source.

If you have any enquiries please contact the undersigned quoting our reference as above.

DURRUNDIE Done  
DURRUNDIE

## Report Codes:

- N.A. -Not Analysed
- L.N.R. -Listed But Not Received
- I.S. -Insufficient Sample

*A Ciplys*

Approved Signature:

for

ALAN CIPLYS  
Manager - Darwin  
CLASSIC LABORATORIES LTD

\*\*\* RELIABLE ANALYSES AND SERVICE \*\*\*



Final

## ANALYTICAL REPORT

	SAMPLE	Cu	Pb	Zn	As	Ag	Bi
IRD TRACK ANOMALY	84495	80	<50	230	<500	<2	<50
	84496	30	<50	370	<500	<2	<50
	84497	30	<50	380	<500	<2	<50
	84498	<20	<50	390	580	<2	<50
	84499	<20	<50	260	1270	<2	<50
	84500	210	<50	660	<500	<2	<50
	84501	310	50	300	620	<2	<50
	84502	180	<50	290	500	<2	<50

JET  
Non  
IRD  
ANO

USHFII

Normal

	84521	30	<50	100	<500	<2	<50
IRD TRACK ANOMALY	84522	210	<50	90	<500	<2	<50
	84523	50	<50	20	<500	<2	<50
	84524	70	60	220	580	<2	<50
	84525	80	<50	210	<500	<2	<50

USHFIRE

ANOMALY

IRD TRACK      84526      160      <50      90      <500      <2      <50  
 ANOMALY

UNITS DET.LIM SCHEME	ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S
----------------------------	--------------------	--------------------	--------------------	---------------------	-------------------	--------------------



CLASSIC LABORATORIES LTD

Job: 1DN1091C  
O/N: 030789 D/S 11141

Final

ANALYTICAL REPORT

SAMPLE      Au AuDup1

84495	<0.02	--
84496	<0.02	--
84497	<0.02	<0.02
84498	<0.02	--
84499	<0.02	--
84500	<0.02	--
84501	<0.02	<0.02
<u>84502</u>	<u>&lt;0.02</u>	<u>--</u>

\*

<u>84521</u>	<u>&lt;0.02</u>	<u>--</u>
84522	<0.02	--
84523	<0.02	--
84524	<0.02	--
<u>84525</u>	<u>&lt;0.02</u>	<u>--</u>

\*

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

A.C.N. 009 076 555

erth W.A.

Job Number: 1PE4417  
O/N : 1DN1091

ANALYTICAL REPORT

SAMPLE	As
84317	70 *
84318	105 *
84432	50
84503	34
84225	16 *

UNITS                    ppm  
SCHEME                XRF1L



CLASSIC LABORATORIES LTD

A.C.N. 009 076 555

Job Number: 1PE4417  
O/N : 1DN1091

ANALYTICAL REPORT

SAMPLE	Sn	W
84495	<4	<10
84496	<4	<10
84497	<4	<10
84498	<4	<10
84499	6	<10
84500	<4	<10
84501	4	<10
84502	4	<10

84521	8	<10
84522	12	<10
84523	6	<10
84524	<4	<10
84525	<4	<10

UNITS  
SCHEME            ppm            ppm  
                  XRF1            XRF1



STREAM SED

CLASSIC LABORATORIES LTD

Job: 1DN1091B  
O/N: 030789 D/S 11141

Final

## ANALYTICAL REPORT

STREAM  
SEDIMENTS

SAMPLE	Cu	Pb	Zn	Au	AuDp1	
84317	67	34	106	0.007	--	}*
84318	77	97	31	0.005	--	
84225	51	7	66	<0.001	--	

UNITS DET.LIM SCHEME	ppm 1 AAS2M	ppm 2 AAS2M	ppm 1 AAS2M	ppm 0.001 FA3	ppm 0.001 FA3
----------------------------	-------------------	-------------------	-------------------	---------------------	---------------------



CLASSIC LABORATORIES LTD

Job: 1DN1096A  
O/N: D/S 11123

Final

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
ULLDOZED DUSTS	84539	30	<50	60	<500	<2
	84540	120	110	20	<500	<2
	84545	200	60	80	<500	<2
	84546	210	100	50	<500	<2
	84547	110	170	70	590	2
	84548	60	150	<20	<500	<2
	84549	180	130	50	730	<2
	84550	220	220	170	740	4

ALBY SKIPPERS  
GOSSEN

UNITS	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	20	50	20	500	2	50
SCHEME	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S	AAS2S



CLASSIC LABORATORIES LTD

Job: 1DN1096A  
O/N: D/S 11123

Final

ANALYTICAL REPORT

SAMPLE            Au AuDup1

84539	<0.02	--
84540	<0.02	--
84545	<0.02	--
84546	<0.02	--
84547	<0.02	--
84548	<0.02	<0.02
84549	<0.02	--
84550	<0.02	--

\*

AU ST. SAMPLES  
LOSSAN.

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAST	AAST



CLASSIC LABORATORIES LTD

A.C.N. 009 078 555

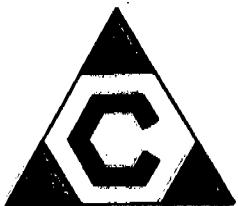
Perth W.A.

Job Number: 1PE4407  
O/N : 1DN1096

ANALYTICAL REPORT

SAMPLE	Sn	W
84539	6	<10
84540	6	<10
84545	4	25
84546	<4	220
84547	18	20
84548	18	10
84549	24	<10
84550	<4	<10

UNITS SCHEME	ppm XRF1	ppm XRF1
-----------------	-------------	-------------



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Marjorie Street., P.O. Box 58, Berrimah, Northern Territory 0828  
Telephone: (089) 32 2637 Facsimile: (089) 32 3531

Woodcutters Mine  
P.M.B. 60  
Winnellie

N.T. 0821

## ANALYSIS REPORT :

Your Reference : 030610 D/S 11139	Our Reference : 1DN1026
Samples Received : 13/08/91	Results Reported : 29/08/91
Number of Samples : 95	Report Pages : 1 to 4 & 1 to 3

This report relates specifically to the samples tested in so far as the samples supplied are truly representative of the sample source.

If you have any enquiries please contact the undersigned quoting our reference as above.

*Berrimah Park*

### Report Codes:

N.A. -Not Analysed  
L.N.R. -Listed But Not Received  
I.S. -Insufficient Sample

*A Ciplys*

Approved Signature:

for

ALAN CIPLYS  
Manager - Darwin  
CLASSIC LABORATORIES LTD

\*\*\* RELIABLE ANALYSES AND SERVICE \*\*\*



Final

## ANALYTICAL REPORT

	SAMPLE	Cu	Pb	Zn	As	Ag	Bi
GOAT TRACK ANOMALY	84217	90	<50	<20	<500	<2	<50
	84218	40	60	<20	<500	<2	<50
	84219	50	<50	<20	<500	<2	<50
	84220	90	<50	<20	<500	<2	<50
	84221	40	<50	<20	<500	<2	<50
	84222	80	<50	<20	<500	<2	<50
	84223	300	<50	30	<500	<2	<50
	84224	320	<50	30	<500	<2	<50
	84301	320	100	20	<500	<2	<50
	84302	240	<50	<20	<500	<2	<50
	84303	170	<50	30	<500	<2	<50
	84304	210	<50	30	<500	<2	<50
YELLOW TRACK ANOMALY	84305	240	60	<20	<500	<2	<50
	84306	130	<50	<20	<500	<2	<50
	84307	150	<50	90	680	<2	<50
	84308	160	<50	40	<500	<2	<50
	84309	110	310	530	<500	<2	<50
	84310	150	920	970	<500	2	<50
	84311	180	630	30	<500	2	<50
	84312	490	150	110	670	<2	<50
	84313	300	260	190	<500	2	<50
	84314	420	290	90	<500	<2	<50
	84315	1720	290	140	<500	<2	<50
	84316	270	240	50	5530	<2	<50
ANOM	84319	720	250	200	630	<2	<50
	84320	370	<50	90	650	<2	<50
	84321	410	100	20	570	<2	<50
	84322	310	<50	30	700	<2	<50

Don.

ANOM

UNITS DET.LIM SCHEME	ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S
----------------------------	--------------------	--------------------	--------------------	---------------------	-------------------	--------------------



CLASSIC LABORATORIES LTD

Job: 1DN1026  
O/N: 030610 D/S 11139

Final

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
--------	----	----	----	----	----	----

DONKEY

ANOMALY

UNITS DET.LIM SCHEME	ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S
----------------------------	--------------------	--------------------	--------------------	---------------------	-------------------	--------------------



Final

## ANALYTICAL REPORT

SAMPLE	Au	AuDup1
84217	<0.02	<0.02
84218	<0.02	--
84219	<0.02	--
84220	<0.02	<0.02
84221	<0.02	--
84222	<0.02	--
84223	<0.02	--
84224	<0.02	--
84301	<0.02	--
84302	<0.02	--
84303	<0.02	--
84304	<0.02	--
84305	<0.02	--
84306	<0.02	--
84307	<0.02	--
84308	<0.02	--
84309	<0.02	--
84310	<0.02	--
84311	<0.02	--
84312	<0.02	--
84313	<0.02	--
84314	<0.02	--
84315	<0.02	--
84316	0.24	0.30
84319	<0.02	--
84320	<0.02	--
84321	<0.02	--
84322	<0.02	--

\*

\*

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

Job: 1DN1026  
O/N: 030610 D/S 11139

Final

ANALYTICAL REPORT

SAMPLE            Au AuDupl

UNITS	ppm	ppm
DET.LIM	0.02	0.02
SCHEME	AAS7	AAS7



CLASSIC LABORATORIES LTD

A.C.N. 009 076 555

Perth W.A.

Job Number: 1PE4089  
O/N : 1DN1026

## ANALYTICAL REPORT

SAMPLE	Sn	W	
84217	<4	<10	
84218	4	10	
84219	<4	<10	
84220	4	<10	
84221	<4	<10	
84222	4	<10	*
84223	<4	<10	
84224	8	10	
84301	6	15	
84302	8	<10	
84303	4	<10	
84304	4	10	
84305	<4	10	
84306	4	<10	
84307	6	15	
84308	4	<10	
84309	<4	<10	
84310	<4	<10	
84311	4	<10	
84312	<4	40	
84313	<4	40	*
84314	<4	15	
84315	<4	<10	
84316	<4	<10	
84319	8	15	
84320	10	<10	
84321	30	<10	
84322	10	10	

UNITS SCHEME	ppm XRF1	ppm XRF1
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CLASSIC LABORATORIES LTD

## ANALYTICAL REPORT

Final

Job: 1DN1141B  
O/N: 030951 D/S 11125

SAMPLE	Cu	Pb	Zn	As	Ag	Bi
--------	----	----	----	----	----	----

MONKEY TRACK  
ANOMALYEMERALD  
PRINGS  
ANOMALY

green boot track	84563	40	<50	400	650	<2	<50	*
snake track	84564	40	<50	510	900	2	<50	
anomaly	84565	50	<50	200	790	3	<50	
green TRACK	84566	320	120	330	3360	2	70	
or 84566.	84567	530	500	570	4420	3	220	*

17

OR

UNITS DET.LIM SCHEME	ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S
----------------------------	--------------------	--------------------	--------------------	---------------------	-------------------	--------------------



CLASSIC LABORATORIES LTD

Final

Job: 1DN1141B  
O/N: 030951 D/S 11125

## ANALYTICAL REPORT

SAMPLE	Au	AuDpl	Au	AuDpl	Sn	W
--------	----	-------	----	-------	----	---

84563	<0.02	--	--	--	<4	<10
84564	<0.02	--	--	--	4	10 *
84565	<0.02	<0.02	--	--	<4	<10
84566	0.36	--	--	--	6	<10
84567	0.89	0.82	--	--	<4	<10

UNITS DET.LIM SCHEME	ppm 0.02 AAS7	ppm 0.02 AAS7	ppm 0.01 FA1	ppm 0.01 FA1	ppm 4 XRF1	ppm 10 XRF1
----------------------------	---------------------	---------------------	--------------------	--------------------	------------------	-------------------

SUKA  
YELLOW TRACK  
CHECK ROCK  
CHIPPING

## ANOMALY

**DATE RECEIVED**

2 / 4 / 51

*Description:*

Geology Dept.

OLD SAMPLES

Peter nicholson

**APPENDIX II**

**ANALYTICAL RESULTS - DRILLING**



CLASSIC LABORATORIES LTD

ANALYTICAL REPORT

	SAMPLE	Cu	Pb	Zn	As	Ag	Bi
WILLY TRACK	84551	160	<50	240	740	<2	<50
NOMALT.	84552	110	<50	<20	710	<2	60
	84553	380	110	80	910	<2	90
	84554	410	<50	300	770	2	70
MIRALO	84555	260	50	280	760	3	60
SINGI	84556	280	<50	140	610	2	140
ON ALV.	84557	80	130	690	700	<2	70
	84558	440	<50	200	1000	<2	<50
	84559	190	240	600	1260	<2	50
	84560	400	<50	120	1840	<2	60
	84561	420	<50	60	860	2	60
	84562	380	<50	360	1350	<2	50
on Foot Track	84563	40	<50	400	650	<2	<50
on Track	84564	40	<50	510	900	2	<50
	84565	50	<50	200	790	3	<50
21y TRACK	84566	320	120	330	3360	2	70
SL0026.	84567	530	500	570	4420	3	220
31-32	84568	<20	<50	110	<500	2	50
T.D / DRILL 32-33	84569	50	<50	2020	720	2	<50
33-33	84570	<20	<50	1650	1230	<2	<50
RE 33-7-35	84571	<20	<50	140	<500	<2	70
41-42-4	84572	40	<50	60	<500	2	60
42-4-4	84573	50	<50	50	<500	<2	70
44-45-5	84574	20	<50	150	<500	<2	60
45-5-67	84575	70	<50	300	820	<2	60
47-48	84576	20	<50	160	700	<2	60
60-5-62-0	84577	<20	<50	480	830	<2	60
76-0-76-9	84578	100	<50	840	5030	<2	70
76-9-78-0	84579	230	<50	590	7590	<2	70
78-0-79-0	84580	60	<50	150	1420	<2	70

UNITS	ppm 20 AAS2S	ppm 50 AAS2S	ppm 20 AAS2S	ppm 500 AAS2S	ppm 2 AAS2S	ppm 50 AAS2S
DET.LIM SCHEME						



## CLASSIC LABORATORIES LTD

## Water Analysis Report

Job No. 1DN1142

Method WAT 2 Page W1

Sample ID. W91-1982 YELLOW TRACK WATER BORE

Chemical Composition			Derived Data	
	mg/L	me/L		mg/L
Cations			Total Dissolved Solids	
Calcium (Ca)	17.4	0.87	A. Based on E.C.	80
Magnesium (Mg)	5.5	0.45	B. Calculated ( $\text{HCO}_3 = \text{CO}_3$ )	81
Sodium (Na)	3.4	0.15		
Potassium (K)	4.0	0.10		
Anions			Total Hardness	66
Hydroxide (OH)			Carbonate Hardness	66
Carbonate (CO <sub>3</sub> )			Non-Carbonate Hardness	
Bi-Carbonate (HCO <sub>3</sub> )	86.0	1.41	Total Alkalinity	70
Sulphate (SO <sub>4</sub> )	4.4	0.09	(Each as CaCO <sub>3</sub> )	
Chloride (Cl)	3	0.09	Totals and Balance	
Nitrate (NO <sub>3</sub> )	<0.1		Cations (me/L)	1.6
			Anions (me/L)	1.6
			Diff=	0.02
			Sum =	3.16
Other Analyses			ION BALANCE (Diff*100/Sum) =	0.71%
Reaction - pH	6.2		Sodium / Total Cation Ratio	9.4%
Conductivity (E.C.)	153		Remarks	
(micro -S/cm at 25°C)				
Resistivity Ohm.M at 25°C	65.359			

Note:

mg/L = Milligrams per litre  
me/L = MilliEqvs.per litre

Name: MR I.BUTLER  
Address: WOODCUTTERS JOINT VENTURE  
PMB 60  
WINNELLIE N.T 0821

Date Collected 21-8-91  
Date Received 26-8-91  
Collected by CLIENT



CLASSIC LABORATORIES LTD

Report 1DN1142

Page 2 of 2

TRACE METALS

SAMPLE I.D.      YELLOW TRACK WATER BORE

21/8/91

LAB I.D.            W91 1982

Arsenic	µg/l	< 5
Lead	µg/l	1.5



CLASSIC LABORATORIES LTD

DRILLING YTP2 : WATER BORE

Job: 1DN1096C  
O/N: D/S 11123

Final

## ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Au	AuDp1
3-4m 84742	210	43	280	160	0.03	--
4-5 84743	190	128	280	200	0.04	--
5-6 84744	96	14	120	170	0.11	--
6-7 84745	88	36	128	110	<0.01	--
7-8 84746	97	20	192	110	0.04	--
8-9 84747	85	23	220	170	0.03	--
9-10 84748	70	20	174	110	0.05	--
10-11 84749	78	23	320	<50	<0.01	--
11-12 84750	75	16	520	70	<0.01	--
12-13 84751	45	14	370	90	<0.01	--
13-14 84752	34	26	360	110	<0.01	--
14-15 84753	21	36	260	80	<0.01	--
15-16 84754	35	42	310	80	<0.01	--
16-17 84755	42	64	390	160	<0.01	<0.01
17-18 84756	47	62	440	140	<0.01	--
18-19 84757	44	48	420	140	<0.01	--
19-20 84758	54	60	510	200	<0.01	--
20-21 84759	53	67	560	220	<0.01	--
21-22 84760	53	66	550	220	<0.01	--
25-26 84764	55	64	580	220	<0.01	--
26-27 84765	86	46	740	220	<0.01	--
27-28 84766	94	28	400	110	<0.01	--
28-29 84767	80	35	710	130	<0.01	--
29-30 84768	67	23	620	130	<0.01	--
30-31 84769	47	65	1150	300	<0.01	--
31-32 84770	52	62	1080	210	<0.01	<0.01
32-33 84771	48	38	790	180	<0.01	--
33-34 84772	60	36	620	240	<0.01	--
34-35 84773	38	17	200	160	<0.01	--
35-36 84774	34	21	270	290	<0.01	--
36-37 84775	47	23	310	310	<0.01	--
37-38 84776	96	46	710	240	<0.01	--
38-39 84777	126	56	420	290	<0.01	--
39-40 84778	106	47	350	200	0.13	--
40-41 84779	68	35	560	110	<0.01	--
41-42 84780	54	41	610	90	0.24	--
42-43 84781	43	43	630	200	<0.01	<0.01

UNITS DET.LIM SCHEME	ppm 1 AAS2M	ppm 2 AAS2M	ppm 1 AAS2M	ppm 50 AAS2M	ppm 0.01 FA1	ppm 0.01 FA1
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## BURRUNDIE PROJECT

DATE REPORTED

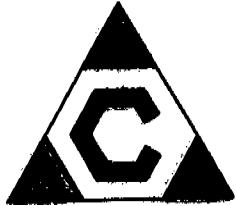
22/8/91 DRILLING YTP1 WATER BORE

Description:

1. Geology Dept.: (argent assay)

To Peter Nicholson

LAB I.D.	SAMPLE	Pb	Zn	Ag ppm	Fe	SB	AS	Cu
1802	0-3m 84693	0.05	0.09	12	1.78	0.03	0.05	0.01
03	3-4 94	0.06	0.06	14	0.97	0.03	<0.01	0.01
04	4-5 95	0.05	0.05	7	1.15	0.03	0.01	0.01
05	5-6 96	0.05	0.06	9	0.96	0.03	<0.01	0.01
06	6-7 97	0.04	0.05	16	0.81	0.03	<0.01	0.01
07	7-8 98	0.04	0.05	14	0.44	0.02	<0.01	0.01
08	8-9 99	0.04	0.05	15	0.68	0.03	<0.01	0.01
09	9-10 84700	0.05	0.07	13	1.57	0.03	<0.01	0.01
1810	10-11 01	0.04	0.28	7	9.68	0.03	0.28	0.02
11	11-12 02	0.05	0.44	8	29.53	0.03	0.38	0.01
12	12-13 03	0.05	0.49	17	25.81	0.03	0.33	0.01
13	13-14 04	0.04	0.23	14	7.66	0.02	0.22	0.01
14	14-15 05	0.05	0.17	11	5.98	0.03	0.16	0.01
15	15-16 06	0.06	0.21	10	6.94	0.03	0.21	0.01
16	16-17 07	0.06	0.10	10	3.03	0.02	0.12	0.01
17	17-18 08	0.06	0.10	12	3.18	0.03	0.10	0.02
18	18-19 09	0.06	0.14	8	4.25	0.03	0.06	0.01
19	19-20 84710	0.03	0.10	11	4.49	0.03	0.09	0.01
18 20	20-21 11	0.05	0.11	12	4.21	0.03	0.08	0.01
21	21-22 12	0.05	0.21	14	8.41	0.03	0.27	0.01
22	22-23 13	0.06	0.33	27	23.20	0.02	0.31	0.01
23	23-24 14	0.05	0.37	17	26.4	0.02	0.36	0.01
24	24-25 15	0.04	0.42	13	30.0	0.02	0.46	<0.01
25	25-26 16	0.05	0.49	14	35.2	0.02	0.48	<0.01
26	26-27 17	0.04	0.15	15	24	0.02	0.17	0.01



# CLASSIC LABORATORIES LTD

Incorporated in WA; a wholly owned subsidiary of Amdal Ltd

Postal Address: P.O. Box 58, Berrimah, Northern Territory 0828  
Marjorie Street., P.O. Box 58, Berrimah, Northern Territory 0828  
Telephone: (089) 32 2637 Facsimile: (089) 32 3531

Woodcutters Mine

P.M.B. 60

Winnellie

N.T. 0821

RECEIVED  
18 SEP 1991  
BY MAIL

## ANALYSIS REPORT :

Your Reference : 030951 D/S 11125	Our Reference : 1DN1141
Samples Received : 27/08/91	Results Reported : 11/09/91
Number of Samples : 57	Report Parts : A to B

This report relates specifically to the samples tested in so far as the samples supplied are truly representative of the sample source.

If you have any enquiries please contact the undersigned quoting our reference as above.

DURAJNDE Dome

### Report Codes:

N.A. -Not Analysed

L.N.R. -Listed But Not Received

I.S. -Insufficient Sample

A Ciplys

Approved Signature:

for

ALAN CIPLYS  
Manager - Darwin  
CLASSIC LABORATORIES LTD

\*\*\* RELIABLE ANALYSES AND SERVICE \*\*\*



CLASSIC LABORATORIES LTD

Job: 1DN1141A  
O/N: 030951 D/S 11125

inal

FOLLOW JOURNAL	TRACK	SAMPLE	Cu	Pb	Zn	As	Au	AuDup1
YTD1	PRECOAR	84782 3-4m	56	21	110	180	<0.02	--
		84783 4-5	59	19	120	270	0.03	--
		84784 5-6	41	16	135	220	<0.02	--
		84785 6-7	81	17	260	250	<0.02	--
		84786 7-8	55	16	120	100	0.03	--
		84787 8-9	54	20	57	110	<0.02	--
		84788 9-10	34	17	17	70	0.02	--
		84789 10-11	36	17	12	90	<0.02	--
		84790 11-12	23	19	10	80	<0.02	<0.02
		84791 12-13	61	17	38	120	<0.02	--
		84792 13-14	62	18	28	110	0.03	--
		84793 14-15	71	21	35	120	<0.02	--
		84794 15-16	88	16	50	160	<0.02	--
		84795 16-17	30	11	32	70	<0.02	--
		84796 17-18	22	6	36	70	<0.02	<0.02
		84797 18-19	24	9	50	80	<0.02	--
		84798 19-20	16	11	39	70	<0.02	--
		84799 20-21	30	9	58	80	<0.02	--
		84800 21-22	61	6	105	110	<0.02	--
		84801 22-23	58	9	110	110	<0.02	--
		84802 23-24	210	21	290	100	0.03	--
		84803 24-25	59	12	290	110	0.03	--
		84804 25-26	165	44	950	140	<0.02	--
		84805 26-27	94	27	880	110	<0.02	--
		84806 27-28	94	35	2960	140	<0.02	--
		84807 28-29	40	37	2280	190	<0.02	--
		84808 29-30 m	53	56	7900	310	<0.02	--

UNITS DET.LIM SCHEME	ppm 1 AAS2M	ppm 2 AAS2M	ppm 1 AAS2M	ppm 50 AAS2M	ppm 0.02 AAS7	ppm 0.02 AAS7
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## **APPENDIX III**

### **ANALYTICAL RESULTS -**

**WOODCUTTERS JOINT VENTURE  
CORE LOGGING SHEET**

Date : 21-23/8/91

Logged by: I. Butler

Hole: YTD 1

Page No. / of 2

1. Spotted slate
  2. Slate
  3. Dololutite
  4. Laminated dololutite
  5. Tuff marker bed
  6. Massive sulphides
  7. Calcareous dyke

8. Dolomite dyke
  9. Breccia
  10. Leached slate
  11. Dolomitic slate
  12. Cream dololutite
  13. Stromatolitic dololutite

Dip angles measured with respect to long core axis; sense measured with respect to cleavage

WOODCUTTERS JOINT VENTURE  
CORE LOGGING SHEET

Date: 21-23/8/91  
Logged by: J. Butler

HUMPHREY INC.

SAN DIEGO

HOLE NO. YTD-1

DEPTH 105 m

DRIFT - 60°

DIRECTION 65° m

DATE 23/8/91

DISC. No. D.D. 11

RE-ORDER FROM  
SEISMIC SUPPLY INT.

Distance from collar	Recovery %	RQD	Weathering	Structure	Cleavage	Bedding	Sense	Stratigraphy	Rock type	Dolomitic slate %	Dololutite %	Mineral Percentages						Sample Number				
												Galen	Sphalerite	Sulphosalt	Pyrite	Chalcocite	Sb2S3	Arsenopyrite	Pyrophyllite	Quartz	Carbonate	HMR
83.0																						
86.0	80	4																				
85.0	80	4		CLD																		
86.0	100	4																				
87.0	85	3																				
92.0	100	5																				
95.0	100	5	93	V2	70	50	S															
98.0	100	5			80	50	S															
101.0	100	5	*																			
104.0	100	5																				
107.0	100	4																				
110.0	100	4	108.5-S3																			
113.0	100	5		65	55	S																
116.0	100	5	*																			
119.0	100	6																				
122.0	100	5																				
125.0	100	5	-																			
128.0	100	5																				
131.0	100	4		70	55	S																
134.0	100	4	133.0																			
138.0	95	4																				
141.4	100	4																				
144.5	100	5																				
145.8	100	4	144.7-V2																			
149.0	100	4		80	55	S																

- Spotted slate
- Slate
- Dololutite
- Laminated dololutite
- Tuff marker bed
- Massive sulphides
- Calcareous dyke

- 8. Dolomite dyke
- 9. Breccia
- 10. Leached slate
- 11. Dolomitic slate
- 12. Cream dololutite
- 13. Stromatolitic dololutite

Dip angles measured with respect to long core axis, sense measured with respect to cleavage

## **APPENDIX IV**

### **PETROLOGY OF SELECTED SAMPLES FROM YTD 1**

# David Cowan & Associates Pty. Ltd.



## PETROLOGICAL & GEOLOGICAL SERVICES

BURRUNDIE DOME Proj E 7127

Mr. Ian Butler,  
Eupene Exploration Enterprises Pty. Ltd.  
Suite 4  
98 Woods Street,  
DARWIN N.T. 0800.

5 MOUNTFORD AVENUE,  
BRIDgewater, S.A. 5155  
Telephone (08) 339 5560

11th October 1991.

### REPORT DCA 91/9/1.

YOUR REFERENCE : BURR-288  
WOODCUTTERS MINE ON. 031077

DATE RECEIVED : 2nd SEPTEMBER 1991

SAMPLE NUMBERS : YTD1/71.4, 75.5, 77.0,  
77.5, 79.2, 106.4m.

SUBMITTED BY : Mr. IAN BUTLER.

WORK REQUESTED : PETROLOGY, MINERALOGY.

A handwritten signature in black ink, appearing to read "Cowan".

DAVID COWAN MAusIMM

REPORT 91/9/1.

At the request of Mr. Ian Butler a suite of six drill core samples was received for petrological and mineralographic examination. Representative polished thin sections were prepared and examined with a combination of transmitted, reflected and oblique incident light techniques, supplemented by carbonate stain tests where warranted.

Attached tabulated descriptions summarise the microscopic data and include interpretative comments.

SUMMARY

This suite comprises carbonaceous pelitic sediments, primarily dolomitic variants, and an impure limestone. There is evidence of retrograde alteration (eg of tremolite) in some samples but general assemblages are indicative of no more than Lower Greenschist Facies as the dominant metamorphic event.

Individual rocks exhibit pyritic sulphide assemblages locally supplemented by substantial proportions of arsenopyrite. Traces of sphalerite and chalcopyrite may be present and in this context the mineralisation may be considered as essentially bedded. On the other hand there are distinct examples of vein-type mineralisation and the mineralisation as a whole is best described as composite in style. This does not necessarily negate an overall stratiform style of mineralisation especially as an essentially Fe-Cu assemblage is represented in these rocks and this conceivably represents the typically stratabound rather than strictly stratiform footwall zone.

DAVID COWAN MAusIMM.

SAMPLE NO.: YTD-1/71.4m.

CLASSIFICATION: Graphitic Pyritic Phyllite.

COMPOSITION: Aggregates of polygonal quartz (mean 50μ) and fine grained graphite-stained muscovite. Disseminated to frequent quartz-muscovite pseudomorphs (mean 1.5mm) after a lathic to subradiating aluminosilicate (?andalusite). Disseminated opaques.

The band described above constitutes the bulk of the area sectioned. This is flanked by two units of distinctly micaceous and graphitic phyllite.

FABRIC: A 4cm wide band of altered porphyroblastic phyllite flanked by two bands of texturally simple finer grained phyllite. The phyllitic cleavage is essentially concordant to the centimetric scale banding.

OPAQUES: Mineragraphic examination reveals thinly disseminated pyrrhotite in the central band. Mean grainsize is about 75μ. Due to the soft graphitic matrix the polish is poor but the appearance in oblique incident light is diagnostic.

ACCESSORIES: Minor quartz veinlets essentially concordant to bedding and the concordant phyllitic cleavage.

COMMENTS: This rock may be categorised as a polymetamorphic phyllite. There is strong evidence of development of a pre-existing "blastic" phyllosilicate phase prior to development of the current phyllitic cleavage which reflects a simple greenschist facies regional metamorphism. The rock exhibits a syngenetic Fe-sulphide assemblage and lacks evidence of metasomatic as distinct from retrograde metamorphic effects.

SAMPLE NO.: YTD-1/75.5m.

CLASSIFICATION: Tremolitic Marble.

COMPOSITION: Aggregates of schistose-textured, weakly graphite stained, calcite (mean 100μ) with interspersed zones of similarly-textured but coarser grained vein-type calcite. Disseminated single laths and clusters of subhedral tremolite (to 1mm) and minor flakes of talc.

The Mg-silicates in this rock are partly corroded and replaced by secondary fine grained calcite.

FABRIC: Contorted schistose. Banded on a millimetric to centimetric scale. Veins are concordant to the banding.

Cont'd.

YTD-1/75.5 Cont'd.

OPAQUES: Thinly disseminated blebs (to 150 $\mu$ ) of pyritised pyrrhotite (banded distribution) with rare associated microscopic blebs of chalcopyrite.

ACCESSORIES: Minor secondary clots of limonite.

COMMENTS: This rock represents a slightly impure (carbonaceous, siliceous, magnesian) limestone metamorphosed under greenschist facies regional metamorphic conditions to a schistose marble. The minor sulphide content is of syngenetic character.

---

SAMPLE NO.: YDT-1/77.0.

CLASSIFICATION: Semi-Massive Sulphides.

COMPOSITION: Sulphide aggregates with minor interspersed lenses and aggregates of quartz. Minor foliae of muscovite and of finer grained phlogopite.

FABRIC: Crudely banded on a millimetric scale.

OPAQUES: Dominantly fine grained (<100 $\mu$ ) granular pyrite with subordinate to dominant proportions of microcrystalline pyrite which is clearly secondary after pyrrhotite. In relatively altered pyrrhotitic zones the Fe-sulphides are extensively replaced by limonite.

ACCESSORIES: Sporadic flakes of graphite.

COMMENTS: This sample represents a zone of near-massive Fe-sulphide mineralisation and was primarily a composite of pyrite and pyrrhotite. The pyrrhotite has been altered to secondary pyrite and both phases are partly altered to limonite.

The gangue in this rock is siliceous. A small proportion of the disseminated quartz grains are euhedral crystals and this suggests a vein-type paragenesis for this rock as a whole. Alternatively this rock could be considered as metasomatic after the impure limestone.

---

SAMPLE NO.: YDT-1/77.5.

CLASSIFICATION: Altered Tremolitic, Graphitic, Phyllite.

COMPOSITION: Aggregates of amphibole (?tremolite) pseudomorphic Mg-chlorite with interstitial masses of fine grained muscovite, intergranular graphite and minor quartz. Semi-pervasive spongy limonitic stainings representing partly degraded sulphides.

FABRIC: Crudely phyllitic with a relict amphibole metablastic habit.

Cont'd.

μ : microns

YDT-1/77.5 Cont'd.

OPAQUES: Conspicuously disseminated sub- to euhedral arsenopyrite (mean 200μm) and subordinate pyritised pyrrhotite (to 250μm). Both phases are partly corroded and ferruginised. Apart from rare microscopic blebs of sphalerite no other sulphides were detected in the area sectioned.

ACCESSORIES: None detected.

COMMENTS: This metapelite is not unlike that represented by Sample YDT-1/71.4m. In contrast an altered tremolitic, or primarily impure dolomitic, sediment is represented and this is consistent with the mineralised nature of this sediment by analogy with similar facies from, for example, the Koolpin Formation.

---

SAMPLE NO.: YDT-1/79.2.

CLASSIFICATION: Graphitic Pelite.

COMPOSITION: Aggregates of semi-sericitic white mica pervasively stained with ultrafine graphite, subordinate quartz and minor clots of phlogopite. sporadic clots of limonitic Fe-staining.

FABRIC: Phyllitic with minor concordant lenses of quartz and sulphide.

OPAQUES: Pervasively disseminated microscopic blebs of pyrite with subordinate coarser blebs (mean 50μm) of pyritised pyrrhotite.

The sparse quartz-sulphide lenses are dominated by granular pyrite with a little spongy pale sphalerite disseminated around the margin of the pyrite aggregates. The associated quartz locally includes intergranular blebs (50μm) of covellite.

ACCESSORIES: Minor corroded relics of pyrrhotite.

COMMENTS: This sample represents a compositionally simple graphitic pelite with a disseminated Fe-sulphide assemblage supplemented by traces of sphalerite and covellite. The covellite is the low temperature variety and is interpreted as supergene after chalcopyrite.

---

SAMPLE NO.: YDT-1/106.4

CLASSIFICATION: Veined, Spotted, Carbonaceous Pelite.

COMPOSITION: Aggregates of sericite strongly stained with ultrafine graphite, disseminated near-square to rhombic aggregates (mean 350μm) of chlorite representing altered diagenetic carbonate rhombs.

Cont'd.

YDT-1/106.4 Cont'd.

Minor quartz and crosscutting calcite veinlets.

The sectioned area includes a 3cm wide zone of saccharoidal-textured (recrystallised) vein quartz with small intraclasts of the graphitic host rock. This feature includes a disseminated sulphide assemblage. Elsewhere pyritic stringers pervade vein-marginal to -distal areas of the host rock.

FABRIC:

Weakly crenulated banded phyllitic with boudinaging effects about the vein/host rock contact.

OPAQUES:

The vein exhibits a composite assemblage of pyrite (granular to subhedral, mean 350 $\mu$ ) and similarly textured pyritised pyrrhotite with relatively quite minor silicate-intergranular and -included chalcopyrite.

The Fe-sulphides are extensively oxidised and the brown sphalerite-like masses seen mesoscopically are actually goethite. The pyritic stringers elsewhere in the rock are relatively fresh. These features include traces of pyrrhotite and of chalcopyrite but are similarly devoid of sphalerite.

ACCESSORIES:

Minor traces of apatite in the quartz vein. Minor late sideritic fractures.

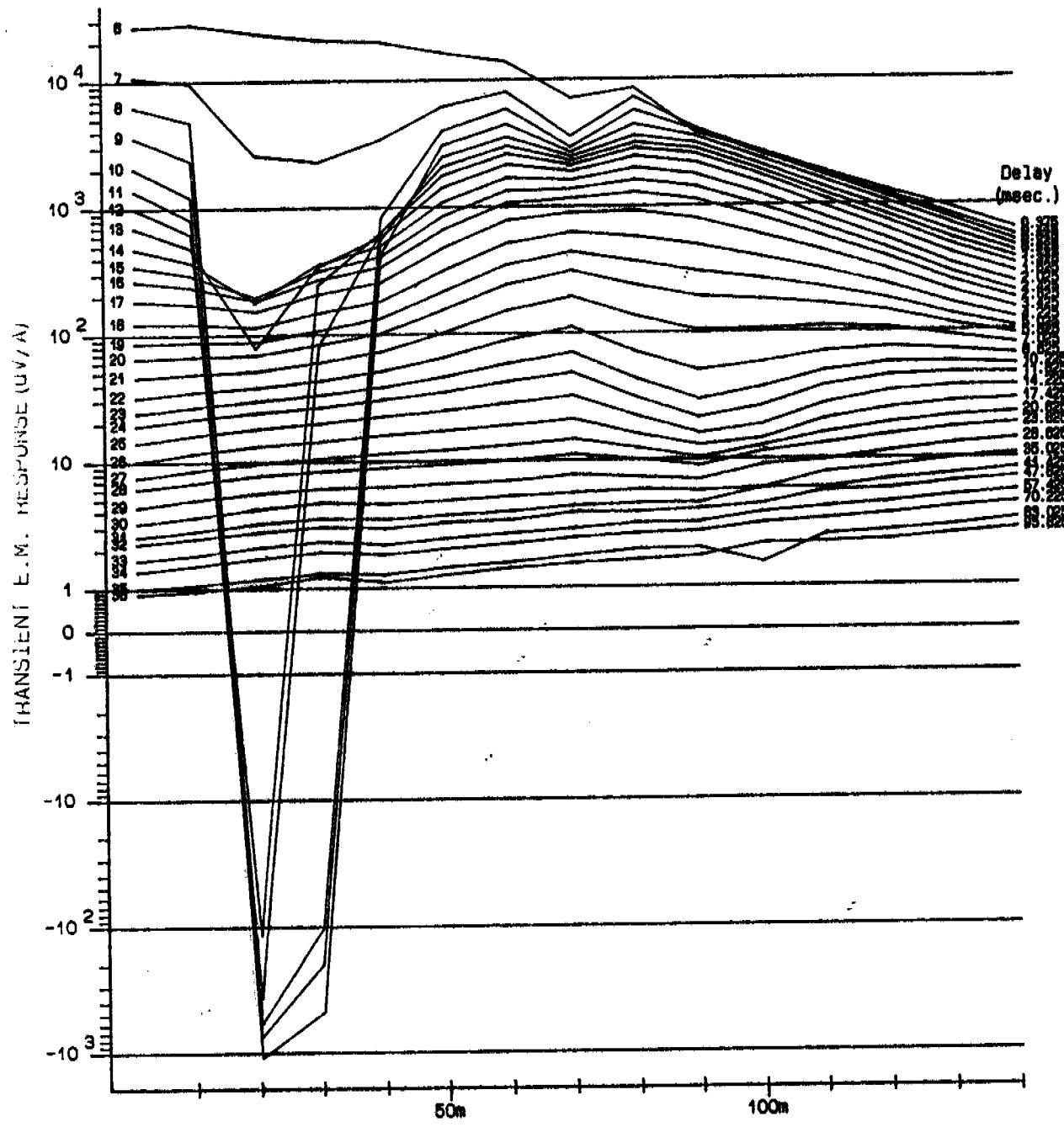
COMMENTS:

This sample represents an altered dolomitic carbonaceous pelite with a phase of pyritic quartz veining. Accessory proportions of chalcopyrite are present but there is no detectable sphalerite in the area sectioned. Persistence of oxidation effects at this depth may prove problematical in comparison of metal ratios with other zones of mineralisation.

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**APPENDIX V**

**DOWN HOLE SIROTEM PLOT -YTD 1**



CLIENT : AZTEC MINING COMPANY

AREA : BURRUNDIE DOME N.T.

GRID : YELLOW TRACK

HOLE REF : DHY1 CENTRE OF LOOP 1 (100X100) M

SCALE 1 : 1000

SOLO SIROTEM UNIT : MARK III --- S/N 1955 --- COMPOSITE TIMES

LOOP CONFIGURATION : Down Hole logging

LOOP SIZE : 100 metres

CHANNELS PLOTTED : 6 - 36 STACKS : 128 CURRENT : 13.5 Amps

SIROTEM Survey by SOLO GEOPHYSICS & CO. --- 09-09-91

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