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01_4621

Annual Report for Period Ending October 2001 -
EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

MINERAL RESOURCES
- 8 NOV 2001
TASMANIA

# *Allegiance Mining NL*

MICROFILMED
FICHE No.015662-66

## ZEEHAN PROJECT

## EL 28/1988

## ANNUAL REPORT FOR PERIOD ENDING OCTOBER 2001

MINERAL RESOURCES
FILE REF EL28/88 PT 6
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EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

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# 1. SUMMARY

During the 12 month period ending October 2001, the following work was undertaken on EL 28/88:

(i) completion of a scoping study on the Avebury nickel sulfide deposit
(ii) additional core drilling of the Avebury deposit
(iii) completion of a resource estimate and recommended development proposal report on the Avebury deposit
(iv) initial drill testing of the East Avebury prospect
(v) detailed mapping and sampling of the Burbank prospect

At ***Avebury,*** exploration by Allegiance, costing approximately $3M, has identified a nickel sulfide resource estimated to contain an inferred and indicated resource of **3Mt 1.5-1.7% Ni**, occurring principally as pentlandite. There are excellent opportunities to substantially increase this resource.

The Scoping Study suggested Avebury could be commercially developed as an underground mine extracting 300,000 tpa for the production of 4,000 tpa of contained nickel in premium high grade sulfide concentrates. The Study recommended the project be advanced to completion of a full feasibility study based on the results of a major surface drilling program.

Subsequent technical studies and financial modeling suggest a 500,000 tpa operation producing 7,000 tpa nickel in concentrates over a 6 year minimum life of mine would represent a more commercially attractive and robust operation. On this basis, it is recommended that the project be advanced to full feasibility study status by development of an exploration decline into the deposit, from which necessary technical data could be acquired, at a total cost of $5M. A short drilling program should precede the decline development to both elevate confidence in the South Avebury resource and assist with the decline planning.

At ***East Avebury,*** a four hole drilling program totaling 1557m. was completed to undertake an initial assessment of the East Avebury anomaly.

Significant nickel sulfides were intersected in a south dipping ultramafic body, adding support to the view that East Avebury has a very high potential to host a deposit similar to Avebury. If such a resource was confirmed by subsequent drilling, it would provide a basis for further up-sizing and life extension of an Avebury operation.

At ***Burbank,*** detailed follow-up mapping and surface rock chip geochemical sampling confirmed the highly nickel anomalous nature of the outcropping ultramafics in this area. Drilling is required to evaluate the sub-surface potential.

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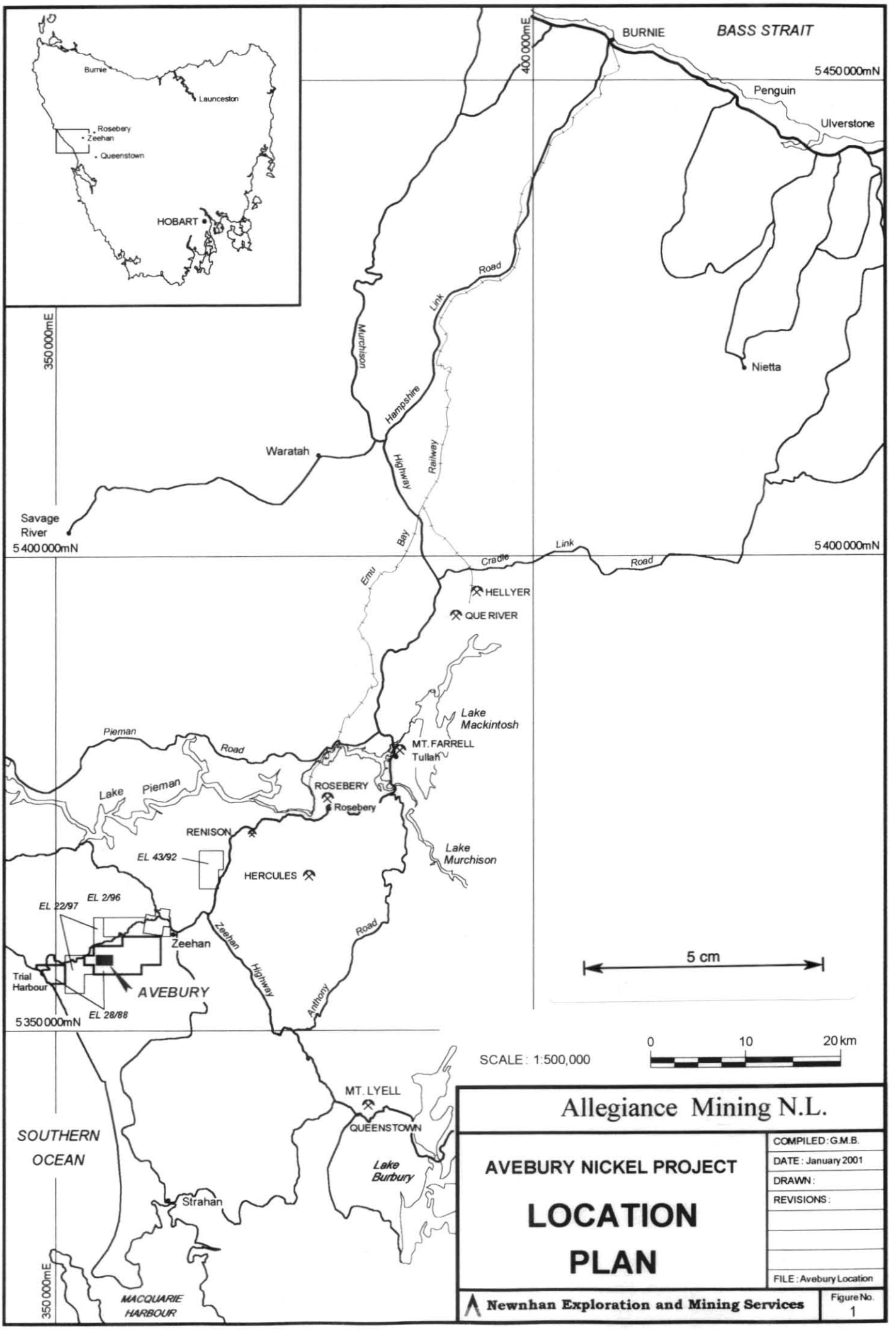


Allegiance Mining N.L.

**AVEBURY NICKEL PROJECT**

# LOCATION PLAN

| | |
|---|---|
| COMPILED : G.M.B. | |
| DATE : January 2001 | |
| DRAWN : | |
| REVISIONS : | |
| | |
| | |
| | |
| FILE : Avebury Location | |

Newnhan Exploration and Mining Services

Figure No. 1

# 2. AVEBURY SCOPING STUDY

## 2.1 Objectives

Following a series of exploration programs on Avebury, including 26 cored drill holes, Allegiance decided to complete a Scoping Study on the then known deposits to define both the commercial potential of the discovery and the requirements necessary to further evaluate and progress the project.

The study had four principal objectives:

(i) conceptualise a style of operation which might be developed on the currently identified mineral resources.
(ii) estimate capital and operating costs attributable to such an operation
(iii) identify requirements necessary to advance the project to completion of a full feasibility study
(iv) estimate the cost of completing a full feasibility study

## 2.2 Contributing Reports

The following contributing reports were prepared by a team of relevant professionals, and collectively constitute the Scoping Study:

**Identified Mineral Resource Estimate:**

*"Allegiance Mining NL. Avebury Nickel Project Mineral Resource Report, November 2000"* prepared by Michael V McKeown of McKeown Mining Pty Limited

**Mineral Resource Potential Assessment:**

*"Allegiance Mining NL. Avebury Nickel Project Scoping Study. Mineral Resource Potential Report"* by Lindsay A Newnham, Newnham Exploration & Mining Services, January 2001

**Mining:**

*"Avebury Prospect Mine Scoping Study, December 2000"* prepared by AJ Bruce Consulting Pty Limited

**Milling:**

(a) *"Avebury Nickel Project Metallurgical Scoping Study for Allegiance Mining NL"* by GP Sheldon of Metcon Laboratories, December 2000

(b) *"Avebury Nickel Project Metallurgical Scoping Study for Allegiance Mining NL"* by John E Butler, December 2000

**Infrastructure:**

*"Allegiance Mining NL. Avebury Nickel Project Scoping Study Infrastructure Development and Support Services"* by Lindsay Newnham, Newnham Exploration & Mining Services, January 2001

**Environment:**

*"Allegiance Mining NL. Avebury Nickel Project Scoping Study - Environment"* by NSR Environmental Consultants Pty Limited, December 2000

**Marketing:**

(a) *"Avebury Nickel Project - Marketing Scoping Study. Report for Allegiance Mining NL, November 2000"* by John O'Shea and Associates

(b) *"Avebury Nickel Project Marketing Scoping Study for Allegiance Mining NL"* by John E Butler, December 2000

## 2.3 Conclusions

The summary conclusions of the Scoping Study are:

Drilling programs by Allegiance Mining NL have discovered a nickel sulfide resource at Avebury near Zeehan in western Tasmania.

The identified resource, which occurs in two deposits, is estimated as:

| Deposit | Resource Category | Tonnes | % Ni |
|---|---|---|---|
| North Avebury | Indicated | 990,000 | 1.7 |
| South Avebury | Inferred | 2,110,000 | 1.7 |
| **TOTAL** | | **3,100,000** | **1.7** |

Technical studies completed at a scoping study level suggest this resource is capable of supporting a medium sized operation with the following statistics:

| | | |
|---|---|---|
| Annual throughput | : | 300,000 tpa |
| In-situ resource grade | : | 1.7% Ni |
| Mill head grade | : | 1.6% Ni |
| Mill recovery | : | 88.9% |
| Nickel recovered | : | 4,270 tpa |
| Concentrate grade | : | 22% Ni |
| Concentrate production | : | 19,400 dry tpa |
| Shipped concentrate | : | 21,000 wet tpa |
| Life-of-mine | : | 10 years |

Mining would be an underground combination of bench and open stoping accessed by a single decline.

Nickel would be recovered in a conventional sulfide flotation mill.

Concentrates would be road and rail freighted to Burnie for shipment to a smelter.

Infrastructure would be developed on a flat, relatively open area adjacent to the deposit and the workforce based in Zeehan.

The operation would employ 80-90 people during both construction and operation.

This scoping study estimates total operating costs as $60/tonne ore = $18M pa, averaged over the life-of-mine.

Capital costs are estimated as $32.2M prior to production, and a further $3.7M during operations.

The high nickel grade of the concentrates makes them a premium product, and a competitive sales agreement could be anticipated.

Sales revenue is strongly affected by metal price, currency exchange rates, smelting costs, royalties and other ex-mine deductibles.

At a nickel price of US$7,000/tonne and an exchange rate of A$ = US$0.55, net sales revenue is estimated as A$35.8M pa.

At a nickel price of US$ 6,750/tonne and an exchange rate of A$ = US$0.60, net sales revenue is estimated as A$31.12M pa.

***From this net sales estimate, mine operating, capital and taxation and depreciation costs must be deducted.***

Additional technical and financial studies are required to complete a full/final feasibility study on which a development decision could be based.

Such a feasibility study is estimated to take one year to complete, at a cost of A$3.2M.

Upon completion of a favourable feasibility study, a permitting, construction and mine development period of two years is required.

Substantial potential exists in the Avebury area to identify additional nickel sulfide resources at a number of prospects. Any such discoveries would benefit development of Avebury in terms of both reducing costs by increasing annual throughput and extending mine life.

***A two-year exploration program costing A$0.9M pa is required to evaluate these prospects in a timely fashion with the Avebury evaluation program.***

## 3. ADDITIONAL DRILLING AT AVEBURY

Following completion of the Scoping Study, a further four cored drill holes (A027, A028, A029 and A034) totaling 1331 m. were completed to better define the South Avebury deposits.

Logs and assays of these holes are attached as Appendix 1 and 2 respectively. Sections, plans and longitudinal projections are incorporated in the report:

> *"Avebury Nickel Sulfide Project EL28/1988- Western Tasmania. Resource Report and Project Development Recommendations Report" July 2001, by L.A. Newnham*

***A 027*** was drilled to test for easterly extensions of South Avebury mineralisation intersected in A 026. It intersected a broad zone of strongly altered conglomeratic rocks with a mafic-ultramafic component, but nickel values were low.

***A028*** was designed to test for western extensions of South Avebury mineralisation in A014. It intersected a 63 m wide zone of ultramafic rocks containing several zones of >1% Ni. The high grade zones on the north and south margins of the ultramafic were interpreted as equivalent to the South Avebury North and South Lenses respectively and assayed:

North Lens: 11.0 drill metres 1.23% Ni, 3.15% S
South Lens: 4.8 drill metres 1.55% Ni, 1.73% S

***A 029*** was drilled above A028 but failed to intersect any ultramafic rocks or significant nickel mineralisation. It is interpreted as having passed over the top of the South Avebury anticline of serpentinised host rocks.

***A034*** was drilled beneath A028. It intersected a broad zone of altered ultramafic rocks, with major sulfide zones developed on the north and south margins, corresponding to South Avebury South Lens and South Avebury North Lens respectively.

Principal intersections were:

North Lens: 9.6 drill metres 1.39% Ni, 2.0% S
4.1 drill metres 1.98% Ni, 3.0% S
South Lens: 9.0 drill metres 0.40% Ni, 3.7% S

Most of the South Lens sulfide was present as pyrrhotite which constitutes 8-10% of the core (ie) semi-massive sulfide.

The results of these four drill holes were incorporated into a geological reinterpretation of the Avebury deposits (see section 4 below).

# 4. RESOURCE ESTIMATION and DEVELOPMENT RECOMMENDATIONS REPORT

Following completion of the additional Avebury drilling detailed in section 3 above, the geology of the Avebury district was reinterpreted and the Avebury resource re-estimated using a manual isoline (non-geostatistical) method.

In conjunction with this work, an alternative approach to the further evaluation and development of Avebury was developed.

The outcomes of this work are detailed in:

*"Avebury Nickel Sulfide Project EL 28/1988-Western Tasmania. Resource Report and Project Development Recommendations Report" July 2001, by L.A.Newnham for Allegiance Mining NL*

An alternative approach to the further development of Avebury was necessitated by the need to:

- improve the commercial robustness of the project which was demonstrated in the Scoping Study to be very sensitive to nickel price.
- reduce lead time to first production from the three years estimated in the Scoping Study
- acquire better technical data on which to complete a full feasibility study, than was possible from surface drilling alone.

The commercial robustness of the project could be improved by scaling-up production to 500,000 tpa over a minimum six year life of mine.

The lead time to first production of concentrates could be reduced from three to two years by acquiring technical data necessary for a full feasibility study from an exploration decline rather than a surface drilling program.

The quality of such technical data would be enhanced if acquired from this decline as opposed to surface drilling.

A short drilling program should precede decline development to improve confidence in the South Avebury resource and facilitate decline planning.

# 5. EAST AVEBURY DRILLING PROGRAM

## 5.1 Purpose of Program

The East Avebury area lies approximately 800 m. east of Avebury, and was initially identified as a large aeromagnetic anomaly. Subsequent IP, rock and soil geochemistry surveys and mapping programs have supported the view that the area is closely analogous to Avebury.

One hole (ZA 2) drilled by CRA in 1997 intersected 3.8 m.1.67% Ni within a serpentinised ultramafic.

Discovery of additional resources at East Avebury would provide a sound basis for increasing the output, over an extended period of time, from any operation initially established on Avebury.

## 5.2 Work completed

Four holes totaling 1557m. were completed to test East Avebury. Drill logs and assay results are appended as Appendices 2 and 3 respectively. An interpretation of results is presented on Figures 2(a)...2(h).

A road was developed from Avebury to East Avebury to facilitate access. Drilling was completed by Almac. Collars were surveyed by licenced surveyor CSPP and down-hole surveys by single-shot camera. All holes were PVC lined.

## 5.3 Results

***A030*** was designed to test two aeromagnetic anomalies with co-incident geochemical and IP anomalism. It intersected a skarned calcareous sediment followed deeper in the hole by a serpentinised ultramafic.

The skarned sediment contained abundant magnetite (hence the northern aeromagnetic anomaly) and significant Pb-Zn mineralisation including 2m. 1.03% Zn. Only minor sulfide mineralisation was intersected on the ultramafic margin.

***A031*** was designed to test the same anomaly as A030, 50m. further to the east. It collared in the magnetite bearing skarned sediment and passed through a narrower ultramafic body at depth. The southern margin of the ultramafic was very broken and was possibly faulted. Only minor disseminated sulfide was present.

***A032*** was drilled 100m. east of A031 and was designed to further test for mineralisation in the ultramafics in this area previously intersected in hole ZA2.

Two serpentinised ultramafics were intersected:

- the northern body was approximately 25m. thick and contained only trace sulfide. The ZA2 equivalent intersection was 90m below A032, and intersected 2.2m 0.57% Ni and 1.1m. 0.98% Ni.
- the southern body contained extensive zones of sulfide mineralisation, carrying significant zinc and nicolite in places, and the hole terminated in ultramafics. The best intersection occurred on the northern margin :

13.5 drill metres 0.55% Ni
including 0.3 m 2.1% Ni

***A033*** was designed to test the southern ultramafic 50 m. east and above A032. It intersected a broad zone of mineralisation on the northern contact of this ultramafic, and again the hole was stopped in highly altered ultramafics. The best intersection within the northern zone was:

23 drill metres 0.85% Ni
including 4.0 m. 1.25% Ni
and 5.4 m. 1.12% Ni

## 5.4 Interpretation of results

Seven drill holes have now been completed into the East Avebury anomaly, testing the ultramafic host rock formations over a 600 m. strike length.

At this early evaluation stage, they are interpreted as suggesting the area is underlain by an anticlinally folded serpentinised ultramafic body which dips steeply south and plunges west. This body is disrupted and displaced by one, possibly two, steeply dipping N-S faults.

Nickel sulfide mineralisation encountered to date appears focused on the northern margin of the south limb of the anticline over a strike length of 300+ metres. To date, there are four holes into this mineralised zone viz. ZA2 and ZA3 drilled by CRA and A032 and A033 by Allegiance.

The CRA holes present some minor interpretation problems. It is possible that, whilst the collars have been accurately located and surveyed by Allegiance, there may be some problems with the down-hole surveys.

The interpreted fault between A031 - A032/ZA2 may not exist if in fact the strike of the ultramafic hosts and enclosing sediments is more SE than ESE as shown. Such an alternative interpretation is useful as it presents potential for an E-plunging shoot of mineralisation to come close to surface in the vicinity of major geochemical and geophysical anomalies above A031 (see Fig (2(h)).

That is, there is potential in the East Avebury area for development of shallow mineralisation.

The skarned calcareous sediments intersected in the top sections of A030 and A031 are instructive in the district interpretation of aeromagnetic and geochemical anomalies. These skarns are widespread and are certainly prospective for zinc (cf) Tenth Legion - East Heemskirk area. However, they are currently not interpreted as prospective for nickel and thus can be misleading when interpreting district data.

### 5.5 Conclusions and Recommendations

Limited drilling to date suggests East Avebury is a substantial zone of nickel sulfide mineralisation and is closely analogous to Avebury. Mineralisation as known to date is developed on the north flank of a SE trending altered ultramafic body which has been disrupted by N-S faulting.

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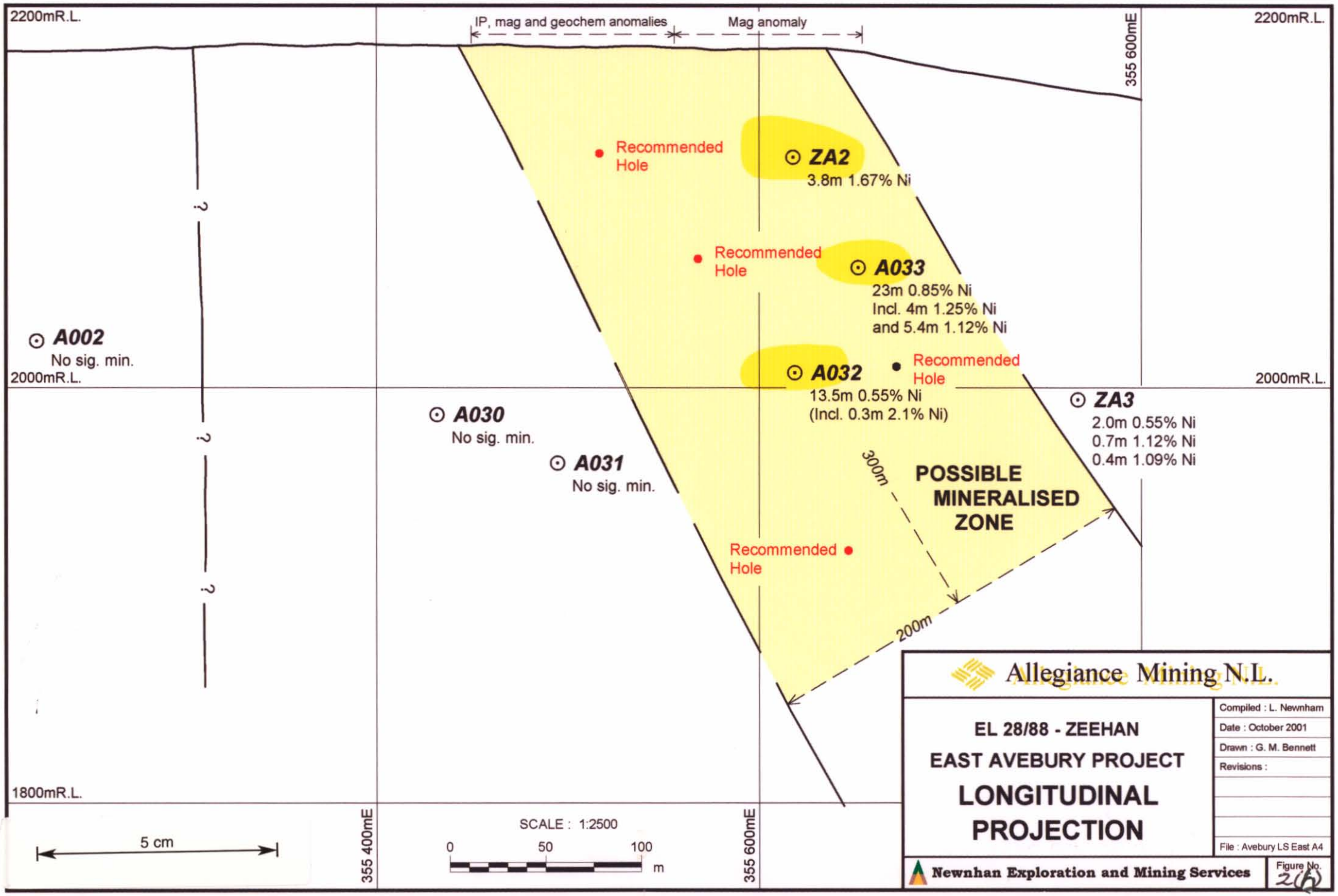
2200mR.L.
IP, mag and geochem anomalies
Mag anomaly
355 600mE
2200mR.L.
Recommended Hole
ZA2
3.8m 1.67% Ni
Recommended Hole
A033
23m 0.85% Ni
Incl. 4m 1.25% Ni
and 5.4m 1.12% Ni
A002
No sig. min.
2000mR.L.
A032
13.5m 0.55% Ni
(Incl. 0.3m 2.1% Ni)
Recommended Hole
2000mR.L.
ZA3
2.0m 0.55% Ni
0.7m 1.12% Ni
0.4m 1.09% Ni
A030
No sig. min.
A031
No sig. min.
300m
POSSIBLE MINERALISED ZONE
Recommended Hole
200m
1800mR.L.
5 cm
355 400mE
SCALE : 1:2500
0 50 100 m
355 600mE
Allegiance Mining N.L.
EL 28/88 - ZEEHAN
EAST AVEBURY PROJECT
LONGITUDINAL PROJECTION
Compiled : L. Newnham
Date : October 2001
Drawn : G. M. Bennett
Revisions :
File : Avebury LS East A4
Newnhan Exploration and Mining Services
Figure No. 20

At this early stage of drill testing, the most prospective area appears to be an east plunging zone of mineralisation defined by ZA2, ZA3, AO32, A033. Further drilling of this zone (as shown on Fig 2(h) is strongly recommended as discovery in this area would positively impact on the development of Avebury, particularly if the zone came close to surface.

Future drill holes should be drilled S to N, which would require a minor extension of the access road.

## 6. BURBANK EXPLORATION

The Burbank area south of Trial Harbour was identified by previous surveys undertaken by Allegiance, to be underlain by a faulted block of altered ultramafic rocks which were strongly (>1% Ni) anomalous.

To confirm this anomalism prior to a commitment to drill testing, the area was further mapped and sampled during the year.

Results of this mapping and sampling are attached as Figs 3(a)...3(d).

The additional work confirmed that an area approx 200 m. long by 70 m. wide is strongly anomalous.

Drill testing is recommended to test the depth extent of the mineralisation.

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# APPENDIX 1

## AVEBURY DRILL LOGS
## A027, A028, A029, A034

861020

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**

| | |
|---|---|
| **Commenced:** | 21 November 00 |
| **Completed:** | 05 December 00 |
| **Logged By:** | L.A.Newnham |
| **Drilled By:** | Almac Drilling |

**Purpose of Hole**

To test South Avebury approx. 50 m. up dip of A026 intersection;

**Comments on Completion**

hole failed to intersect any significant mineralisation; intersected broad sequence of mafic rocks including mafic conglomerates and minor ultramafic sections; these units possibly are less altered and unmineralised equivalents of mineralised zone in A 026;

**Collar Details**

| Grid | Northing | Easting | Elevation | Dip | Bearing |
|---|---|---|---|---|---|
| AMG | 5 357 359 | 354 541 | 2164.4 | -45 | 179 |

| Length (m) |
|---|
| 287.9 |

**Hole Size**

| To (m) | Size |
|---|---|
| 101.5 | HQ |
| 287.9 | NQ |
| | |
| | |
| | |

**Significant Core Loss Zones**

| From | To | %Rec. |
|---|---|---|
| 0.0 | 65.0 | see log |
| 118.2 | 121.0 | 30 |
| | | |
| | | |
| | | |

**Hole Condition on Completion**

all steel was removed from hole and PVC placed in hole;

**Summary of Results:**

| Depth | | Recovery | Description | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | % | | Length | Ni | As | Cu | Zn | Cr | Co | S |
| | | | | | % | % | % | % | ppm | ppm | % |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## DOWN HOLE SURVEY DATA

**COMPANY: Allegiance**
**PROJECT: Avebury Project**
**HOLE NUMBER: A 027**

861021

| Depth | Dip | Bearing | Interval | | Length | Vertical Distance | | Horizontal Distance | | Co-ordinates | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (m) | | (AMG) | From | To | (D) | D.sin dip | R.L. | D. cos dip (HD) | Cumulative HD | N. distance HD. cos brg. | N. co-ordinate | E. distance HD. sin brg. | E. co-ordinate |
| COLLAR | -45 | 179 | | | | | 2164.00 | | 0.00 | | 5,357,359.0 | | 354,541.0 |
| 0 | -45 | 179 | 0 | 12.5 | 12.5 | 8.84 | 2155.16 | 8.84 | 8.84 | -8.84 | 5,357,350.2 | 0.15 | 354,541.2 |
| 25 | -45 | 179 | 12.5 | 37.5 | 25 | 17.68 | 2137.48 | 17.68 | 26.52 | -17.67 | 5,357,332.5 | 0.31 | 354,541.5 |
| 50 | -46 | 178 | 37.5 | 79.5 | 42 | 30.21 | 2107.27 | 29.18 | 55.69 | -29.16 | 5,357,303.3 | 1.02 | 354,542.5 |
| 109 | -46 | 176 | 79.5 | 131 | 51.5 | 37.05 | 2070.23 | 35.77 | 91.47 | -35.69 | 5,357,267.6 | 2.50 | 354,545.0 |
| 153 | -46 | 179 | 131 | 159.5 | 28.5 | 20.50 | 2049.72 | 19.80 | 111.26 | -19.79 | 5,357,247.8 | 0.35 | 354,545.3 |
| 166 | -45 | 179 | 159.5 | 183 | 23.5 | 16.62 | 2033.11 | 16.62 | 127.88 | -16.61 | 5,357,231.2 | 0.29 | 354,545.6 |
| 200 | -44 | 179 | 183 | 225 | 42 | 29.18 | 2003.93 | 30.21 | 158.09 | -30.21 | 5,357,201.0 | 0.53 | 354,546.1 |
| 250 | -42 | 169 | 225 | 269 | 44 | 29.44 | 1974.49 | 32.70 | 190.79 | -32.10 | 5,357,168.9 | 6.24 | 354,552.4 |
| 288 | -41 | 170 | 269 | 288 | 19 | 12.47 | 1962.02 | 14.34 | 205.13 | -14.12 | 5,357,154.8 | 2.49 | 354,554.9 |
| 288 | | | | | | | | | | | | | |

**Note:** Down-hole camera surveys are influenced by the adjacent magnetic serps; a comparison of collar theodolite surveys and compass readings indicates the compasses are reading 10-11° too high; thus the adjustment to AMG is magnetic + 2°;

The last down hole survey at 259 m. indicated a strong bearing swing, possibly due to high bit weights required to cut hard ground; may also be due to the hole moving away from the influence of the main magnetic serp. body (ie) the correction factor may be less than higher in the hole in which case the hole may be straighter than shown;

861022

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 0.0 | 31.5 | **WEATHERED ALTERED SEDIMENTS:** decomposed weathered sediments (shales-argillites); generally orange-brown, mottled purple and green in patches; original sediments appear to be altered and extensively fractured; BCA 65°; fractures infilled with botyroidal manganese and limonite: originally these fractures may have been infilled with late stage sulfides; core very brokenand crumbly with no cohesive strength; some core loss zones; becoming fresher towards base of unit; | 0.0 | 5.5 | 45 | | | | | | | | | | | |
| | | | 5.5 | 8.5 | 70 | above | 46.6 | 0 | | | | | | | | |
| | | | 8.5 | 11.5 | 75 | | | | | | | | | | | |
| | | | 11.5 | 14.5 | 60 | | | | | | | | | | | |
| | | | 14.5 | 17.5 | 95 | | | | | | | | | | | |
| | | | 17.5 | 20.5 | 80 | | | | | | | | | | | |
| | | | 20.5 | 23.5 | 85 | | | | | | | | | | | |
| | | | 23.5 | 26.5 | 65 | | | | | | | | | | | |
| | | | 26.5 | 29.5 | 100 | | | | | | | | | | | |
| | | | 29.5 | 32.5 | 50 | | | | | | | | | | | |
| 31.5 | 47.2 | **ALTERED SEDIMENTS- weathered in part:** continuation of unit above but less weathered; BCA recognised in places: 60-70°; fractures and veins infilled with orange clays (limonite) and manganese, possibly as result of weathered sulfided in fractures; minor core losses; core still very broken; fractures commonly infilled with soft pale green talcose clay; | 32.5 | 35.5 | 100 | | | | | | | | | | | |
| | | | 35.5 | 38.5 | 65 | | | | | | | | | | | |
| | | | 38.5 | 41.5 | 70 | | | | | | | | | | | |
| | | | 41.5 | 44.5 | 85 | | HQ core | | | | | | | | | |
| | | | 44.5 | 47.1 | 90 | 46.6 | 49.8 | 20 | | | | | | | | |
| 47.2 | 80.4 | **ALTERED SEDIMENTS:** base of weathering 47 m; mottled light and dark gray - purple hornfelsed sediments; fine grained actinolite abundant along with phlogopite and patches of shorl; **55.0-59.0 m:** fine spotting and streaks of soft bright green mineral in purple colored sediments, often accompanied by fine sulfides; BCA vague 60-70°; minor sulfides (py?) infilling narrow anastomosing veins accompanying brecciation; core very broken with limonite on fracture surfaces; but overall very fresh; | 47.1 | 55.5 | 100 | | | | | | | | | | | |
| | | | 55.5 | 59.5 | 85 | 49.8 | 52.7 | 20 | | | | | | | | |
| | | | | | | 52.7 | 55.8 | 50 | | | | | | | | |
| | | | | NQ core | | 55.8 | 59.5 | 50 | | | | | | | | |
| | | | 59.5 | 63.7 | 45 | | | | | | | | | | | |
| | | | 63.7 | 65.5 | 40 | | NQ core | | 56.0 | 57.0 | 0.01 | <0.05 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | 65.5 | 67.0 | 80 | 59.5 | 67.3 | 20 | 57.0 | 58.0 | 0.01 | <0.05 | <0.01 | <0.01 | 0.03 | <0.01 |
| | | | 67.0 | 68.7 | 100 | 67.3 | 71.9 | 40 | | | | | | | | |
| | | | 68.7 | 69.8 | 65 | 71.9 | 76.1 | 60 | 70.0 | 71.0 | <0.01 | 2.05 | 0.02 | <0.01 | 0.01 | <0.01 |
| | | | 69.8 | 73.0 | 100 | 76.1 | 80.0 | 60 | 71.0 | 72.0 | 0.01 | 1.38 | 0.02 | <0.01 | 0.02 | <0.01 |
| | | | 73.0 | 75.1 | 90 | | | | | | | | | | | |
| | | | | HQ core | | | | | | | | | | | | |

861023

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| .47.2 | 80.4 | drillers recorded 3 core loss zones (cavities): | . | HQ core | | | | | | | | | | | | |
| continued..... | | 62.2-63.7 m., 64.5-65.5 m., 69.4-69.8 m. possibly associated with fault zone; | 74.5 | 80.2 | 100 | | | | | | | | | | | |
| | | **69.8-71.5 m:** dark gray hornfels with substantial pyrite infilling fractures; | | | | | | | | | | | | | | |
| | | **76.0-79.0 m:** distinct and uniform bedding 70-75° CA; | | | | | | | | | | | | | | |
| | | **Note: this hole was reduced to NQ at 59.5 m., and then advanced to 119 m. at which point it was abandoned because of continuing problems higher in the hole; an attempt was made to ream the HQ from 59.5 m., but it lipped out and started a new hole at 71.5 m. This new hole was then advanced HQ to 101.5 m. where it was reduced to NQ. any samples taken for assay in the section where there were two adjacent holes (ie) 72.0-119 m., were whole NQ core from the first hole, which meant the adjacent HQ core was retained whole, but no NQ core remains from these intervals;** | | | | | | | | | | | | | | |
| | | **below 79 m:** hornfels more mottled because of extensive phlogopite and actinolite alteration; | | | | | | | | | | | | | | |
| | | white quartz seggregations and overall fractured appearance; | | | | | | | | | | | | | | |
| | | BCA's generally 70°; | | | | | | | | | | | | | | |
| | | soft bright green mineral common in some sections as seggregations and veinlets, often accompanied by disseminated sulfide- pyrite ? sulfides (pyrite ?) becoming common towards base of unit, infilling cracks, joints and minor veinlets (ie) late stage fracture fillings; core generally very broken along several joint sets, becoming more broken towards base of unit; | | | | | | | 79.0 | 80.0 | <0.01 | 0.63 | 0.04 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 80.0 | 81.0 | <0.01 | 0.77 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 81.0 | 82.0 | <0.01 | 1.56 | 0.03 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 82.0 | 83.0 | 0.01 | 0.13 | 0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 83.0 | 84.0 | 0.01 | 0.34 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 84.0 | 85.0 | 0.01 | 0.43 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 85.0 | 86.0 | 0.01 | 0.39 | 0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 86.0 | 87.0 | 0.02 | 0.6 | 0.02 | 0.01 | 0.01 | <0.01 |
| 80.4 | 95.0 | **BRECCIATED and SULFIDIC SEDIMENTS, SEVERAL PUG ZONES, possible fault zone:** dark gray and purplish hornfelsed sediments, strongly brecciated and fractured in places; sulfides (pyrite ?) minor -common as late stage fracture infillings, large patches in breccia matrices and as discordant seams and veinlets associated with bedding; **80.4-81.6 m:** sediments very fractured and ... | 80.2 | 83.5 | 90 | 80.0 | 85.0 | 20 | 87.0 | 88.0 | 0.01 | 0.15 | <0.01 | 0.02 | 0.01 | 0.01 |
| | | | 83.5 | 86.5 | 60 | 85.0 | 89.9 | 30 | 88.0 | 89.0 | 0.01 | 0.63 | 0.01 | <0.01 | 0.01 | <0.01 |
| | | | 86.5 | 88.4 | 100 | 89.9 | 94.2 | 50 | 89.0 | 90.0 | <0.01 | 0.88 | 0.01 | <0.01 | 0.01 | <0.01 |
| | | | 88.4 | 89.5 | 95 | | | | 90.0 | 91.0 | 0.01 | 1.23 | 0.01 | <0.01 | 0.01 | <0.01 |
| | | | 89.5 | 95.0 | 100 | | | | 91.0 | 92.0 | 0.01 | 0.7 | 0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 92.0 | 93.0 | 0.01 | 0.28 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 93.0 | 94.0 | 0.01 | 0.75 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 94.0 | 95.0 | <0.01 | 0.21 | <0.01 | <0.01 | 0.01 | <0.01 |

861024

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 80.4 continued..... | 95.0 | brecciated with quartz and sulfides in some zones;<br>bedding in hard hornfels is generally 70° CA;<br>**below 88 m:** sulfides abundant as late stage infillings in fractures within the brecciated hornfels;<br>**88.5 m:** 100 mm. gray pug zone within a rubbly interval; base of zone marked by gradual decrease in fracturing and accompanying sulfides;<br>**91.4 m:** 100 mm. brown clay pug zone; | | | | | | | | | | | | | | | |
| 95.0 | 122.0 | **MOTTLED HORNFELSED SEDIMENTS:**<br>dark gray-pinkish sediments, with irregular zones of bleached brecciated hornfelsed sediments resulting in mottled appearance;<br>**105.0-108.0 m:** finer grained dark gray-purplish hornfelsed sediments with abundant sulfides (pyrite?);<br>BCA 70-80°;<br>**below 108 m:** mottled hornfels contains minor pyrite (?) as thin late stage veins and aggregations around brecciated sediments;<br>ground conditions good;<br>grades into unit below; | 95.0 | 118.2 | 100 | | | | 95.0 | 96.0 | <0.01 | 0.37 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | 118.2 | 121.0 | 30 | ground | | | 96.0 | 97.0 | 0.01 | 0.18 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | away | | | | | | | | | | |
| | | | 121.0 | 122.0 | 100 | | | | 104.0 | 105.0 | <0.01 | 0.98 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 105.0 | 106.0 | 0.01 | 1.87 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 106.0 | 107.0 | 0.01 | 1.72 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 107.0 | 108.0 | 0.01 | 1.14 | 0.02 | <0.01 | 0.01 | <0.01 |
| 122.0 | 132.6 | **ALTERED MAFIC ROCK:**<br>dark green fine grained mafic sediment (?), strongly altered with large irregular patches of white carbonate-quartz and schorl;<br>dark green coloration due to abundant development of fine grained actinolite, commonly fibrous;<br>trace-minor sulfides pyrite (?), as small blebs and aggregations;<br>irregular white carbonate veining 1-10 mm. common in some zones;<br>core moderately broken along irregular anastomosing fracture surfaces, greasy in places;<br>grades into unit below..... | 122.0 | 132.6 | 100 | | | | | | | | | | | |

861025

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 027



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 132.6 | 199.0 | **HORNFELSED SEDIMENTS:** mottled dark gray-white medium grained hornfelsed sediments, grading down hole into mafic altered pebble conglomerates (?); BCA's near top of interval 60-70° but gradually decreases down hole to be 30-40° towards base; only very minor specs of sulfides; core generally competent especially towards base of unit; **132.6-147.5 m:** banded mottled dark gray and light gray hornfelsed medium grained sediments; brecciated appearance in places; BCA generally 60-70°; broken ground; **147.5-156.0 m:** similar to above but well bedded units interbedded with gritty and conglomeratic units; strongly silicified and very hard; BCA 50-60°; ground conditions good; **156.0-162.8 m:** strongly hornfelsed and altered sediment (?); white-gray cobbles set in dark green actinolite/shlorite groundmass; some finer grained bedded sedimentary units with bedding sub parallel to core axis in places; ground conditions generally good but with a few broken sections; **162.8-172.2 m:** altered conglomerate (?) as above, interbedded with pale greenish colored conglomerate (?) where ground mass is light green (chromite ?) and pinkish (hematite ?) in places; possibly sericitic where softer; grades back into.... **172.2-199.0 m:** hornfelsed comglomerate (?) with brecciated and cobble sized light gray-white clasts set in dark green actinolite/ chlorite-siliceous groundmass; clasts are largely siliceous sediments or white quartz-silica seggregations up to 10 mm.across; pink coloration in places possibly due to hematite or axinite; mottled appearance due to lighter colored clasts set in dark green fibrous actinolite rich groundmass; | 132.6 | 136.3 | 100 | | | | | | | | | | | | |
| | | | 136.3 | 138.8 | 85 | | | | | | | | | | | |
| | | | 138.5 | 140.7 | 90 | | | | | | | | | | | |
| | | | 140.7 | 142.2 | 95 | | | | | | | | | | | |
| | | | 142.2 | 146.9 | 90 | | | | | | | | | | | |
| | | | 146.9 | 199.0 | 100 | 160.0 | 164.6 | 100 | | | | | | | | |
| | | | | | | 164.6 | 169.0 | 95 | | | | | | | | |
| | | | | | | 169.0 | 173.5 | 100 | | | | | | | | |
| | | | | | | 173.5 | 178.1 | 95 | | | | | | | | |
| | | | | | | 178.1 | 182.6 | 100 | | | | | | | | |
| | | | | | | 182.6 | 187.1 | 90 | | | | | | | | |
| | | | | | | 187.1 | 199.0 | 100 | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 132.6 continued..... | 199.0 | BCA variable 30-70° but generally 40-50°; ground conditions excellent but very hard; | | | | | | | | | | | | | | |
| 199.0 | 211.5 | **DARK ALTERED MAFIC ROCK:** finer grained dark gray-green altered mafic sediment (?) or volcanic; intensely silicified with abundant fibrous dark green groundmass- probably actinolite, becoming lighter green in places; virtually no sulfides; (?? altered mafic-ultramafic rock??) zones of hard whispy brown cherty material common; ground conditions excellent; grades into..... | 199.0 | 211.5 | 100 | 199.0 | 211.5 | 100 | | | | | | | | |
| 211.5 | 213.4 | **ULTRA-MAFIC and CALC-SILICATE ZONE:** several 100-200 mm bands of soft black-dark green serpentite intermixed with light green,hard fine grained calc-silicates (? epidote/diopside ?); aggregates of sulfides common in several of these calc-silicate zones (?pentlandite); appears to grade into unit below, suggestive of a thicker formation of mixed mafic and ultramafic rocks; | 211.5 | 213.4 | 100 | 211.5 | 213.4 | 100 | 211.0 | 212.0 | 0.03 | <0.05 | <0.01 | <0.01 | 0.05 | <0.01 |
| | | | | | | | | | 212.0 | 213.4 | 0.11 | <0.07 | 0.07 | <0.01 | 0.14 | <0.01 |
| | | | | | | | | | 213.4 | 214.4 | 0.04 | <0.05 | <0.01 | <0.01 | 0.06 | <0.01 |
| 213.4 | 250.0 | **ALTERED MAFIC CONGLOMERATES with SEVERAL SKARN ZONES:** gradational with unit above; similar mottled and altered appearance to 132.6-199.0 m.; **213.4-222.0 m:** white and green pebble sized "clasts" set in dark gray matrix; white clasts are strongly silicified material; greenish patches typically hard and fibrous (? epidote); seams and larger zones of softer white fibrous material, possibly talc; several dark gray-black serpentinite patches; unit may be highly altered mafic/ultramafic; minor disseminated sulfides-typically in hard greenish seggregations; several 200-300 mm. zones of hard white siliceous material intergrown with pale green hard fibrous mineral (? epidote); | 213.4 | 250.0 | 100 | 213.4 | 219.0 | 100 | 220.0 | 221.0 | 0.03 | <0.05 | <0.01 | <0.01 | 0.14 | <0.01 |
| | | | | | | 219.0 | 223.5 | 85 | 221.0 | 222.0 | 0.03 | 0.31 | 0.01 | <0.01 | 0.05 | <0.01 |
| | | | | | | 223.5 | 228.0 | 80 | 222.0 | 223.0 | 0.02 | <0.05 | <0.01 | <0.01 | 0.1 | <0.01 |
| | | | | | | 228.0 | 232.7 | 90 | 223.0 | 224.0 | 0.05 | <0.05 | <0.01 | <0.01 | 0.11 | <0.01 |
| | | | | | | 232.7 | 237.2 | 90 | 224.0 | 225.0 | 0.04 | <0.05 | <0.01 | <0.01 | 0.1 | <0.01 |
| | | | | | | 237.2 | 241.6 | 85 | | | | | | | | |
| | | | | | | 241.6 | 246.2 | 100 | | | | | | | | |
| | | | | | | 246.2 | 250.8 | 90 | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 213.4 continued..... | 250.0 | **222.0-224.5 m:** strongly silicified and altered skarn; white quartz flooding pale green, hard matted material (? diopside); minor disseminated sulfides (pyrite, pyrrhotite ?); ground conditions hard and very good;<br>**224.5-250.0 m:** mottled "mafic" conglomerate as 213.4 m., with several narrow light green skarn zones;<br>white and green siliceous clasts or alteration patches set in dark gray-dark green fibrous matted groundmass; many of the clasts appear to be bedded and silicified sedimentary fragments;<br>irregular patches of hard light green silicate (? epidote)<br>narrow greenish skarn zones at:<br>239.0 m: 400 mm;<br>243.9 m: 300 mm;<br>several other minor skarn zones, consisting of fibrous white and light green mottled mineralisation, moderately soft;<br>only very rare specs of sulfides;<br>contacts sharp at 45° CA;<br>ground conditions very good; | | | | | | | | | | | | | | | |
| 250.0 | 252.7 | **WELL BEDDED SEDIMENTS:**<br>interbedded light brown and dark gray fine grained sediments;<br>BCA typically 45°;<br>often brecciated and ground very broken; | 250.0 | 252.7 | 100 | 250.8 | 254.7 | 50 | | | | | | | | |
| 252.7 | 253.5 | **ACTINOLITE-SCHORL-CHALCO-SKARN:**<br>intimately mixed light green fibrous mineral (epidote ?) and dark green actinolite and abundant schorl;<br>chalcopyrite common as blebs and stringers forming lace like appearance around silicates (ie) late stage mineralisation;<br>upper contact broken and difficult to reconstruct; lower contact irregular but approx. 30° CA and discordant to adjacent sediments which also dip 30° but strike is 30° to skarn; | 252.7 | 253.5 | 100 | | | | 252.7 | 253.5 | 0.11 | 0.46 | 0.32 | 0.02 | 0.23 | <0.01 |

861028

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 253.5 | 278.1 | **WELL BEDDED SEDIMENTS:** well bedded light and dark gray sediments ranging from shales (dark gray) to grits (light gray); BCA's: 254 m: 30°; 265 m: 30°; 268 m: 30° 272 m: 45°; 277 m: 60°; 278 m: 45°; In upper section of unit, bedding disrupted and brecciated in places; several "skarn" zones consisting of light green actinolite as matted aggregates, possibly with soft white talc component; **261.1 m:** 300 mm. skarn zone; upper contact 40° CA, and discordant to bedding; lower contact diffuse (? 60°) and strongly discordant; significant sulfide in this unit (chalcopyrite, pentlandite ?); numerous 5-20 mm veins of green actinolite-talc cutting the sediments, generally at high angles to bedding; these veinlets commonly contain aggregates and veinlets of sulfides ( pyrrhotite, pentlandite ?); the sediments contain significant sulfides, either as disseminations and seams parallel to bedding or late stage infilling of fractures and breccia zones; ground moderately competent; contact with unit below is sharp at 40° CA; | 253.5 | 278.1 | 100 | 254.7 | 258.9 | 70 | 258.5 | 259.5 | 0.03 | 0.29 | 0.02 | <0.01 | 0.05 | <0.01 |
| | | | | | | 258.9 | 263.5 | 85 | | | | | | | | |
| | | | | | | 263.5 | 267.8 | 80 | 261.1 | 261.4 | 0.05 | 0.42 | 0.06 | 0.01 | 0.17 | <0.01 |
| | | | | | | 267.8 | 272.5 | 100 | | | | | | | | |
| | | | | | | 272.5 | 277.0 | 95 | 263.5 | 265.0 | <0.01 | 0.5 | 0.02 | <0.01 | <0.01 | <0.01 |
| | | | | | | | | | 265.0 | 266.5 | 0.01 | 1.51 | 0.02 | <0.01 | <0.01 | <0.01 |
| | | | | | | | | | 266.5 | 268.0 | <0.01 | 1.12 | 0.04 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 268.0 | 269.5 | <0.01 | 0.99 | 0.09 | <0.01 | <0.01 | <0.01 |
| | | | | | | | | | 269.5 | 271.0 | <0.01 | 0.83 | 0.02 | <0.01 | <0.01 | <0.01 |
| | | | | | | | | | 271.0 | 272.5 | 0.03 | 1.13 | 0.03 | <0.01 | <0.01 | <0.01 |
| 278.1 | 285.8 | **SKARN or ALTERED MAFIC ROCK:** silica flooded skarned mafic or altered ultra-mafic rock; upper and lower contacts sharp: upper 40° CA lower 40° CA and close to concordant; **278.1-278.4 m:** overall dark gray altered rock with large seggregations of fine grained pale gray calc-silicate (epidote ?) and lesser patches of whitequartz; **278.4-283.2 m:** overall light green rock..... | 278.1 | 285.8 | 100 | 277.0 | 281.6 | 100 | 278.0 | 279.5 | 0.05 | <0.05 | <0.01 | <0.01 | 0.28 | <0.01 |
| | | | | | | 281.6 | 286.1 | 95 | 279.5 | 281.0 | 0.04 | <0.05 | <0.01 | <0.01 | 0.19 | <0.01 |
| | | | | | | | | | 281.0 | 282.5 | 0.03 | <0.05 | <0.01 | <0.01 | 0.16 | <0.01 |
| | | | | | | | | | 282.5 | 284.0 | 0.06 | <0.05 | <0.01 | <0.01 | 0.13 | <0.01 |
| | | | | | | | | | 284.0 | 285.8 | 0.04 | <0.05 | <0.01 | <0.01 | 0.01 | <0.01 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 027**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Cr | % As |
| 278.1 continued..... | 285.8 | (diopside ?), moderately calcareous in part, intensely flooded by white-light gray glasy quartz;<br>minor specs of sulfides;<br>ground conditions excellent;<br>( **petrology at 280.8 m:** diopside-grossularite rock representing a metasomatised "limestone";)<br>**283.2-285.8 m:** overall dark gray altered rock with large seggregations of white quartz, not unlike "conglomerate" described higher in hole;<br>no sulfides;<br>ground conditions excellent;<br>(**petrology at 285.5 m:** thoroughly metasomatised and brecciated ?basalt); | | | | | | | | | | | | | | |
| 285.8 | 287.9 | **SEDIMENTS, well bedded and fine grained:** dark gray fine grained well bedded sediments cut by numerous 5-20 mm discordant veins of actinolite-tremolite;<br>BCA uniform 50-55 °;<br>core moderately broken along bedding planes; discordant altered veins generally carry significant patches and stringers of sulfides (chalcopyrite, pyrrhotite-?? pentlandite);<br><br>**END OF HOLE** | 285.8 | 287.9 | 100 | 286.1 | 287.9 | 80 | 285.8 | 287.0 | 0.03 | 0.17 | 0.03 | <0.01 | 0.02 | <0.01 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**

861030

| | |
|---|---|
| **Commenced:** | 07 December 00 |
| **Completed:** | 16 December 00 |
| **Logged By:** | L.A.Newnham |
| **Drilled By:** | Almac Drilling |

**Purpose of Hole**

To test the South Avebury mineralisation 50 m west of A 014;

**Comments on Completion**

intersected ultramafic sequence from 264.5-327.6 m., (63 m); this complete unit, together with some altered mafic conglomerates in the HW was nickel anomalous, including several zones>1% Ni; the higher grade sections near the HW and the FW are interpreted as equivalent to South Avebury north and south lenses respectively; note high arsenic near central part of intersection;

**Collar Details**

| Grid | Northing | Easting | Elevation | Dip | Bearing |
|---|---|---|---|---|---|
| AMG | 5357455.7 | 354397.6 | 2181.8 | -45 | 178 |

| Length (m) |
|---|
| 343 |

**Hole Size**

| To (m) | Size |
|---|---|
| 23.5 | HQ |
| 343 | NQ |
| | |
| | |
| | |

**Significant Core Loss Zones**

| From | To | %Rec. |
|---|---|---|
| 192.2 | 207.9 | see log |
| 307.3 | 309.6 | 65 |
| | | |
| | | |
| | | |

**Hole Condition on Completion**

decision was made to take a second sample wedged intersection through the mineralised zone using a Hall Rowe wedge; however the van Ruth and wooden plugs could not be advanced passed the poor ground zone around 65 m., and the wedging operation was abandoned; all steel was withdrawn from the hole;

**Summary of Results:**

| Depth | | Recovery | Description | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | % | | Length | Ni % | As % | Cu % | Zn % | Cr ppm | Co ppm | S % |
| 252.0 | 256.0 | 100 | mottled mafic-ultramafic rock with conglomeratic texture | 4.0 | 1.27 | 0.17 | 0.02 | 0.03 | <100 | 438 | 2.53 |
| 266.0 | 298.0 | 100 | ultramafics / serpentinite | 32.0 | 1.07 | 0.22 | 0.02 | 0.01 | 5653 | 274 | 2.32 |
| including | | | | | | | | | | | |
| 278.0 | 289.0 | 100 | South Avebury - north lens | 11.0 | 1.23 | 0.07 | 0.03 | 0.02 | 8847 | 344 | 3.15 |
| 292.0 | 296.0 | 100 | high nicolite zone | 4.0 | 1.43 | **1.31** | 0.02 | 0.01 | 4665 | 277 | 1.52 |
| | | | | | | | | | | | |
| 320.0 | 324.8 | 100 | South Avebury - south lens | 4.8 | 1.55 | <0.01 | <0.01 | <0.01 | 1303 | 334 | 1.73 |

**DOWN HOLE SURVEY DATA**

**COMPANY: Allegiance**
**PROJECT: Avebury Project**
**HOLE NUMBER: A 028**

861031

| Depth | Dip | Bearing | Interval | | Length | Vertical Distance | | Horizontal Distance | | Co-ordinates | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (m) | | (AMG) | From | To | (D) | D.sin dip | R.L. | D. cos dip (HD) | Cumulative HD | N. distance HD. cos brg. | N. co-ordinate | E. distance HD. sin brg. | E. co-ordinate |
| COLLAR | -45 | 178 | | | | | 2181.80 | | 0.00 | | 5,357,455.7 | | 354,397.6 |
| 0 | -45 | 178 | 0 | 15 | 15 | 10.61 | 2171.19 | 10.61 | 10.61 | -10.60 | 5,357,445.1 | 0.37 | 354,398.0 |
| 30 | -45 | 178 | 15 | 45 | 30 | 21.21 | 2149.98 | 21.21 | 31.82 | -21.20 | 5,357,423.9 | 0.74 | 354,398.7 |
| 60 | -45 | 177 | 45 | 75 | 30 | 21.21 | 2128.77 | 21.21 | 53.03 | -21.18 | 5,357,402.7 | 1.11 | 354,399.8 |
| 90 | -45 | 178 | 75 | 120 | 45 | 31.82 | 2096.95 | 31.82 | 84.85 | -31.80 | 5,357,370.9 | 1.11 | 354,400.9 |
| 150 | -45 | 179 | 120 | 175 | 55 | 38.89 | 2058.06 | 38.89 | 123.74 | -38.88 | 5,357,332.0 | 0.68 | 354,401.6 |
| 200 | -45 | 182 | 175 | 226 | 51 | 36.06 | 2021.99 | 36.06 | 159.81 | -36.04 | 5,357,296.0 | -1.26 | 354,400.4 |
| 252 | -45 | 180 | 226 | 277 | 51 | 36.06 | 1985.93 | 36.06 | 195.87 | -36.06 | 5,357,259.9 | 0.00 | 354,400.4 |
| 302 | -45 | 178 | 277 | 320.5 | 43.5 | 30.76 | 1955.17 | 30.76 | 226.63 | -30.74 | 5,357,229.2 | 1.07 | 354,401.4 |
| 339 | -45 | 180 | 320.5 | 341 | 20.5 | 14.50 | 1940.68 | 14.50 | 241.12 | -14.50 | 5,357,214.7 | 0.00 | 354,401.4 |
| 343 | -45 | 180 | 341 | 343 | 2 | 1.41 | 1939.26 | 1.41 | 242.54 | -1.41 | 5,357,213.3 | 0.00 | 354,401.4 |
| 343 | | | | | | | | | | | | | |

**Note:** Down-hole camera surveys are influenced by the adjacent magnetic ultramafics; a comparison of collar theodolite surveys and compass readings indicates the compasses are reading approx. 9° too high; thus the adjustment to AMG is magnetic+4°;

861032

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 028



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 0.0 | 8.2 | **SEDIMENTARY RUBBLE and CLAY:** weathered gray sediments, very broken and rubbly; orange clay patches; high core losses; | 0.0 | 2.0 | 0 | 0.0 | 9.5 | 25 | | | | | | | | |
| | | | 2.0 | 5.5 | 5 | | | | | | | | | | | |
| | | | 5.5 | 7.7 | 10 | | | | | | | | | | | |
| | | | 7.7 | 7.9 | 100 | | | | | | | | | | | |
| | | | 7.9 | 8.2 | 80 | | | | | | | | | | | |
| 8.2 | 35.0 | **HORNFELSED SEDIMENTS:** dark gray-purple fine grained sediments, strongly hornfelsed, fractured and altered; cherty in places; fine grained gritty appearance in part; alteration is dominated by dark green acicular actinolite as large masses and fracture fillings; pervasive patchy brown coloration possibly due to fine phlogopite; BCA's variable and not definite; minor disseminated sulfides; core fresh but fractured; grades into..... | 8.2 | 23.5 | 100 | 9.5 | 12.4 | 50 | | | | | | | | |
| | | | 23.5 | 35.0 | 100 | 12.4 | 15.4 | 60 | | | | | | | | |
| | | | | | | 15.4 | 18.4 | 70 | | | | | | | | |
| | | | | | | 18.4 | 21.5 | 50 | | | | | | | | |
| | | | | | | 21.5 | 23.5 | 60 | | | | | | | | |
| | | | | | | NQ core | | | | | | | | | | |
| | | | | | | 23.5 | 27.5 | 40 | | | | | | | | |
| | | | | | | 27.5 | 31.5 | 50 | | | | | | | | |
| | | | | | | 31.5 | 35.5 | 40 | | | | | | | | |
| 35.0 | 55.3 | **ALTERED SEDIMENTS, brecciated and disrupted:** similar to unit above but hornfelsed sediments have been extensively disrupted and brecciated, and strongly altered with pervasive quartz and quartz-actinolite infilling fractures and replacing sedimentary clasts and fragments; pervasive brown coloration suggesting fine phlogopite; bedding very eratic; minor sulfides, including some chalcopyrite (eg) 53.0 m., accompanies quartz and quartz-actinolite alteration; core quite broken and brittle; grades into..... | 35.0 | 55.7 | 100 | 35.5 | 39.9 | 60 | | | | | | | | |
| | | | | | | 39.9 | 44.4 | 60 | | | | | | | | |
| | | | | | | 44.4 | 48.4 | 60 | | | | | | | | |
| | | | | | | 48.4 | 52.9 | 65 | | | | | | | | |
| | | | | | | 52.9 | 56.8 | 40 | | | | | | | | |
| 55.3 | 175.0 | **HORNFELSED and ALTERED SEDIMENTS:** similar to unit above but less disrupted and brecciated; dark gray and brown (phlogopite) medium grained sediments; strongly hornfelsed and extensive silica-actinolite alteration; | 55.7 | 175.0 | 100 | 56.8 | 60.5 | 50 | | | | | | | | |
| | | | | | | 60.5 | 64.5 | 65 | | | | | | | | |
| | | | | | | 64.5 | 68.5 | 45 | | | | | | | | |
| | | | | | | 68.5 | 72.3 | 40 | | | | | | | | |
| | | | | | | 72.3 | 76.2 | 60 | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 55.3 | 175.0 | actinolite occurs as acicular clots, irregular | | | | 76.2 | 80.4 | 60 | | | | | | | | |
| continued..... | | masses and seams, with or without quartz; | | | | 80.4 | 84.6 | 65 | | | | | | | | |
| | | BCA in 40-60° range but generally 50-55°; | | | | 84.6 | 88.8 | 75 | | | | | | | | |
| | | BCA 83.5 m: 50°; | | | | 88.8 | 93.1 | 80 | | | | | | | | |
| | | 85.0 m: 60°; | | | | 93.1 | 96.8 | 60 | | | | | | | | |
| | | trace of disseminated sulfides- essentially nil; | | | | 96.8 | 101.1 | 85 | | | | | | | | |
| | | **above 88 m:** core very broken mainly along | | | | 101.1 | 105.3 | 80 | | | | | | | | |
| | | several joint sets including one sub-parallel | | | | 105.3 | 109.4 | 70 | | | | | | | | |
| | | to core axis; | | | | 109.4 | 113.7 | 65 | | | | | | | | |
| | | **below 88.0 m:** becoming more uniformly dark | | | | 113.7 | 118.0 | 75 | | | | | | | | |
| | | gray, medium grained, possibly altered mafic | | | | 118.0 | 122.2 | 70 | | | | | | | | |
| | | sediment or volcaniclastic; several medium | | | | 122.2 | 126.2 | 65 | | | | | | | | |
| | | grained units interbedded with finer grained | | | | 126.2 | 130.3 | 70 | | | | | | | | |
| | | altered and hornfelsed dark gray-purple | | | | 130.3 | 134.5 | 65 | | | | | | | | |
| | | sediments; several bands of lighter colored | | | | 134.5 | 138.3 | 50 | | | | | | | | |
| | | gritty material, possibly volcaniclastic | | | | 138.3 | 142.3 | 45 | | | | | | | | |
| | | eg.150 m; | | | | 142.3 | 146.5 | 75 | | | | | | | | |
| | | BCA generally 55-60°; | | | | 146.5 | 150.6 | 70 | | | | | | | | |
| | | 130 m: 60-65°; | | | | 150.6 | 154.8 | 50 | | | | | | | | |
| | | 138 m: 70°; | | | | 154.8 | 158.7 | 70 | | | | | | | | |
| | | towards base of unit, BCA gradually | | | | 158.7 | 162.6 | 60 | | | | | | | | |
| | | increasing 75-80°; | | | | 162.6 | 167.1 | 80 | | | | | | | | |
| | | dark gray-green fibrous groundmass in places | | | | 167.1 | 171.6 | 70 | | | | | | | | |
| | | cut by minor lighter green actinolite-quartz, | | | | 171.6 | 175.7 | 50 | | | | | | | | |
| | | often accompanied by minor sulfides; | | | | | | | | | | | | | | |
| | | several narrow quartz-actinolite veins | | | | | | | | | | | | | | |
| | | carrying chalcopyrite; | | | | | | | | | | | | | | |
| | | ground conditions improved in this unit; less | | | | | | | | | | | | | | |
| | | broken with fractures both along joint planes | | | | | | | | | | | | | | |
| | | (including one 30° CA) and along bedding | | | | | | | | | | | | | | |
| | | planes; | | | | | | | | | | | | | | |
| | | overall, core moderately competent and hard | | | | | | | | | | | | | | |
| | | but fracturing common along several joint | | | | | | | | | | | | | | |
| | | sets with atleast one set sub-parallel to CA | | | | 175.7 | 180.3 | 85 | | | | | | | | |
| | | resulting in longitudinal fractures in core; | | | | 180.3 | 184.7 | 75 | | | | | | | | |
| | | | | | | 184.7 | 189.0 | 65 | | | | | | | | |
| 175.0 | 214.5 | **SEDIMENTS, silicified and altered, minor** | 175.0 | 185.1 | 100 | 189.0 | 193.7 | 50 | | | | | | | | |
| | | **"skarn" zones:** | 185.1 | 187.0 | 95 | 193.7 | 197.4 | 40 | | | | | | | | |
| | | light-dark gray, brown and green cherty | 187.0 | 190.0 | 100 | 197.4 | 201.6 | 55 | | | | | | | | |
| | | sediments mixed with strongly altered mafic | 190.0 | 192.2 | 90 | 201.6 | 205.5 | 25 | | | | | | | | |
| | | sediments; | 192.2 | 193.2 | 70 | 205.5 | 209.8 | 10 | | | | | | | | |
| | | pervasive silicification, phlogopite and | 193.2 | 193.7 | 20 | 209.8 | 213.5 | 25 | | | | | | | | |
| | | actinolite/diopside alteration; | | | | | | | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | Cu | Co | Cr | % As |
| 175.0 continued..... | 214.5 | significant late stage pyrite and pyrrhotite mineralisation as veinlets and seggregations; BCA's generally 70-80°; core moderately competent near top but becoming strongly broken towards base; **175.0-181.9 m:** light-medium gray, fine grained bedded cherty, silica flooded rocks; BCA irregularbut generally 60°; widespread greenish coloration due to fine grained actinolite ?; several purplish axinite sections; large irregular masses schorl common; minor-common sulfides (pyrite-pyrrhotite) as thin late stage veinlets and small aggregates; chalcopyrite and pyrite associated with schorl rich units; sulfides increase towards base of unit; ground hard and moderately competent; **181.9-183.5 m:** schorl-actinolite-diopside-axinite unit; possibly skarned mafic rock; significant sulfide (pyrite, pyrrhotite) as disseminationsand stringers especially in schorl rich zones; sharp FW and HW contacts 65° CA; **183.5-185.7 m:** brown and dark gray medium grained phlogopite rocks; fractures filled with quartz and actinolite; BCA 70°; talc on joint surfaces; **185.7-187.9 m:** lighter gray-green strongly altered and silicified unit with sections of massive schorl and minor axinite; sulfides common as veinlets and seggregations associated with schorl and actinolite; **187.9-195.0 m:** dark gray-brown fine grained silicified sediments containing abundant phlogopite; minor sulfides infilling fractures; unit is extremely broken and fractured between 192.0-194.0 m., being present only as rubble and with some core loss; however there is no evidence of brecciation or faulting; | 193.7 | 194.0 | 70 | | | | | | | | | ppm | ppm | ppm | |
| | | | 194.0 | 202.6 | 100 | | | | | | | | | | | | | |
| | | | 202.6 | 203.7 | 90 | | | | | | | | | | | | | |
| | | | 203.7 | 204.9 | 90 | | | | | | | | | | | | | |
| | | | 204.9 | 205.1 | 80 | | | | | | | | | | | | | |
| | | | 205.1 | 205.4 | 70 | | | | 175.0 | 176.0 | <0.01 | <0.05 | 70 | 48 | 120 | <0.01 |
| | | | 205.4 | 205.9 | 60 | | | | | | | | | | | |
| | | | 205.9 | 206.2 | 30 | | | | 178.0 | 179.0 | 0.02 | 0.54 | 560 | 245 | <100 | 0.04 |
| | | | 206.2 | 206.5 | 80 | | | | 179.0 | 180.0 | 0.01 | 0.87 | 530 | 130 | 130 | 0.01 |
| | | | 206.5 | 207.1 | 70 | | | | 180.0 | 181.0 | <0.01 | 1.36 | 345 | 82 | <100 | <0.01 |
| | | | 207.1 | 207.9 | 30 | | | | 181.0 | 181.9 | <0.01 | 1.46 | 695 | 60 | <100 | <0.01 |
| | | | 207.9 | 214.5 | 100 | | | | | | | | | | | |
| | | | | | | | | | 181.9 | 183.5 | <0.01 | 0.7 | 140 | 62 | 110 | <0.01 |
| | | | | | | | | | 185.7 | 187.0 | 0.01 | 0.48 | 145 | 175 | <100 | 0.59 |
| | | | | | | | | | 187.0 | 188.0 | <0.01 | 0.07 | 30 | 66 | 120 | 0.02 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 175.0 | 241.5 | **195.0-203.7 m:** dark gray-dark brown fine grained well bedded and strongly altered sediment, grading down into darker gray-dark green medium grained altered mafic (?) sediments;<br>silica-axinite zone 198.1-198.8 m;<br>BCA 70°;<br>thin quartz veining common and some talc-serpentinite development along fractures;<br>minor carbonate veining;<br>minor sulfides (? pyrite) developed along bedding plane fractures and thin late stage veinlets, especially in top of unit;<br>**203.7-214.5 m:** light gray cherty silicified sediments with abundant masses and seams of quartz-schorl and ocassional black serpentinite development;<br>pyrite and pyrrhotite and (? pentlandite) common, both filling fractures and as disseminations and aggregates in schorl-quartz zones;<br>BCA indistinct, but whispy texture in cherts generally 70° CA;<br>unit is very broken; | | | | | | | | 195.0 | 196.3 | <0.01 | 1.00 | 0.02 | <0.01 | <0.01 | <0.01 |
| | | | | | | | | | 203.7 | 205.0 | <0.01 | 0.93 | 0.02 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 205.0 | 206.0 | <0.01 | 0.21 | <0.01 | <0.01 | 0.04 | <0.01 |
| | | | | | | | | | 206.0 | 207.0 | <0.01 | 0.53 | 0.01 | <0.01 | 0.07 | <0.01 |
| | | | | | | | | | 207.0 | 208.0 | <0.01 | 0.81 | 0.02 | <0.01 | 0.05 | <0.01 |
| | | | | | | | | | 208.0 | 209.0 | <0.01 | 0.18 | <0.01 | <0.01 | 0.04 | <0.01 |
| | | | | | | | | | 209.0 | 210.0 | <0.01 | 0.94 | 0.01 | <0.01 | 0.14 | <0.01 |
| | | | | | | | | | 210.0 | 211.0 | <0.01 | 0.56 | 0.02 | <0.01 | 0.05 | <0.01 |
| | | | | | | | | | 211.0 | 212.0 | 0.01 | 1.67 | 0.04 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 212.0 | 213.0 | 0.01 | 1.72 | 0.02 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 213.0 | 214.5 | 0.01 | 1.98 | 0.03 | <0.01 | 0.02 | 0.01 |
| 214.5 | 264.5 | **ALTERED SEDIMENTS with narrow bands ultramafic; pyrrhotite common in places:**<br>strongly altered light gray sediments with abundant black schorl and axinite;<br>several zones of soft black-dark green ultramafic;<br>sulfides common in places, dominantly pyrrhotite; minor (? pentlandite);<br>**214.5-217.3 m:** intensely altered light gray siliceous sediments with several 100-150 mm. dark green-black serpentinite bands;<br>minor late stage veins and seggregations of pyrite-pyrrhotite-(? pentlandite), generally associated with ultramafic sections;<br>core broken, particularly serpentinite bands;<br>**217.3-239.0 m:** altered light gray and dark gray sediments; abundant schorl and axinite;<br>219.0 m: 1000 mm dark gray fine grained ..... | 214.5 | 215.2 | 100 | 213.5 | 217.6 | 30 | 219.0 | 220.0 | 0.01 | 2.10 | 0.03 | <0.01 | <0.01 | <0.01 |
| | | | 215.2 | 216.4 | 85 | 217.6 | 221.8 | 70 | | | | | | | | |
| | | | 216.4 | 265.0 | 100 | 221.8 | 244.6 | 100 | 237.0 | 238.0 | 0.03 | 0.50 | 0.01 | <0.01 | 0.11 | <0.01 |
| | | | | | | 244.6 | 248.7 | 70 | 238.0 | 239.0 | 0.02 | 0.86 | 0.03 | 0.04 | 0.03 | 0.04 |
| | | | | | | 248.7 | 253.2 | 85 | 239.0 | 240.0 | <0.01 | 0.28 | 0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | 253.2 | 257.8 | 80 | | | | | | | | |
| | | | | | | 257.8 | 262.2 | 90 | | | | | | | | |
| | | | | | | 262.2 | 266.4 | 55 | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 214.5 continued | 264.5 | ...sedimentary bed containing abundant sulfide as fracture fillings and late stage seggregations;<br>221.2 m: 100 mm breccia zone, dark gray clasts set in white carbonate matrix;<br>below 221.3 m: rock intensely altered with large masses dark schorl separated by white-pink tremolite-axinite alteration, often associated with disseminations and aggregates of pyrite-pyrrhotite;<br>several zones of dark green, medium grained actinolite rich rock, possibly an altered mafic sequence;<br>vague banding 80° CA;<br>schorl masses often accompanied by lace like development of pyrrhotite (eg.) 237.0-239.0 m;<br>ground conditions generally excellent;<br>**239.0-250.5 m:** bedded, strongly silicified light gray-pink cherty sediments with vague brecciated fabric in places, interbedded with dark gray medium grained altered mafic rocks;<br>sulfides in cherty sediments sparse;<br>1-2% sulfides in mafic sections, generally pyrrhotite, (?) arsenopyrite or pink cobaltite(?) as disseminations and aggregates;<br>**250.5-258.0 m:** dark green-black-mottled gray mafic or ultramafic rock, with remnant conglomerate texture in places; below 256 m., rock has a definite conglomeratic texture with large siliceous cobbles separated by dark mafic-ultramafic material;<br>patches of schorl in more sedimentary sections;<br>3-5% sulfides (pyrrhotite and pentlandite?) as large irregular masses, massive veinlets and stringers;<br>ground conditions moderately good but fracture surfaces often coated with serpentinite and resultant rock strength probably low;<br>**258.0-262.0 m:** light gray silicates and abundant dark gray-black schorl resulting in mottled or conglomeratic appearance in parts; | | | | | | | | 245.0 | 246.0 | 0.01 | 1.41 | 0.02 | 0.02 | 0.01 | <0.01 |
| | | | | | | | | | 246.0 | 247.0 | 0.06 | 0.53 | 0.01 | 0.06 | 0.02 | 0.08 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 214.5 continued..... | 264.5 | 3-5% sulfides (pyrrhotite- pentlandite ?); more common within schorl dominated areas; ground conditions very good; grades into unit below; **262.0-264.5 m:** light gray-white hard cherty silicate rockswith ocassional schorl patches and conglomeratic texture in places; 1-2% sulfides as thin veinlets and irregular patches; some longitudinal fracturing of core; | | | | | | | 250.5 | 252.0 | 0.67 | 1.43 | <0.01 | 0.03 | 0.02 | <0.01 |
| | | | | | | | | | 252.0 | 253.0 | 0.95 | 2.05 | 0.01 | 0.03 | 0.02 | <0.01 |
| | | | | | | | | | 253.0 | 254.0 | 1.57 | 3.35 | 0.02 | 0.04 | 0.01 | <0.01 |
| | | | | | | | | | 254.0 | 255.0 | 0.46 | 1.22 | <0.01 | 0.02 | 0.07 | <0.01 |
| | | | | | | | | | 255.0 | 256.0 | 2.10 | 3.50 | 0.02 | 0.09 | 0.01 | 0.68 |
| | | | | | | | | | 256.0 | 257.0 | 0.38 | 1.17 | <0.01 | 0.01 | 0.02 | <0.01 |
| | | | | | | | | | 257.0 | 258.0 | 0.27 | 0.50 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 258.0 | 259.0 | 0.14 | 0.77 | 0.02 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 259.0 | 260.0 | 0.09 | 0.33 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | | | | 260.0 | 261.0 | 0.06 | 0.66 | <0.01 | <0.01 | 0.01 | <0.01 |
| 264.5 | 327.6 | **ULTRAMAFIC SEQUENCE, abundant sulfides:** contact with unit above gradational; dark green-black massive serpentinite mixed with zones of light green siliceous altered rocks; pentlandite common-abundant as late stage veins and irregular masses, and lace like stringers; ground conditions moderately good; some longitudinal fracturing of core and greasy serpentinite development on joints; **264.5-274.0 m:** mixed dark green-black serpentinite, light green siliceous material and pale green (epidote?) rich altered silicates; 3-5% sulfides throughout, but most abundant in darker serpentinite zones, often accompanied by magnetite; gradational into ..... **274.0-301.0 m:** dark green-black serpentinite with some intervals of light gray siliceous altered rocks; 2-4% pentlandite pervasive as irregular aggregates, stringers and veinlets; oftenaccompanied by either magnetite or pyrrhotite; below 276.5 m: narrow veinlets of fibrous amphibole and green talc; below 297.8 m: becomes light gray-green serpentinite; lighter areas are hard but contain an acicular mineral (diopside?); | 265.0 | 297.9 | 100 | 266.4 | 270.9 | 85 | 261.0 | 262.0 | 0.23 | 0.77 | <0.01 | <0.01 | 0.01 | 0.05 |
| | | | 297.9 | 301.0 | 95 | 270.9 | 275.3 | 80 | 262.0 | 263.0 | 0.08 | 0.58 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | 301.0 | 302.0 | 100 | 275.3 | 279.8 | 85 | 263.0 | 264.0 | 0.05 | 0.23 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | 302.0 | 303.9 | 90 | 279.8 | 284.0 | 75 | 264.0 | 265.0 | 0.49 | 0.57 | <0.01 | 0.01 | 0.02 | 0.14 |
| | | | 303.9 | 305.8 | 95 | 284.0 | 288.7 | 95 | 265.0 | 266.0 | 0.65 | 1.44 | <0.01 | 0.01 | 0.02 | <0.01 |
| | | | 305.8 | 307.3 | 85 | 288.7 | 293.2 | 90 | 266.0 | 267.0 | 1.01 | 1.84 | <0.01 | 0.02 | 0.01 | 0.02 |
| | | | 307.3 | 309.6 | 65 | 293.2 | 297.6 | 65 | 267.0 | 268.0 | 0.60 | 1.13 | <0.01 | 0.02 | 0.02 | <0.01 |
| | | | 309.6 | 327.6 | 100 | 297.6 | 301.9 | 60 | 268.0 | 269.0 | 2.90 | 5.20 | 0.02 | 0.06 | 0.01 | 0.02 |
| | | | | | | 301.9 | 306.7 | 45 | 269.0 | 270.0 | 1.03 | 2.50 | 0.02 | 0.02 | <0.01 | <0.01 |
| | | | | | | 306.7 | 311.4 | 50 | 270.0 | 271.0 | 0.36 | 1.05 | <0.01 | <0.01 | 0.01 | <0.01 |
| | | | | | | 311.4 | 315.4 | 50 | 271.0 | 272.0 | 0.27 | 0.79 | <0.01 | <0.01 | <0.01 | <0.01 |
| | | | | | | 315.4 | 320.1 | 65 | 272.0 | 273.0 | 0.76 | 1.58 | <0.01 | 0.02 | 0.02 | <0.01 |
| | | | | | | 320.1 | 324.6 | 75 | 273.0 | 274.0 | 0.83 | 1.56 | <0.01 | 0.02 | 0.01 | <0.01 |
| | | | | | | 324.6 | 329.0 | 90 | 274.0 | 275.0 | 1.37 | 2.60 | 0.02 | 0.03 | <0.01 | 0.03 |
| | | | | | | | | | 275.0 | 276.0 | 0.88 | 1.79 | 0.02 | 0.03 | <0.01 | <0.01 |
| | | | | | | | | | 276.0 | 277.0 | 0.64 | 1.50 | 0.01 | 0.02 | <0.01 | 0.03 |
| | | | | | | | | | 277.0 | 278.0 | 0.83 | 2.25 | 0.02 | 0.02 | 0.01 | 0.04 |
| | | | | | | | | | 278.0 | 279.0 | 1.50 | 2.75 | 0.02 | 0.03 | 0.01 | 0.04 |
| | | | | | | | | | 279.0 | 280.0 | 1.16 | 2.25 | 0.02 | 0.03 | 0.03 | 0.03 |
| | | | | | | | | | 280.0 | 281.0 | 1.59 | 3.50 | 0.02 | 0.03 | 0.02 | 0.02 |
| | | | | | | | | | 281.0 | 282.5 | 1.61 | 3.50 | 0.02 | 0.03 | 0.02 | <0.01 |
| | | | | | | | | | 282.5 | 283.8 | 0.20 | 0.20 | <0.01 | <0.01 | 0.02 | <0.01 |
| | | | | | | | | | 283.8 | 285.0 | 1.35 | 4.15 | 0.04 | 0.04 | 0.04 | 0.04 |
| | | | | | | | | | 285.0 | 286.0 | 1.44 | 4.45 | 0.05 | 0.05 | 0.02 | 0.13 |
| | | | | | | | | | 286.0 | 287.0 | 1.17 | 3.70 | 0.04 | 0.04 | 0.02 | 0.08 |
| | | | | | | | | | 287.0 | 288.0 | 1.25 | 3.80 | 0.04 | 0.04 | 0.01 | 0.26 |
| | | | | | | | | | 288.0 | 289.0 | 1.12 | 3.75 | 0.04 | 0.04 | 0.02 | 0.10 |
| | | | | | | | | | 289.0 | 290.0 | 0.68 | 2.20 | 0.02 | 0.02 | 0.01 | 0.07 |
| | | | | | | | | | 290.0 | 291.0 | 0.61 | 2.35 | 0.03 | 0.02 | 0.02 | <0.01 |
| | | | | | | | | | 291.0 | 292.0 | 0.48 | 2.00 | 0.02 | 0.02 | 0.01 | <0.01 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 028**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 264.5 | 327.6 | light green-white talcose material developed near base of interval which grades into interval below;<br>ground conditions moderately good but a number of crushed puggy zones and fibrous veinlets; joint surfaces often talcy and overall rock strength probably low;<br>**301.0-321.8 m:** massive black serpentinite; 301.0-308.0 m: core is cut by narrow veins of talc and white fibrous material resulting in very weak and broken core accompanied by minor core losses;<br>below 308 m: only minor widely spaced fibrous veins but core still broken and weak; 0.5-1% disseminated pentlandite accompanied by abundant magnetite; several aggregates of sulfides appear to be mixture of pentlandite and another lighter colored sulfide;<br>overall, this unit lower grade than 265.0-301.0 m;<br>**321.8-323.5 m:** siliceous and altered mafic-ultramafic interval; mixed light gray and light green rocks with patches of dark green-black ultramafic; thin veinlets of talcose material; 1-2% pentlandite as disseminations, aggregates and large patches;<br>core hard and competent;<br>**323.5-324.8 m:** dark green-black serpentite carrying 3-5% pentlandite as irregular aggregates and veinlets;<br>core moderately competent;<br>**324.8-327.6 m:** light gray-light green altered and siliceous ultramafic-mafic rock with 1-2% disseminated sulfides;<br>evidence of water movement at 327.3 m;<br>strong joint set at 45° CA;<br>somewhat gradational contact with interval below; | | | | | | | | 292.0 | 293.0 | 1.73 | 1.70 | 0.02 | 0.03 | 0.72 | 1.67 |
| | | | | | | | | | 293.0 | 294.0 | 1.55 | 0.74 | <0.01 | 0.02 | 0.36 | 1.76 |
| | | | | | | | | | 294.0 | 295.0 | 0.98 | 1.30 | 0.01 | 0.02 | 0.41 | 0.81 |
| | | | | | | | | | 295.0 | 296.0 | 1.46 | 2.35 | 0.02 | 0.03 | 0.37 | 1.02 |
| | | | | | | | | | 296.0 | 297.0 | 0.25 | 0.84 | <0.01 | 0.01 | 0.22 | 0.07 |
| | | | | | | | | | 297.0 | 298.0 | 1.45 | 2.25 | 0.02 | 0.04 | 0.31 | 0.84 |
| | | | | | | | | | 298.0 | 299.0 | 0.70 | 1.49 | 0.01 | 0.02 | 0.67 | 0.26 |
| | | | | | | | | | 299.0 | 300.0 | 0.73 | 1.34 | <0.01 | 0.02 | 0.51 | 0.22 |
| | | | | | | | | | 300.0 | 301.0 | 0.58 | 1.32 | <0.01 | 0.02 | 0.08 | 0.04 |
| | | | | | | | | | 301.0 | 302.0 | 0.12 | 0.31 | <0.01 | <0.01 | 0.10 | 0.01 |
| | | | | | | | | | 302.0 | 304.0 | 0.49 | 1.14 | <0.01 | 0.02 | <0.01 | 0.07 |
| | | | | | | | | | 304.0 | 306.0 | 0.99 | 1.70 | <0.01 | 0.02 | <0.01 | 0.30 |
| | | | | | | | | | 306.0 | 308.0 | 0.69 | 0.81 | <0.01 | 0.02 | 0.01 | 0.25 |
| | | | | | | | | | 308.0 | 310.0 | 0.48 | 0.48 | <0.01 | 0.01 | 0.01 | 0.11 |
| | | | | | | | | | 310.0 | 312.0 | 0.43 | 0.42 | <0.01 | 0.01 | 0.01 | 0.22 |
| | | | | | | | | | 312.0 | 314.0 | 0.21 | 0.28 | <0.01 | <0.01 | <0.01 | 0.07 |
| | | | | | | | | | 314.0 | 316.0 | 0.31 | 0.36 | <0.01 | 0.01 | <0.01 | 0.13 |
| | | | | | | | | | 316.0 | 318.0 | 0.41 | 0.56 | <0.01 | 0.01 | 0.01 | 0.02 |
| | | | | | | | | | 318.0 | 320.0 | 0.74 | 0.88 | <0.01 | 0.02 | 0.01 | <0.01 |
| | | | | | | | | | 320.0 | 321.8 | 1.01 | 1.14 | <0.01 | 0.02 | 0.02 | <0.01 |
| | | | | | | | | | 321.8 | 323.5 | 2.25 | 2.25 | <0.01 | 0.04 | <0.01 | <0.01 |
| | | | | | | | | | 323.5 | 324.8 | 1.39 | 1.89 | <0.01 | 0.03 | <0.01 | <0.01 |
| | | | | | | | | | 324.8 | 326.3 | 0.56 | 1.52 | 0.01 | 0.01 | 0.01 | 0.07 |
| | | | | | | | | | 326.3 | 327.6 | 0.21 | 0.67 | <0.01 | <0.01 | 0.01 | 0.02 |
| 327.6 | 343.0 | **FINE GRAINED ALTERED SEDIMENTS:**<br>brown-fawn-light gray fine grained sediments, silicified and containing phlogopite in places; | 327.6 | 343.0 | 100 | 329.0 | 333.5 | 90 | | | | | | | | |
| | | | | | | 333.5 | 337.8 | 85 | | | | | | | | |
| | | | | | | 337.8 | 343.0 | 90 | | | | | | | | |

861039

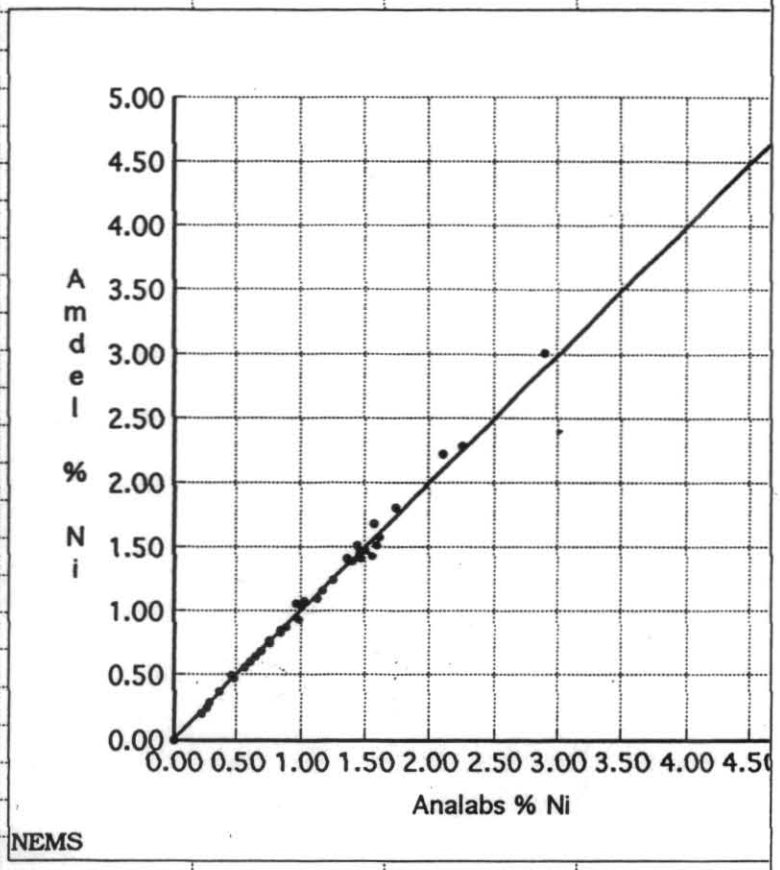
**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 028



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 327.6 | 343.0 | minor bands dark gray-green mafic rocks;<br>**327.6-328.8 m:** silicified green medium grained mafic rock; trace sulfides; ground conditions good;<br>**328.8-336.0 m:** well bedded light -dark brown fine grained sediments, minor gritty beds in places; silica flooding and phlogopite common;<br>BCA variable 30-50°; generally 45°;<br>**336.0-340.4 m:** silicified mafic conglomerate; irregular white quartz clasts set in dark gray-green medium grained silicified groundmass; ground conditiond good but hard;<br>**340.4-343.0 m:** well bedded fine grained light-dark brown and white sediments; intensely silicified and broken towards base of interval;<br>BCA 45°;<br>most fracturing parallel to bedding;<br><br>**END OF HOLE** | | | | | | | | | | | | | | | |

8610

| Hole No | From | To | Analabs | Amdel |
|---|---|---|---|---|
| A028 | 252.0 | 253.0 | 0.95 | 1.07 |
| | 253.0 | 254.0 | 1.57 | 1.68 |
| | 254.0 | 255.0 | 0.46 | 0.51 |
| | 255.0 | 256.0 | 2.10 | 2.22 |
| | 266.0 | 267.0 | 1.01 | 1.04 |
| | 267.0 | 268.0 | 0.60 | 0.61 |
| | 268.0 | 269.0 | 2.90 | 3.02 |
| | 269.0 | 270.0 | 1.03 | 1.08 |
| | 270.0 | 271.0 | 0.36 | 0.37 |
| | 271.0 | 272.0 | 0.28 | 0.29 |
| | 272.0 | 273.0 | 0.76 | 0.76 |
| | 273.0 | 274.0 | 0.84 | 0.85 |
| | 274.0 | 275.0 | 1.37 | 1.39 |
| | 275.0 | 276.0 | 0.88 | 0.88 |
| | 276.0 | 277.0 | 0.64 | 0.65 |
| | 277.0 | 278.0 | 0.83 | 0.84 |
| | 278.0 | 279.0 | 1.50 | 1.47 |
| | 279.0 | 280.0 | 1.16 | 1.16 |
| | 280.0 | 281.0 | 1.59 | 1.52 |
| | 281.0 | 282.5 | 1.61 | 1.58 |
| | 282.5 | 283.8 | 0.21 | 0.21 |
| | 283.8 | 285.0 | 1.35 | 1.41 |
| | 285.0 | 286.0 | 1.44 | 1.52 |
| | 286.0 | 287.0 | 1.17 | 1.16 |
| | 287.0 | 288.0 | 1.25 | 1.24 |
| | 288.0 | 289.0 | 1.12 | 1.11 |
| | 289.0 | 290.0 | 0.68 | 0.68 |
| | 290.0 | 291.0 | 0.61 | 0.60 |
| | 291.0 | 292.0 | 0.48 | 0.48 |
| | 292.0 | 293.0 | 1.73 | 1.81 |
| | 293.0 | 294.0 | 1.55 | 1.44 |
| | 294.0 | 295.0 | 0.98 | 0.94 |
| | 295.0 | 296.0 | 1.46 | 1.42 |
| | 296.0 | 297.0 | 0.25 | 0.26 |
| | 297.0 | 298.0 | 1.45 | 1.48 |
| | 318.0 | 320.0 | 0.74 | 0.77 |
| | 320.0 | 321.8 | 1.01 | 1.06 |
| | 321.8 | 323.5 | 2.25 | 2.29 |
| | 323.5 | 324.8 | 1.39 | 1.39 |
| | 324.8 | 326.3 | 0.56 | 0.56 |




**AVEBURY PROJECT**
**DDH A-028**
**COMPARATIVE ASSAYS**

5 cm

861041

| | | | |
|---|---|---|---|
| **hole no** | A029 | | |
| **final depth** | 254.0 | m | |
| **east** | 354,395.28 | AMG | |
| **north** | 5,357,350.02 | AMG | |
| **rl** | 2,180.00 | m | |
| **HQ** | 0.0 to 55.7m | | |
| **NQ** | 55.7m to 254.0m | | |
| **commenced** | 2-Jan-01 | | |
| **completed** | 14-Jan-01 | | |
| **logged by** | Mick McKeown | | |
| **drilled by** | Almac Pty Ltd | | |
| **analyses by** | Analabs Pty Ltd | | |

**downhole surveys**

| at | mag brg | AMG brg as read | AMG brg corrected | AMG brg as used | dip | comments |
|---|---|---|---|---|---|---|
| 0 | - | 178.28 | 178 | 178 | -45 | Collar bearing and dip are as provided by surveyor. |
| 25 | 171 | 184 | 178 | 178 | -45 | All downhole bearings and dips were surveyed using a downhole camera. |
| 50 | 174 | 187 | 181 | 181 | -45 | Down-hole bearings as read have been corrected for local magnetic error by subtracting |
| 100 | 174 | 187 | 181 | 181 | -45 | 6 degrees (determined by comparing the true collar bearing as determined by theodolite |
| 150 | 181 | 194 | 188 | 182 | -44.5 | survey with the first down-hole camera survey). |
| 200 | 176 | 189 | 183 | 183 | -41.5 | Obviously erratic down-hole bearings have been replaced by interpolation or |
| 254 | 175 | 188 | 182 | 182 | -39 | extrapolation to fit the general trend of bearing changes in the hole. |
| | | | | | | For more information regarding the protocol used to correct the bearings, refer to the |
| | | | | | | memo "Avebury project - down-hole surveys" (McKeown, 12 October 2000). |

**COMMENTS**

Note that 2000m has been added to the actual RL.

**SIGNIFICANT INTERSECTIONS**

| formation | comment | from m | to m | length m | Ni % | S % | Co ppm | Cu ppm | Pb ppm | Zn ppm | As ppm | Au ppb | Ag ppb | Pt ppb | Pd ppb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

861042

| A029 | at | bearing as used AMG | dip | from m | to m | down-hole interval | horizontal interval m | vertical interval m | east shift | north shift | easting AMG m | northing AMG m | RL m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLE PATH | | | | | | | | | | | | | |
| | | | | | collar | | | | | | 354,395.3 | 5,357,350.0 | 2,180.0 |
| | 0.0 | 178 | -45.0 | 0.0 | 12.5 | 12.5 | 8.8 | -8.8 | 0.3 | -8.8 | 354,395.6 | 5,357,341.2 | 2,171.2 |
| | 25.0 | 178 | -45.0 | 12.5 | 37.5 | 25.0 | 17.7 | -17.7 | 0.6 | -17.7 | 354,396.2 | 5,357,323.5 | 2,153.5 |
| | 50.0 | 181 | -45.0 | 37.5 | 75.0 | 37.5 | 26.5 | -26.5 | -0.5 | -26.5 | 354,395.7 | 5,357,297.0 | 2,127.0 |
| | 100.0 | 181 | -45.0 | 75.0 | 125.0 | 50.0 | 35.4 | -35.4 | -0.6 | -35.3 | 354,395.1 | 5,357,261.7 | 2,091.6 |
| | 150.0 | 182 | -44.5 | 125.0 | 175.0 | 50.0 | 35.7 | -35.0 | -1.2 | -35.6 | 354,393.9 | 5,357,226.0 | 2,056.6 |
| | 200.0 | 183 | -41.5 | 175.0 | 227.0 | 52.0 | 38.9 | -34.5 | -2.0 | -38.9 | 354,391.8 | 5,357,187.1 | 2,022.1 |
| | 254.0 | 182 | -39.0 | 227.0 | 254.0 | 27.0 | 21.0 | -17.0 | -0.7 | -21.0 | 354,391.1 | 5,357,166.2 | 2,005.1 |
| check sums and differences | | | | | | 254.0 | 184.0 | -174.9 | -4.2 | -183.9 | -4.2 | -183.9 | -174.9 |

861043

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 19.30 | **HORNFELS (SILTSTONE) AND CLAY**<br><br>Extremely weathered (about 50% of the rock mass reduced to clay) dark grey fine grained hornfels (siltstone) and pale brown clay (after rock); with common ironstaining on joints and fractures and pervasive in the clay.<br><br>BCA is obscure.<br><br>The interval is extremely broken and puggy; at 12.4m driller reported "ground up clay and 2 X 0.5m cavities".<br><br>The contact with the next interval is gradational (weathering). | | | | | | | | | |
| 19.30 | 23.00 | **CLAY, LESSER CLAYSTONE AND LESSER HORNFELS (VOLCANICLASTIC)**<br><br>Extremely weathered (reduced to clay for the most part) pale brown clay (after rock) and claystone (after rock) and lesser brown and grey fine grained hornfels (volcaniclastic); with common ironstaining pervasive throughout.<br><br>BCA is obscure.<br><br>The interval is puggy and extremely broken.<br><br>The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 23.00 | 26.20 | **HORNFELS (VOLCANICLASTIC)**<br><br>Dark grey fine grained hornfels (volcaniclastic) with sparse ironstaining on joints and fractures.<br><br>BCA is obscure.<br><br>The interval is extremely broken (rubbly).<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 26.20 | 27.50 | **CAVITY**<br><br>No core recovered: drillers reported "cavity".<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 27.50 | 33.70 | **HORNFELS (VOLCANICLASTIC) AND MUCH LESSER CHERT**<br><br>Interbedded dark grey fine grained hornfels (volcaniclastic) and much lesser chert; with sparse brown clay, common ironstaining on joints and fractures. | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure.<br><br>The interval is extremely broken (rubbly).<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 33.70 | 40.60 | **HORNFELS (VOLCANICLASTIC) AND CLAY**<br><br>Dark grey fine grained hornfels (volcaniclastic) and mottled brown clay (after rock); with sparse actinolite as stringers in the hornfels, common ironstaining on joints and fractures.<br><br>BCA is obscure.<br><br>The interval is extremely broken (rubbly) and puggy.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 40.60 | 44.02 | **HORNFELS (VOLCANICLASTIC) AND MUCH LESSER CHERT**<br><br>Interbedded brown and brown-grey fine grained hornfels (volcaniclastic, crystal volcaniclastic in part) and much lesser mottled brown chert; with sparse quartz as stringers and lace veining, minor actinolite as stringers and patches, sparse ironstaining on joints.<br><br>BCA is obscure.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 44.02 | 55.70 | **HORNFELS (VOLCANICLASTIC, LESSER SILTSTONE) AND MUCH LESSER CHERT**<br><br>Interbedded brown and brown-grey fine grained hornfels (volcaniclastic and lesser siltstone) and much lesser mottled brown chert; with minor actinolite as stringers and veins, sparse quartz interstitial to brecciated chert.<br><br>Bedding in the chert is ruptured resulting in a brecciated fabric.<br>BCA at 50.5m = 45 degrees.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |

861045

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 55.70 | 61.40 | **HORNFELS (VOLCANICLASTIC) AND CHERT**<br><br>As between 44.02m and 55.70m but hornfels and chert in about equal proportions; with minor actinolite as stringers and small patches, minor phlogopite pervasive in part.<br><br>BCA is obscure.<br><br>The interval is extremely broken (rubbly) especially between 55.7m and 58.9m after hole size was reduced from HQ to NQ at 55.7m.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 61.40 | 73.70 | **HORNFELS (VOLCANICLASTIC), LESSER CHERT AND MUCH LESSER ACTINOLITE SKARN**<br><br>Interbedded dark grey and brown-grey fine to medium grained hornfels (volcaniclastic) and lesser mottled brown chert and much lesser interbanded actinolite skarn developed in brecciated chert; hornfels and chert with sparse actinolite as stringers, minor phlogopite pervasive in hornfels in part; skarn with abundant schorl becoming semi-massive in bands towards 73.70m, minor pyrite as blebs and stringers, sparse chalcopyrite as fine flecks, sparse sphalerite as flecks, trace galena as flecks.<br><br>The skarn is slightly vuggy.<br><br>Bedding in the chert is ruptured resulting in a brecciated fabric.<br>BCA at 67.7m = 50 degrees.<br>BCA at 69.5m = 60 degrees.<br>BCA at 72.0m = 60 degrees.<br><br>The interval is very broken.<br><br>The contact with the next interval is sharp at 70 degrees to the core axis. | | | | | | | | | |
| 73.70 | 78.78 | **PSEUDOCONGLOMERATE: BRECCIATED HORNFELS (VOLCANICLASTIC) AND CHERT**<br><br>Intermixed dark grey fine to medium grained hornfels (volcaniclastic) and brown chert; with sparse quartz as stringers, minor pyrite as stringers and veinlets and as fine grained pyrite replacing? some fragments.<br><br>Bedding is completely ruptured and brecciated resulting in a "conglomeratic" appearance; fragments are up to 4cm across.<br><br>The interval is very broken.<br><br>The contact with the next interval is sharp, but somewhat irregular, at 45 degrees to the | | | | | | | | | |

861046

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | core axis. | | | | | | | | | |
| **78.78** | **80.65** | **BRECCIATED CHERT**<br><br>Mottled grey, green, black and brown brecciated chert with abundant actinolite interstitial to breccia and as stringers, sparse ironstained quartz as slightly vuggy stringers, sparse interstitial chlorite.<br><br>This is a hydraulically? brecciated interval rather than a fault.<br><br>BCA is obscure.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is sharp at 50 degrees to the core axis. | | | | | | | | | |
| **80.65** | **82.04** | **HORNFELS (VOLCANICLASTIC) AND CHERT**<br><br>As between 73.70m and 78.78m.<br><br>BCA is obscure.<br><br>The interval is very broken.<br><br>The contact with the next interval is sharp and slightly irregular at about 45 degrees to the core axis. | | | | | | | | | |
| **82.04** | **83.20** | **CHERT**<br><br>As between 78.78m and 80.65m.<br><br>BCA is obscure.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **83.20** | **104.00** | **HORNFELS (VOLCANICLASTIC AND MUCH LESSER SILTSTONE) AND LESSER CHERT**<br><br>Interbedded dark grey to brown-grey fine to medium grained hornfels (volcaniclastic and much lesser siltstone) and lesser mottled brown chert; with sparse actinolite interstitial to brecciated chert and as stringers and bands, sparse quartz as slightly vuggy slightly ironstained stringers, trace crystalline pyrite on joints.<br><br>Bedding in the chert is ruptured and the chert is brecciated. | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA at 90.3m = 50 degrees<br>BCA at 96.8m = 40 degrees<br><br>The interval is very broken to extremely broken.<br><br>The contact with the next interval is gradational (mineralogy). | | | | | | | | | |
| 104.00 | 107.70 | **HORNFELS (VOLCANICLASTIC), CHERT AND ACTINOLITE SKARN**<br><br>Interbedded and interbanded mottled brown fine to medium grained hornfels (siltstone and volcaniclastic) and chert and mottled green (actinolite) skarn; with sparse schorl as crystals in stringers, trace green silicate? as fine flecks in skarn, sparse epidote as blebs associated with actinolite, trace chalcopyrite throughout.<br><br>Bedding is generally ruptured but<br>BCA at 104.4m = 40 degrees<br>BCA at 107.2m = 60 degrees<br><br>The interval is broken to very broken.<br><br>The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 107.70 | 122.94 | **PSEUDOCONGLOMERATE: BRECCIATED HORNFELS (VOLCANICLASTIC) AND SILTSTONE AND LESSER CHERT**<br><br>Brecciated dark grey and brown siltstone and fine to medium grained hornfels (volcaniclastic) and lesser brown chert; with sparse epidote as veinlets and veins, sparse partly vuggy pyrite as stringers and veinlets, sparse quartz as stringers and veinlets, sparse pyrrhotite as stringers.<br><br>Bedding is ruptured and the interval is (hydraulically?) brecciated, with fragments up to 10cm across, resulting in a conglomeratic appearance.<br><br>BCA is obscure.<br><br>The interval is very broken.<br><br>The contact with the next interval is gradational (mineralogy). | | | | | | | | | |
| 122.94 | 124.89 | **HORNFELS (VOLCANICLASTIC), CHERT AND ACTINOLITE-AXINITE SKARN**<br><br>Interbedded grey-brown (phlogopite) fine to medium grained hornfels (volcaniclastic) and brown chert and interbanded green and pink actinolite-axinite skarn; hornfels and chert with sparse quartz as stringers, sparse actinolite as stringers, sparse pyrite as blebs; skarn with minor crystalline schorl as small patches, sparse pyrrhotite associated with schorl, sparse epidote as small patches, trace pyrite as flecks, trace chalcopyrite as | | | | | | | | | |

861048

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | fine flecks. | | | | | | | | | |
| | | BCA at 123.9m = 60 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 60 degrees to the core axis. | | | | | | | | | |
| **124.89** | **130.44** | **HORNFELS AND CHERT** | | | | | | | | | |
| | | Interbedded dark grey and brown fine to medium grained hornfels (volcaniclastic and siltstone) and brown chert; with sparse actinolite as stringers and veinlets, sparse quartz as stringers, lace veining and veinlets, trace pyrrhotite associated with quartz, sparse crystalline pyrite on joints. | | | | | | | | | |
| | | Bedding in the chert is ruptured and BCA is irregular but BCA at 129.3m = 50 degrees. | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 30 degrees to the core axis. | | | | | | | | | |
| **130.44** | **131.12** | **BRECCIATED CHERT** | | | | | | | | | |
| | | Mottled grey, white and green brecciated chert with common interstitial actinolite, minor quartz as blebs and small patches. | | | | | | | | | |
| | | Bedding has been destroyed. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **131.12** | **136.61** | **CHERT AND HORNFELS** | | | | | | | | | |
| | | Interbedded grey and grey-green fine to medium grained hornfels (volcaniclastic) and white and grey banded chert; with sparse pyrrhotite and pyrite as fine flecks and stringers, trace crystalline pyrite on joints. | | | | | | | | | |
| | | A breccia vein up to about 1cm true thickness occurs irregularly sub-parallel to the core axis throughout the interval: brown-black serpentinite fragments up to 1cm across in a vuggy (waterworn) mottled brown calcite-quartz matrix. | | | | | | | | | |
| | | BCA at 133.9m = 80 degrees.<br>BCA at 136.3m = 65 degrees. | | | | | | | | | |

861049

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is very broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 136.61 | 141.80 | **HORNFELS AND CHERT** | | | | | | | | | |
| | | Banded grey and cream fine to medium grained hornfels (volcaniclastic) and chert: with serpentinite breccia veinlet (as between 131.12m and 136.61m) at about 15 degrees to the core axis between 140.7m and 140.9m; with sparse actinolite as stringers, trace pyrrhotite as disseminations, trace crystalline pyrite on joints. | | | | | | | | | |
| | | BCA at 139.0m = 75 degrees.<br>BCA at 141.0m = 60 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 141.80 | 144.91 | **CHERT** | | | | | | | | | |
| | | Mottled cream, green-grey, dark grey and black brecciated chert with trace actinolite? (epidote?) as stringers, sparse schorl? as stringers, sparse disseminated pyrrhotite; with serpentinite breccia veinlet (as between 131.12m and 136.61m) at about 15 degrees to the core axis between 142.3m and 142.6m. | | | | | | | | | |
| | | 143.60m to 143.81m: quartz-serpentinite?-pyrrhotite band, at 60 degrees to the core axis; with 1cm thickness of calcite on second contact. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| 144.91 | 147.31 | **CHERT AND HORNFELS** | | | | | | | | | |
| | | As between 131.12m and 136.61m. | | | | | | | | | |
| | | The interval is extremely broken and puggy in part. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| 147.31 | 156.30 | **BRECCIATED SKARNISED CHERT** | | | | | | | | | |
| | | Mottled cream, grey and green brecciated skarnised chert with common actinolite interstitial to breccia and massive in places, sparse schorl as diffuse small patches, | | | | | | | | | |

861050

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | sparse epidote? as small patches, sparse to minor pyrrhotite as disseminations and stringers, trace crystalline pyrite on joints. | | | | | | | | | |
| | | Bedding is ruptured but the interval has a conglomeratic appearance only in part. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithological). | | | | | | | | | |
| **156.30** | **163.64** | **HORNFELS AND CHERT** | | | | | | | | | |
| | | As between 136.61m and 141.80m but with minor pyrrhotite and pyrite as stringers and small patches. | | | | | | | | | |
| | | BCA at 158.0m = 60 degrees<br>BCA at 162.5m = 65 degrees | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **163.64** | **167.29** | **FAULT** | | | | | | | | | |
| | | Mottled green and green-grey rock (hornfels?) rubble and lesser grey-green pug; some slickensided planes occur. | | | | | | | | | |
| | | The interval is rubbly and puggy; only 0.95m of core was recovered from the interval, a core recovery of 26%. | | | | | | | | | |
| | | The vein in the next interval is probably part of this fault; note the change in rock type following the vein in the next interval. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **167.29** | **167.44** | **QUARTZ-CALCITE VEIN** | | | | | | | | | |
| | | Massive white calcite vein with brown quartz core and much lesser included black rock fragments. | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | |
| **167.44** | **186.08** | **CONGLOMERATE** | | | | | | | | | |
| | | Poorly sorted pebble to cobble conglomerate: pebbles and cobbles of fine grained quartzite and cherty quartzite, some with preserved bedding, up to 8cm across in an actinolitic matrix; pebbles and cobbles are angular to rounded suggesting an immature | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | provenance; white, cream, grey and green pebbles in green groundmass, common axinite as small patches and pervasive in some pebbles; with sparse calcite and quartz as stringers, trace chalcopyrite as fine flecks. | | | | | | | | | |
| | | 182.91m to 183.11m: breccia with calcite matrix: fault? | | | | | | | | | |
| | | BCA is not clear. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 75 degrees to the core axis. | | | | | | | | | |
| 186.08 | 188.48 | **CHERTY HORNFELS** | | | | | | | | | |
| | | Mottled light and dark grey cherty fine grained hornfels (fine grained volcaniclastic) with sparse crystalline pyrite on joints, sparse pyrrhotite as stringers and lace veining. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 75 degrees to the core axis. | | | | | | | | | |
| 188.48 | 199.65 | **CONGLOMERATE AND RARE VOLCANICLASTIC** | | | | | | | | | |
| | | As between 167.44m and 186.08m plus a narrow volcaniclastic band between 198.41m and 198.45m. | | | | | | | | | |
| | | BCA is typically 65 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 70 degrees to the core axis. | | | | | | | | | |
| 199.65 | 200.66 | **CRYSTALLINE ROCK (ALTERED VOLCANICLASTIC)** | | | | | | | | | |
| | | Green and lesser white fine grained crystalline rock (altered volcaniclastic?) with trace axinite as fine flecks, trace schorl as small flecks, sparse quartz and calcite as stringers, trace pyrrhotite? as disseminations, trace chalcopyrite as flecks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular at a high angle to the core axis. | | | | | | | | | |

861052

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 200.66 | 221.90 | **CONGLOMERATE AND RARE CHERT** | | | | | | | | | |
| | | As between 188.48m and 199.65m and rare brown chert as bands up to 30cm long plus sparse schorl as fine flecks; some fine grained bands in the conglomerate may be volcaniclastic. | | | | | | | | | |
| | | 209.29m to 213.92m: cherty interval<br>218.79m to 220,55m: cherty interval | | | | | | | | | |
| | | BCA at 207.3m = 40 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 55 degrees to the core axis. | | | | | | | | | |
| 221.90 | 223.89 | **ACTINOLITE-EPIDOTE SKARN** | | | | | | | | | |
| | | Massive mottled light and dark green actinolite skarn with sparse quartz, trace calcite as small patches, sparse pyrrhotite as stringers, sparse schorl as flecks and stringers, minor to common epidote as patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 223.89 | 224.15 | **CONGLOMERATE AND RARE CHERT** | | | | | | | | | |
| | | As between 200.66m and 221.90m | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 224.15 | 243.44 | **ACTINOLITE SKARN** | | | | | | | | | |
| | | Massive dark green actinolite rock with remnant white and brown quartz pebbles? suggesting that this is an altered conglomerate, perhaps originally a pebbly limestone; with crystalline schorl as small patches, sparse calcite associated with schorl, sparse crystalline axinite associated with schorl. | | | | | | | | | |
| | | 226.53m to 226.73m: quartz-calcite-axinite vein with sparse actinolite, high VCA | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |

861053

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **243.44** | **244.44** | **CHERT** | | | | | | | | | |
| | | Mottled brown, cream and grey chert with sparse actinolite as stringers, trace disseminated pyrrhotite. | | | | | | | | | |
| | | Bedding is ruptured or brecciated, BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **244.44** | **246.84** | **CONGLOMERATE AND RARE CHERT AND ACTINOLITE SKARN** | | | | | | | | | |
| | | Intermixed conglomerate and rare chert as between 223.87m and 224.15m and actinolite skarn as between 243.44m and 244.44m. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **246.84** | **247.20** | **SERPENTINITE** | | | | | | | | | |
| | | Massive brown and green serpentinite with trace disseminated pyrrhotite. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **247.20** | **248.27** | **CONGLOMERATE AND RARE CHERT AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 244.44m and 246.84m with a brecciated fabric. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **248.27** | **248.80** | **CHERT** | | | | | | | | | |
| | | Dark brown-black fine to coarse grained chert (volcaniclastic). | | | | | | | | | |

861054

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A029

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 50 degrees to the core axis. | | | | | | | | | |
| **248.80** | **249.22** | **CONGLOMERATE AND RARE CHERT AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 247.20m and 248.27m plus sparse brown sphalerite as fine flecks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 45 degrees to the core axis. | | | | | | | | | |
| **249.22** | **254.39** | **TREMOLITE-CALCITE SKARN AND LESSER ACTINOLITE SKARN** | | | | | | | | | |
| | | Light green tremolite-calcite skarn and lesser dark green actinolite skarn; with minor crystalline schorl as patches, sparse calcite as stringers and small patches, trace pyrrhotite as disseminations and fine flecks, sparse disseminated sphalerite. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **254.39** | **254.00** | **CONGLOMERATE AND RARE CHERT AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 248.80m and 249.22m | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | **END OF HOLE AT 254.0m** | | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**

861055

| | |
|---|---|
| **Commenced:** | 16 March 2001 |
| **Completed:** | 17 April 2001 |
| **Logged By:** | L.A.Newnham |
| **Drilled By:** | Almac Drilling |

**Purpose of Hole**

To test the western margin of the South Avebury deposit approx 50 m. vertically beneath A 028, down plunge of A 014.

**Comments on Completion**

hole intersected South Avebury -north lens, and South Avebury- south lens. South lens is interpreted as south dipping and consisted of semi massive pyrrhotite with only minor pentlandite. North lens was well mineralised including zones of 1.98% and 2.19% Ni. Significant sulfides and nickel between north and south lenses;

**Collar Details**

| Grid | Northing | Easting | Elevation | Dip | Bearing |
|---|---|---|---|---|---|
| AMG | 5 357 455.7 | 354 396.0 | 2181.8 | -57 | 181.5 |

| Length (m) |
|---|
| 446 |

**Hole Size**

| To (m) | Size |
|---|---|
| 21.7 | HQ |
| 446 | NQ |
| | |
| | |
| | |

**Significant Core Loss Zones**

| From | To | %Rec. |
|---|---|---|
| 0.0 | 6.0 | 0 |
| | | |
| | | |
| | | |
| | | |

**Hole Condition on Completion**

all steel casing and rods removed from hole;
maxibore survey completed;
PVC collar pipe inserted;

**Summary of Results:**

| Depth | | Recovery | Description | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | % | | Length | Ni % | As % | Cu% | Zn% | S% | | |
| 280.9 | 290.5 | 100 | South Avebury - north lens; pent-pyrrhotite on serpentinite margin; | 9.6 | 1.39 | <0.01 | 0.01 | | 2.0 | | |
| incl 280.9 | 285.0 | 100 | | 4.1 | 1.98 | <0.01 | 0.01 | | 3.0 | | |
| incl 289.0 | 290.5 | 100 | | 1.5 | 2.19 | 0.04 | 0.01 | | 3.2 | | |
| | | | | | | | | | | | |
| 325.0 | 333.0 | 100 | | 8.0 | 0.56 | <0.01 | 0.02 | | 3.4 | | |
| 393.0 | 397.0 | 100 | | 4.0 | 0.58 | <0.01 | 0.01 | | 1.6 | | |
| 418.0 | 427.0 | 100 | South Avebury - south lens; semi-massive pyrr., mag., minor pent; | 9.0 | 0.40 | <0.01 | 0.05 | | 3.7 | | |

**DOWN HOLE SURVEY DATA**

861056

**COMPANY: Allegiance**
**PROJECT: Avebury Project**
**HOLE NUMBER: A 034**

| Depth | Dip | Bearing | Interval | | Length | Vertical Distance | | Horizontal Distance | | Co-ordinates | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (m) | | (AMG) | From | To | (D) | D.sin dip | R.L. | D. cos dip (HD) | Cumulative HD | N. distance HD. cos brg. | N. co-ordinate | E. distance HD. sin brg. | E. co-ordinate |
| COLLAR | -57 | 181.5 | | | | | 2181.80 | | 0.00 | | 5,357,455.7 | | 354,396.0 |
| 0 | -57 | 181.5 | 0 | 12.5 | 12.5 | 10.48 | 2171.32 | 6.81 | 6.81 | -6.81 | 5,357,448.9 | -0.18 | 354,395.8 |
| 25 | -57 | 181.1 | 12.5 | 37.5 | 25 | 20.97 | 2150.35 | 13.62 | 20.42 | -13.61 | 5,357,435.3 | -0.26 | 354,395.6 |
| 50 | -56.5 | 181.8 | 37.5 | 75.5 | 38 | 31.69 | 2118.66 | 20.97 | 41.40 | -20.96 | 5,357,414.3 | -0.66 | 354,394.9 |
| 101 | -55.4 | 182.5 | 75.5 | 126.5 | 51 | 41.98 | 2076.68 | 28.96 | 70.36 | -28.93 | 5,357,385.4 | -1.26 | 354,393.6 |
| 152 | -54.7 | 184.6 | 126.5 | 176 | 49.5 | 40.40 | 2036.28 | 28.60 | 98.96 | -28.51 | 5,357,356.9 | -2.29 | 354,391.3 |
| 200 | -54.1 | 186.1 | 176 | 225 | 49 | 39.69 | 1996.59 | 28.73 | 127.69 | -28.57 | 5,357,328.3 | -3.05 | 354,388.3 |
| 250 | -52.9 | 187.4 | 225 | 276 | 51 | 40.68 | 1955.91 | 30.76 | 158.46 | -30.51 | 5,357,297.8 | -3.96 | 354,384.3 |
| 302 | -52.6 | 188.3 | 276 | 326 | 50 | 39.72 | 1916.19 | 30.37 | 188.83 | -30.05 | 5,357,267.7 | -4.38 | 354,379.9 |
| 350 | -53 | 188.8 | 326 | 375 | 49 | 39.13 | 1877.06 | 29.49 | 218.32 | -29.14 | 5,357,238.6 | -4.51 | 354,375.4 |
| 400 | -53 | 190 | 375 | 423 | 48 | 38.33 | 1838.73 | 28.89 | 247.20 | -28.45 | 5,357,210.2 | -5.02 | 354,370.4 |
| 446 | -53 | 190 | 423 | 446 | 23 | 18.37 | 1820.36 | 13.84 | 261.04 | -13.63 | 5,357,196.5 | -2.40 | 354,368.0 |
| 446 | | | | | | | | | | | | | |

hole was surveyed with down hole camera and maxibore; collar was surveyed by licenced surveyor; camera bearings were influenced by magnetite and these bearings have been adjusted with readings from the collar and maxibore surveys.

861057

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 0.0 | 5.0 | **RUBBLE, no core:** | 0.0 | 6.0 | 0 | 0.0 | 9.1 | 10 | | | | | | | | |
| 5.0 | 7.4 | **RUBBLE and minor core:**<br>minor fresh core consists of gray fine grained hornfelsed sediments; | 6.0 | 7.2 | 10 | | | | | | | | | | | |
| 7.4 | 193.0 | **SEDIMENTS, altered and hornfelsed:**<br>**7.0-11.5 m:** fresh core; dark gray-purplish spotted altered sediments;<br>BCA at 9.0 m: 30°;<br>core very broken along joint sets and bedding planes;<br>**11.5-15.5 m:** light-dark gray, green purplish sediments; sheared and brecciated unit with schistosity sub-parallel to core axis; minor quartz veins introduced along schistosity;<br>**15.5-85.0 m:** purplish hornfelsed sediments; chloritic patches and white spotting pervasive; increase down hole in amount of light brown, fine grained mineral, probably phlogopite, resulting in overall mottled light brown-green appearance;<br>18.5-19.0 m: crushed, schistose zone;<br>below 38.0 m; late stage remobilised pyrite along fractures and replacing some altered zones; minor 1-2 mm quartz-chlorite veinlets common with ocassional larger masses of quartz-chlorite;<br>below 81.5 m: fragmental shaley and tuffaceous units with BCA 45°;<br>core remains broken along several joint sets, including one sub-parallel to core axis;<br>**85.0-98.5 m:** dark gray-green hornfelsed sediments; pervasive dark green color due to fine grained fibrous amphibole (actinolite/chlorite ?);<br>BCA at 94 m: 40;<br>lighter colored green-white bands towards base of unit carry 4-5% sulfides (pyrite and chalcopyrite);<br>core moderately broken along bedding and several joint sets; | 7.2 | 98.5 | 100 | 9.1 | 11.7 | 20 | | | | | | | | |
| | | | | | | 11.7 | 14.2 | 15 | | | | | | | | |
| | | | | | | 14.2 | 17.0 | 35 | | | | | | | | |
| | | | | | | 17.0 | 20.3 | 80 | | | | | | | | |
| | | | | | | 20.3 | 23.8 | 60 | | | | | | | | |
| | | | | | | 23.8 | 27.6 | 50 | | | | | | | | |
| | | | | | | 27.6 | 31.3 | 40 | | | | | | | | |
| | | | | | | 31.3 | 35.2 | 60 | | | | | | | | |
| | | | | | | 35.2 | 38.9 | 40 | | | | | | | | |
| | | | | | | 38.9 | 42.7 | 40 | | | | | | | | |
| | | | | | | 42.7 | 46.9 | 60 | | | | | | | | |
| | | | | | | 46.9 | 50.8 | 50 | | | | | | | | |
| | | | | | | 50.8 | 54.7 | 40 | | | | | | | | |
| | | | | | | 54.7 | 58.7 | 60 | | | | | | | | |
| | | | | | | 58.7 | 62.7 | 50 | | | | | | | | |
| | | | | | | 62.7 | 66.6 | 50 | | | | | | | | |
| | | | | | | 66.6 | 70.6 | 60 | | | | | | | | |
| | | | | | | 70.6 | 74.7 | 70 | | | | | | | | |
| | | | | | | 74.7 | 78.6 | 60 | | | | | | | | |
| | | | | | | 78.6 | 82.8 | 70 | | | | | | | | |
| | | | | | | 82.8 | 86.7 | 60 | | | | | | | | |
| | | | | | | 86.7 | 91.1 | 70 | | | | | | | | |
| | | | | | | 91.1 | 95.5 | 80 | | | | | | | | |
| | | | | | | 95.5 | 99.8 | 80 | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 7.4 | 193.0 | **98.5-109.0 m:** mottled, cherty hornfelsed | 98.5 | 193.0 | 100 | 99.8 | 103.9 | 90 | | | | | | | | |
| continued..... | | sediments; generally light gray, medium | | | | 103.9 | 108.2 | 90 | | | | | | | | |
| | | grained, strongly silicified; micro brecciated | | | | 108.2 | 112.6 | 85 | | | | | | | | |
| | | (hydrothermally fractured) intervals | | | | 112.6 | 116.5 | 75 | | | | | | | | |
| | | intermixed with dark green felted altered | | | | 116.5 | 120.5 | 70 | | | | | | | | |
| | | mafic units; | | | | 120.5 | 124.4 | 70 | | | | | | | | |
| | | BCA 40°: | | | | 124.4 | 128.7 | 75 | | | | | | | | |
| | | minor thin late stage veinlets filled with | | | | 128.7 | 133.1 | 70 | | | | | | | | |
| | | sulfides (pyrite?); | | | | 133.1 | 137.5 | 75 | | | | | | | | |
| | | ground conditions moderately good; some low | | | | 137.5 | 141.4 | 65 | | | | | | | | |
| | | angled hackley fracturing; | | | | 141.4 | 145.8 | 70 | | | | | | | | |
| | | **109.0-146.5 m:** monotonous dark brown | | | | 145.8 | 150.2 | 85 | | | | | | | | |
| | | (phlogopitic) and dark green (amphibole) | | | | 150.2 | 154.6 | 90 | | | | | | | | |
| | | mottled and hornfelsed sediments with minor | | | | 154.6 | 159.1 | 80 | | | | | | | | |
| | | units of lighter gray more silicified, cherty | | | | 159.1 | 163.3 | 80 | | | | | | | | |
| | | and brecciated sediments; | | | | 163.3 | 167.5 | 90 | | | | | | | | |
| | | minor late stage quartz-chlorite veining; | | | | 167.5 | 171.7 | 85 | | | | | | | | |
| | | BCAs: 121 m-30°, 127 m-70°, generally 50°; | | | | 171.7 | 175.7 | 65 | | | | | | | | |
| | | trace disseminated sulfides; | | | | 175.7 | 179.4 | 40 | | | | | | | | |
| | | ground moderately competent with several | | | | 179.4 | 183.5 | 80 | | | | | | | | |
| | | widely spaced joint sets; | | | | 183.5 | 187.5 | 85 | | | | | | | | |
| | | **146.5-163.5 m:** dark green-dark brown and | | | | | | | | | | | | | | |
| | | gray altered sediments interbedded with | | | | | | | | | | | | | | |
| | | minor light gray cherty bands; brown color | | | | | | | | | | | | | | |
| | | due to fine phlogopite; | | | | | | | | | | | | | | |
| | | at 149.1 m: 20 mm actinolite band with | | | | | | | | | | | | | | |
| | | abundant splashes chalcopyrite; band 45° CA; | | | | | | | | | | | | | | |
| | | cherty units fractured and infilled with light | | | | | | | | | | | | | | |
| | | brown and dark green chlorite-actinolite; | | | | | | | | | | | | | | |
| | | BCA generally 50-60°; | | | | | | | | | | | | | | |
| | | **163.5-167.0 m:** light brown and cream | | | | | | | | | | | | | | |
| | | cherty sediments intermixed with irregular | | | | | | | | | | | | | | |
| | | patches green felted talc-actinolite; | | | | | | | | | | | | | | |
| | | BCA 50-60°; | | | | | | | | | | | | | | |
| | | only very rare grains sulfide; | | | | | | | | | | | | | | |
| | | ground conditions moderately good; | | | | | | | | | | | | | | |
| | | **167.0-193.0 m:** monotonous sequence dark | | | | | | | | | | | | | | |
| | | gray and dark brown medium-fine grained | | | | | | | | | | | | | | |
| | | altered and hornfelsed sediments; brown color | | | | | | | | | | | | | | |
| | | probably due to phlogopite or dravite;large | | | | | | | | | | | | | | |
| | | masses and veins of softer felted light green | | | | | | | | | | | | | | |
| | | amphibole common with ocassional small | | | | | | | | | | | | | | |
| | | specs of very bright green mineral; | | | | | | | | | | | | | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | ppmCo | % Zn | % As |
| 7.4 continued..... | 193.0 | sulfides restricted to several intervals where pyrite (?) infills late veins and joints; also associated with green felted amphibole masses;<br>BCA 50-60°;<br>core moderately competent but fracturing still common along bedding and joint surfaces;<br>some irregular brittle fracturing;<br>grades into unit below; | | | | | | | | | | | | | | |
| 193.0 | 280.1 | **SULFIDIC SEDIMENTS, hornfelsed, altered fractured:**<br>essentially same as unit above but overall increase in hornfelsing/alteration, hydrothermal fracturing and late stage remobilised sulfides;<br>interbedded dark gray-dark brown-purplish fine grained sediments and lighter gray, medium-coarse grained sediments- gritty appearance in places;<br>the **darker finer grained units** are extensively hydrothermally fractured;<br>BCA typically 60-70°;<br>sulfides (? pyrrhotite/pentlandite) is common as fracture fillings, and ocassionally as large isolated massesup to 30 mm across;<br>the **pale colored coarser grained units** display more intense hydrothermal brecciation resulting in a "conglomeratic"appearance in places; these units are intensely hornfelsed and altered with extensive development of zones of felted amphiboles;<br>lesser sulfides in these coarser more fragmented units, typically occurring as small discrete aggregates of pyrrhotite or as late stage infilling of thin fractures;<br>**193.0-196.0 m:** dark gray and brown fine grained altered mafic sediments; fine fracturing infilled with late stage sulfides;<br>**196.0-198.0 m:** lighter gray brecciated and silicified sediments; patchy purple color possibly axinite; felted amphibole masses; | 193.0 | 280.1 | 100 | 187.5 | 191.4 | 70 | 205.0 | 206.0 | <0.01 | 0.24 | <0.01 | 78 | | |
| | | | | | | 191.4 | 195.6 | 85 | 206.0 | 207.0 | <0.01 | 1.81 | 0.03 | 72 | | |
| | | | | | | 195.6 | 200.0 | 95 | 207.0 | 208.0 | <0.01 | 1.50 | 0.03 | 68 | | |
| | | | | | | 200.0 | 204.2 | 75 | 208.0 | 209.0 | <0.01 | 0.19 | 0.01 | 145 | | |
| | | | | | | 204.2 | 208.6 | 90 | 209.0 | 210.0 | <0.01 | 0.84 | 0.02 | 74 | | |
| | | | | | | 208.6 | 213.2 | 100 | 210.0 | 211.0 | <0.01 | 0.78 | 0.02 | 80 | | |
| | | | | | | 213.2 | 217.8 | 90 | 211.0 | 212.0 | <0.01 | 0.57 | 0.02 | 62 | | |
| | | | | | | 217.8 | 227.1 | 100 | 212.0 | 213.0 | <0.01 | 0.58 | 0.02 | 70 | | |
| | | | | | | 227.1 | 231.6 | 90 | 213.0 | 214.0 | <0.01 | 0.93 | 0.02 | 48 | | |
| | | | | | | 231.6 | 236.0 | 85 | 214.0 | 215.0 | <0.01 | 1.71 | 0.03 | 68 | | |
| | | | | | | 236.0 | 245.3 | 100 | 215.0 | 216.0 | <0.01 | 0.53 | 0.02 | 54 | | |
| | | | | | | 245.3 | 249.6 | 90 | 216.0 | 217.0 | <0.01 | 0.97 | 0.03 | 50 | | |
| | | | | | | 249.6 | 254.2 | 90 | 217.0 | 218.0 | <0.01 | 1.08 | 0.03 | 50 | | |
| | | | | | | 254.2 | 258.5 | 100 | 218.0 | 219.0 | <0.01 | 0.36 | <0.01 | 48 | | |
| | | | | | | 258.5 | 263.0 | 95 | 219.0 | 220.0 | <0.01 | 0.13 | <0.01 | 40 | | |
| | | | | | | 263.0 | 267.4 | 90 | 220.0 | 221.0 | <0.01 | 0.60 | 0.01 | 52 | | |
| | | | | | | 267.4 | 272.1 | 95 | 221.0 | 222.0 | <0.01 | 0.56 | 0.03 | 66 | | |
| | | | | | | 272.1 | 276.3 | 90 | 222.0 | 223.0 | <0.01 | 0.43 | 0.01 | 46 | | |
| | | | | | | 276.3 | 280.6 | 70 | 223.0 | 224.0 | <0.01 | 0.73 | 0.02 | 58 | | |
| | | | | | | | | | 224.0 | 225.5 | <0.01 | 0.71 | 0.02 | 66 | | |
| | | | | | | | | | 225.5 | 226.5 | <0.01 | 0.22 | 0.07 | 50 | | |
| | | | | | | | | | 226.5 | 227.5 | <0.01 | 0.26 | 0.03 | 84 | | |
| | | | | | | | | | 227.5 | 228.5 | 0.01 | 0.27 | 0.03 | 78 | | |
| | | | | | | | | | 228.5 | 229.5 | 0.01 | 0.28 | 0.11 | 150 | | |
| | | | | | | | | | 229.5 | 230.5 | <0.01 | 0.17 | 0.02 | 78 | | |
| | | | | | | | | | 230.5 | 231.5 | 0.02 | 0.36 | 0.02 | 130 | | |
| | | | | | | | | | 231.5 | 232.5 | 0.01 | 0.14 | 0.01 | 345 | | |
| | | | | | | | | | 232.5 | 233.5 | <0.01 | 0.07 | <0.01 | 90 | | |
| | | | | | | | | | 233.5 | 235.0 | 0.01 | 0.81 | 0.05 | 125 | | |
| | | | | | | | | | 235.0 | 235.5 | 0.05 | 3.35 | 0.07 | 165 | | |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | ppmCo | % Zn | % As |
| 193.0 continued | 280.1 ..... | **198.0-208.0 m:** intermixed dark gray-brown fine-medium grained sediments and lighter gray strongly silicified hydrothermally fractured sediments with large areas of felted quartz-amphibole; sulfides, mainly pyrrhotite, becoming common towards base of unit, infilling fine fractures, as irregular veinlets and large irregular blebs up to 10 mm. across; grades into..... **208.0-214.5 m:** light gray silicified fine grained fractured sediments with minor axinite and schorl intermixed with dark gray and brownintensely altered sediments; BCA generally 60°; abundant sulfides, mainly pyrrhotite, infilling fine fractures, irregular seams associated with silicification, and large irregular masses (3-4% overall); grades into..... **214.5-225.8 m:** light gray-brown, mottled, intensely altered and silicified sediments with abundant schorl, axinite, and felted amphibole; brown color due to dravite ? significant increase in schorl and axinite below 222 m; sulfides common (5%) as infillings in fine fractures, irregular veinlets, large masses associated with schorl-axinite-amphibole; unit very hard and competent; **225.8-226.3 m:** large masses of black schorl carrying abundant patches and veinlets of chalcopyrite and pentlandite (?); **226.3-235.3 m:** strong silicification-schorl-axinite alteration continues with common seams and veinlets of sulfides (pyrrhotite, chalcopyrite in places and possibly pentlandite); BCA generally 60°; at 230.5 m., schistose fabric in core 45° CA; **235.3-251.0 m:** strongly altered mottled silicified units interbedded with dark gray altered mafic units; | | | | | | | 235.5 | 236.5 | 0.03 | 0.05 | <0.01 | 54 | | |
| | | | | | | | | | 236.5 | 237.5 | 0.03 | 0.37 | 0.02 | 60 | | |
| | | | | | | | | | 237.5 | 238.5 | 0.02 | 0.50 | 0.04 | 50 | | |
| | | | | | | | | | 238.5 | 239.5 | 0.02 | 0.21 | <0.01 | 48 | | |
| | | | | | | | | | 239.5 | 240.5 | 0.03 | 0.75 | 0.03 | 60 | | |
| | | | | | | | | | 240.5 | 242.0 | 0.01 | 0.96 | 0.03 | 72 | | |
| | | | | | | | | | 242.0 | 243.0 | 0.01 | 1.84 | 0.06 | 145 | | |
| | | | | | | | | | 243.0 | 244.0 | 0.02 | 2.05 | 0.05 | 135 | | |
| | | | | | | | | | 244.0 | 245.0 | 0.02 | 0.96 | 0.02 | 92 | | |
| | | | | | | | | | 245.0 | 246.5 | 0.01 | 1.12 | 0.02 | 82 | | |
| | | | | | | | | | 246.5 | 248.0 | 0.01 | 0.54 | <0.01 | 54 | | |
| | | | | | | | | | 248.0 | 249.5 | <0.01 | 0.27 | <0.01 | 48 | | |
| | | | | | | | | | 249.5 | 251.0 | 0.02 | 0.89 | <0.01 | 54 | | |
| | | | | | | | | | 251.0 | 252.0 | 0.01 | 1.58 | 0.04 | 76 | | |
| | | | | | | | | | 252.0 | 253.0 | 0.03 | 3.20 | 0.05 | 130 | | |
| | | | | | | | | | 253.0 | 254.0 | 0.02 | 2.25 | 0.04 | 115 | | |
| | | | | | | | | | 254.0 | 255.0 | 0.02 | 0.60 | <0.01 | 68 | | |
| | | | | | | | | | 255.0 | 256.0 | 0.02 | 0.15 | <0.01 | 58 | | |
| | | | | | | | | | 256.0 | 257.0 | 0.02 | 0.55 | <0.01 | 120 | | |
| | | | | | | | | | 257.0 | 258.0 | 0.02 | 2.55 | 0.04 | 245 | | |
| | | | | | | | | | 258.0 | 260.0 | 0.02 | 0.43 | <0.01 | 175 | | |
| | | | | | | | | | 260.0 | 262.0 | 0.02 | 0.67 | 0.02 | 255 | | |
| | | | | | | | | | 262.0 | 264.0 | 0.02 | 0.47 | 0.02 | 230 | | |
| | | | | | | | | | 264.0 | 266.0 | 0.02 | 1.06 | 0.02 | 175 | | |
| | | | | | | | | | 266.0 | 268.0 | 0.09 | 0.37 | <0.01 | 315 | | |
| | | | | | | | | | 268.0 | 270.0 | 0.05 | 0.12 | <0.01 | 260 | | |
| | | | | | | | | | 270.0 | 272.0 | 0.03 | 0.81 | 0.03 | 220 | | |
| | | | | | | | | | 272.0 | 274.0 | 0.02 | 1.10 | 0.05 | 185 | | |
| | | | | | | | | | 274.0 | 276.0 | 0.03 | 0.50 | 0.02 | 190 | | |
| | | | | | | | | | 276.0 | 278.0 | 0.03 | 0.50 | 0.02 | 160 | | |
| | | | | | | | | | 278.0 | 280.1 | 0.34 | 0.31 | <100 | 140 | | |

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 034



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 193.0 | 280.1 | mottled units are a mixture of light silicified material and dark schorl sections; sulfides common throughout as infilling late stage fractures, thin seams and large irregular masses; dominantly pyrrhotite-pentlandite with minor chalcopyrite; minor euhedral silvery sulfide; BCA 55-60°; ground conditions very good; many fractures are driller breaks; **251.0-257.5 m:** several concordant bands of massive sulfide 10-20 mm wide, mainly in dark gray altered mafic units; pyrrhotite-pentlandite (?); BCA 55°; **257.5-265.0 m:** sediments, light gray, intensely altered and hydrothermally fractured; sulfides (pyrrhotite-pentlandite) common as thin bedding conformable streaks and infilling anastomosing fracturing; **265.0--277.6 m:** as above but generally lesser sulfides; BCA erratic but generally 60°; ground conditions very good; **277.6-280.1 m:** intensely altered sediments in immediate hangingwall of serpentite body; fractured schorl and phlogopite rich sections mixed with light gray siliceous zones and ocassional egg sized lumps of ultramafic; interval strongly fractured with minor pug seams; minor pyrrhotite-pentlandite as aggregates and thin seams; contact with ultramafic below sharp 65° CA and talcy; | | | | | | | | | | | | | | | |
| 280.1 | 434.5 | **ULTRAMAFIC (serpentinite), variably mineralised:** 155 m wide intersection of altered ultramafic (serpentinised); pentlandite mineralisation is principally concentrated near the upper (280-333 m) contact zone and the lower contact zone (390-435 m); the middle section..... | 280.1 | 434.5 | 100 | 280.6 | 284.7 | 75 | | | | | | | | |
| | | | | | | 284.7 | 288.3 | 60 | | | | | | | | |
| | | | | | | 288.3 | 292.5 | 50 | | | | | | | | |
| | | | | | | 292.5 | 296.5 | 65 | | | | | | | | |
| | | | | | | 296.5 | 300.7 | 75 | | | | | | | | |
| | | | | | | 300.7 | 305.0 | 70 | | | | | | | | |

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 034



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 280.1 continued..... | 434.5 | contains only minor disseminated pentlandite and its margins are highly graphitic;<br>**280.1-280.9 m:** contact zone consisting of light gray altered sediments or silicified ultramafics, and dark gray-black soft serpentinite;<br>actual contact soft, talcose and crumbly; pentlandite common within late stage veins and irregular aggregates in dark serpentinite; core moderately competent;<br>**280.9-281.7 m:** dark gray-black serpentinite with semi-massive pentlandite,and pyrrhotite (?) as large irregular and interconnected masses;<br>**281.7-286.8 m:** black serpentinite with abundant coarse pentlandite as large masses and infilling thin irregular veinlets; lighter gray-green siliceous zones contain abundant magnetite;<br>core moderately competent; several rough irregular fracture surfaces coated with talc;<br>**286.8-290.0 m:** mottled light and dark gray siliceous altered ultramafics, cut by fine chlorite (?) filled veinlets; only trace sulfide to 288.3 m., then common/abundant pentlandite to end of interval; magnetite common; several rubbly pug zones; fracturing along irregular talcose joints;<br>**290.0-290.5 m:** black serpentinite with abundant coarse grained pentlandite masses (semi-massive);<br>**290.5-297.3 m:** mixed (mottled) soft black serpentinite and fine grained pale green siliceous ultramafic; lower section dominated by pale green silicate, coarser grained than above and with coarse felted appearance; magnetite abundant in patches; minor pentlandite in serpentinite as small patches and disseminated grains but less common in green siliceous rock, mainly as thin stringers in fine veinlets with chlorite (?);<br>core moderately competent;<br>**297.3-299.2 m:** coarse crystalline pale green | | | | | | | | 280.1 | 280.9 | 0.60 | 1.51 | 0.01 | 0.02 | | 0.04 |
| | | | | | | | | | 280.9 | 281.7 | 4.40 | 6.90 | 0.05 | 0.13 | | <0.01 |
| | | | | | | | | | 281.7 | 283.0 | 0.65 | 1.19 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 283.0 | 284.0 | 2.10 | 3.05 | 0.02 | 0.05 | | <0.01 |
| | | | | | | | | | 284.0 | 285.0 | 1.65 | 2.20 | 0.01 | 0.05 | | <0.01 |
| | | | | | | | | | 285.0 | 286.0 | 0.48 | 0.57 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 286.0 | 286.8 | 0.56 | 0.71 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 286.8 | 288.0 | 0.16 | 0.12 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 288.0 | 289.0 | 0.82 | 1.13 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 289.0 | 290.0 | 1.69 | 2.55 | 0.01 | 0.04 | | <0.01 |
| | | | | | | | | | 290.0 | 290.5 | 3.20 | 4.50 | 0.02 | 0.07 | | 0.07 |
| | | | | | | | | | 290.5 | 291.5 | 0.23 | 0.10 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 291.5 | 292.5 | 0.16 | 0.13 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 292.5 | 293.5 | 0.19 | 0.05 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 293.5 | 294.5 | 0.13 | 0.09 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 294.5 | 295.5 | 0.22 | 0.30 | <0.01 | <0.01 | | 0.12 |
| | | | | | | | | | 295.5 | 296.5 | 0.20 | 0.15 | <0.01 | <0.01 | | 0.11 |
| | | | | | | | | | 296.5 | 297.5 | 0.15 | <0.05 | <0.01 | <0.01 | | 0.11 |
| | | | | | | | | | 297.5 | 298.5 | 1.14 | 0.74 | <0.01 | <0.01 | | 1.02 |
| | | | | | | | | | 298.5 | 299.5 | 0.18 | 0.21 | <0.01 | <0.01 | | 0.03 |

**COMPANY: Allegiance Mining NL**
**PROJECT: Avebury**
**HOLE NUMBER: A 034**



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 280.1 continued..... | 434.5 | silicate, ocassionally bright green, mixed with pink coarsely crystalline silicate (axinite?); minor dark green talcose patches; rock is crumbly and appears porous but is quite heavy-epidote? minor disseminated pentlandite and another pinker sulfide, generally associated with talcose zones and in thin veinlets; core crumbly and grades into..... **299.2-302.0 m:** mottled pale green-gray silicates mixed with irregular masses soft green-black serpentinite; minor-common pentlandite as disseminations and irregular masses in dark serpentiniteand infilling late stage veinlets along with chloritic (?) material; core competent; **302.0-328.0 m:** massive dark green-black serpentinite with ocassional narrow light green silicate zones; variable amounts of pentlandite throughout but common-abundant in places: 302.0-308.5 m: abundant pentlandite; 310.5-314.0 m: common pentlandite; 323.5-328.0 m: common pentlandite; magnetite typically associated with pentlandite; core competent to 324.0 m., then number of broken zones with fractures commonly 45° CA; **328.0-339.5m: core is highly graphitic and very broken;** 331.2-331.9 m: graphitic serpentinite contains semi-massive pentlandite; 331.9-339.5 m: pentlandite steadily decreases down hole; magnetite common in thin veinlets and irregular masses; thin veinlets white silicate start to appear at 337.0 m, typically 40° CA; **339.5-385.0 m:** massive dark green-dark brown-black serpentinite cut by numerous 1-3 mm white veins which are soft and talcose or fibrous; generally 40° CA; | . | | | 305.0 | 309.6 | 75 | 299.5 | 300.5 | 0.26 | 0.46 | <0.01 | <0.01 | | 0.01 |
| | | | | | | 309.6 | 314.1 | 85 | 300.5 | 302.0 | 0.16 | 0.28 | <0.01 | <0.01 | | 0.03 |
| | | | | | | 314.1 | 318.6 | 95 | 302.0 | 303.0 | 0.21 | 1.45 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 318.6 | 323.3 | 95 | 303.0 | 304.0 | 0.03 | 1.94 | <0.01 | 0.02 | | <0.01 |
| | | | | | | 323.3 | 327.7 | 75 | 304.0 | 305.0 | 0.23 | 1.03 | <0.01 | 0.01 | | 0.01 |
| | | | | | | 327.7 | 331.7 | 50 | 305.0 | 306.0 | 0.59 | 2.30 | <0.01 | 0.04 | | 0.06 |
| | | | | | | | | | 306.0 | 307.0 | 0.64 | 2.95 | 0.01 | 0.04 | | 0.02 |
| | | | | | | | | | 307.0 | 308.0 | 0.42 | 2.15 | <0.01 | 0.03 | | <0.01 |
| | | | | | | | | | 308.0 | 309.0 | 0.19 | 1.06 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 309.0 | 310.0 | 0.13 | 0.54 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 310.0 | 311.0 | 0.15 | 0.66 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 311.0 | 312.0 | 0.50 | 1.81 | <0.01 | 0.05 | | 0.19 |
| | | | | | | | | | 312.0 | 313.0 | 0.34 | 1.39 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 313.0 | 314.0 | 0.49 | 2.25 | <0.01 | 0.03 | | <0.01 |
| | | | | | | | | | 314.0 | 315.0 | 0.20 | 0.84 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 315.0 | 316.0 | 0.21 | 0.75 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 316.0 | 317.0 | 0.36 | 1.63 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 317.0 | 318.0 | 0.35 | 1.30 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 318.0 | 319.0 | 0.42 | 1.51 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 319.0 | 320.0 | 0.23 | 0.98 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 320.0 | 321.0 | 0.44 | 2.15 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 321.0 | 322.0 | 0.15 | 0.35 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 322.0 | 323.0 | 0.18 | 1.07 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 323.0 | 324.0 | 0.24 | 1.51 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 324.0 | 325.0 | 0.28 | 1.93 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 325.0 | 326.0 | 0.65 | 2.30 | <0.01 | 0.03 | | <0.01 |
| | | | | | | | | | 326.0 | 327.0 | 1.06 | 2.60 | <0.01 | 0.03 | | <0.01 |
| | | | | | | | | | 327.0 | 328.0 | 0.30 | 4.10 | 0.02 | 0.02 | | <0.01 |
| | | | | | | 331.7 | 336.2 | 50 | 328.0 | 329.0 | 0.20 | 3.15 | 0.02 | 0.02 | | <0.01 |
| | | | | | | 336.2 | 340.3 | 40 | 329.0 | 330.0 | 0.24 | 2.80 | 0.02 | 0.02 | | <0.01 |
| | | | | | | | | | 330.0 | 331.3 | 0.71 | 2.35 | 0.01 | 0.03 | | 0.01 |
| | | | | | | | | | 331.3 | 332.0 | 1.65 | 9.55 | 0.05 | 0.08 | | <0.01 |
| | | | | | | | | | 332.0 | 333.0 | 0.39 | 2.40 | 0.02 | 0.02 | | <0.01 |
| | | | | | | 340.3 | 345.0 | 75 | 333.0 | 334.0 | 0.22 | 1.14 | 0.01 | 0.01 | | <0.01 |
| | | | | | | 345.0 | 349.6 | 85 | 334.0 | 335.0 | 0.44 | 2.15 | 0.01 | 0.02 | | <0.01 |
| | | | | | | 349.6 | 354.3 | 75 | 335.0 | 336.0 | 0.33 | 1.13 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 354.3 | 358.6 | 85 | 336.0 | 337.0 | 0.30 | 0.95 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 358.6 | 363.0 | 70 | 337.0 | 338.0 | 0.22 | 0.58 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 363.0 | 367.6 | 85 | 338.0 | 339.0 | 0.47 | 1.61 | 0.01 | 0.02 | | <0.01 |
| | | | | | | 367.6 | 372.0 | 80 | 339.0 | 340.0 | 0.41 | 1.10 | 0.01 | 0.01 | | <0.01 |

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 034



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 280.1 continued..... | 434.5 | magnetite is abundant, both disseminated in the white silicate veins and as large irregular masses throughout the serpentinite; these masses often cut the silicate veins (ie) magnetite development is very late stage; magnetite commonly has golden-amber sheen making it easy to confuse with pentlandite; minor pentlandite present as disseminated grainsand aggregates, generally closely associated with magnetite; ground conditions generally good (ie) core not broken; however, core is soft and weak; strong joint set perpendicular to white veins; shearing along white veins usually smears white amphibole into long fibrous greasy material; some hackly fracture surfaces coated in graphite; grades into..... **385.0-395.0 m:** dark green-dark brown-black serpentinite, similar to above but only rare thin white silicate veinlets; abundant magnetite and gradual increase in pentlandite down hole; pentlandite typically coarse grained and closely associated with magnetite masses; feature of unit is its very broken and graphitic nature-similar to unit on FW of north lens mineralisation (328.0-329.5 m) grades into..... **395.0-426.8 m:** dark green-black serpentinite with common-abundant pyrrhotite-pentlandite-magnetite; ocassional light gray mottled siliceous ultramafic zone, also carrying common pyrrhotite-pentlandite-magnetite; sulfides and magnetite are closely intergrown as irregular masses, streaks and veinlets; proportion of magnetite associated with sulfides decreases down unit; near top, approx. 1:1, near base 1:4; 418.5-426.8 m: dark serpentinite as above with abundant pyrrhotite-pentlandite ranging from fine disseminations to large irregular masses (5-10% sulfides); | | | | 372.0 | 376.4 | 45 | 341.0 | 342.0 | 0.38 | 0.39 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 376.4 | 380.8 | 75 | | | | | | | | |
| | | | | | | 380.8 | 385.4 | 85 | 343.0 | 344.0 | 0.29 | 0.28 | <0.01 | <0.01 | | 0.01 |
| | | | | | | | | | 345.0 | 346.0 | 0.21 | 0.21 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 347.0 | 348.0 | 0.20 | 0.19 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 349.0 | 350.0 | 0.21 | 0.25 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 351.0 | 352.0 | 0.20 | 0.23 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 353.0 | 354.0 | 0.20 | 0.15 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 355.0 | 356.0 | 0.26 | 0.21 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 357.0 | 358.0 | 0.19 | 0.12 | <0.01 | <0.01 | | <0.01 |
| | | | | | | 385.4 | 389.4 | 45 | | | | | | | | |
| | | | | | | 389.4 | 393.1 | 40 | 359.0 | 360.0 | 0.24 | 0.20 | <0.01 | <0.01 | | <0.01 |
| | | | | | | 393.1 | 397.1 | 30 | | | | | | | | |
| | | | | | | | | | 361.0 | 362.0 | 0.28 | 0.23 | <0.01 | <0.01 | | 0.01 |
| | | | | | | | | | 363.0 | 364.0 | 0.30 | 0.24 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 365.0 | 366.0 | 0.34 | 0.23 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 367.0 | 368.0 | 0.31 | 0.24 | <0.01 | 0.01 | | 0.01 |
| | | | | | | 397.1 | 401.8 | 70 | | | | | | | | |
| | | | | | | 401.8 | 406.6 | 75 | 369.0 | 370.0 | 0.24 | 0.21 | 0.01 | <0.01 | | <0.01 |
| | | | | | | 406.6 | 414.1 | 90 | | | | | | | | |
| | | | | | | 414.1 | 418.8 | 90 | 371.0 | 372.0 | 0.29 | 0.31 | <0.01 | 0.01 | | 0.02 |
| | | | | | | 418.8 | 423.6 | 85 | | | | | | | | |
| | | | | | | 423.6 | 428.0 | 75 | 373.0 | 374.0 | 0.24 | 0.35 | 0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 375.0 | 376.0 | 0.42 | 0.60 | <0.01 | 0.01 | | 0.03 |
| | | | | | | | | | 377.0 | 378.0 | 0.24 | 0.30 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 379.0 | 380.0 | 0.19 | 0.22 | <0.01 | <0.01 | | <0.01 |

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 034



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | %Co | % Zn | % As |
| 280.1 | 434.5 | **426.8-434.5 m:** zone of mixed dark green-black serpentinite and mottled light gray altered ultramafics; lighter colored siliceous zones strongly fractured and healed with thin streaks and patches softer dark green-black serpentinite;<br>pyrrhotite-pentlandite and magnetite are common-abundant, especially in the darker serpentinitic zones;<br>magnetite occurs closely associated with pyrrhotite- pentlandite and as streaks and large masses on its own;<br>pyrrhotite-pentlandite commonly (but not always) associated with magnetite as irregular patches and small disseminations; late stage pyrrhotite-pentlandite infills some fine veins which cut magnetite masses (ie) postdates magnetite;<br>narrow 50 mm pug zone at 432.0 m; basal 300 mm of unit very broken;<br>contact with underlying sediments marked by 20 mm pug zone; contact sharp 45° CA; | . | | | 428.0 | 432.5 | 90 | 381.0 | 382.0 | 0.27 | 0.43 | <0.01 | 0.01 | | <0.01 |
| | | | | | | 432.5 | 437.0 | 90 | | | | | | | | |
| | | | | | | | | | 383.0 | 384.0 | 0.16 | 0.25 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | 385.0 | 386.0 | 0.17 | 0.28 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | 386.0 | 387.0 | 0.25 | 0.56 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 387.0 | 388.0 | 0.20 | 0.46 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 388.0 | 389.0 | 0.21 | 0.41 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 389.0 | 390.0 | 0.44 | 0.89 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 390.0 | 391.0 | 0.21 | 0.47 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 391.0 | 392.0 | 0.34 | 0.88 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 392.0 | 393.0 | 0.38 | 1.13 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 393.0 | 394.0 | 0.58 | 1.52 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 394.0 | 395.0 | 0.58 | 1.45 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 395.0 | 396.0 | 0.54 | 1.35 | <0.01 | 0.02 | | 0.01 |
| | | | | | | | | | 396.0 | 397.0 | 0.62 | 2.10 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 397.0 | 398.0 | 0.32 | 1.07 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 398.0 | 399.0 | 0.43 | 1.42 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 399.0 | 400.0 | 0.26 | 0.81 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 400.0 | 401.0 | 0.25 | 0.79 | <0.01 | 0.01 | | <0.01 |
| 434.5 | 446.0 | **ALTERED SEDIMENTS:**<br>well bedded light brown-gray-white fine grained sediments, strongly silicified;<br>brown coloration possibly due to very fine dravite?<br>ocassional thin (1-3 mm) white quartz veins;<br>essentially no sulfides in sediments;<br>ocassional small grain in quartz veins;<br>core hard and moderately competent; most fracturing parallel to bedding or along quartz veins or along several joint sets at high angle to bedding; | 434.5 | 446.0 | 100 | 437.0 | 441.5 | 95 | 401.0 | 402.0 | 0.25 | 0.61 | <0.01 | <0.01 | | <0.01 |
| | | | | | | 441.5 | 446.0 | 50 | 402.0 | 403.0 | 0.27 | 1.34 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 403.0 | 404.0 | 0.24 | 0.96 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 404.0 | 405.0 | 0.25 | 0.71 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 405.0 | 406.0 | 0.33 | 1.00 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 406.0 | 407.0 | 0.21 | 1.12 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 407.0 | 408.0 | 0.21 | 1.73 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 408.0 | 409.0 | 0.21 | 1.80 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 409.0 | 410.0 | 0.23 | 1.96 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 410.0 | 411.0 | 0.28 | 1.80 | 0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 411.0 | 412.0 | 0.27 | 1.54 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 412.0 | 413.0 | 0.23 | 0.81 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 413.0 | 414.0 | 0.26 | 1.18 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 414.0 | 415.0 | 0.35 | 1.88 | <0.01 | 0.02 | | <0.01 |
| | | | | | | | | | 415.0 | 416.0 | 0.17 | 0.78 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 416.0 | 417.0 | 0.16 | 0.85 | 0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 417.0 | 418.0 | 0.18 | 0.82 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 418.0 | 419.0 | 0.43 | 2.70 | 0.02 | 0.03 | | <0.01 |
| | | | | | | | | | 419.0 | 420.0 | 0.43 | 3.70 | 0.03 | 0.04 | | <0.01 |

**COMPANY:** Allegiance Mining NL
**PROJECT:** Avebury
**HOLE NUMBER:** A 034



| Description | | | Core Recovery | | | RQD | | | Assays | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | % | From | To | % | From | To | % Ni | % S | % Cu | % Co | % Zn | % As |
| | | | | | | | | | 420.0 | 421.0 | 0.39 | 3.65 | 0.04 | 0.04 | | <0.01 |
| | | | | | | | | | 421.0 | 422.0 | 0.35 | 3.75 | 0.06 | 0.05 | | <0.01 |
| | | | | | | | | | 422.0 | 423.0 | 0.50 | 4.35 | 0.07 | 0.06 | | <0.01 |
| | | | | | | | | | 423.0 | 424.0 | 0.42 | 3.85 | 0.05 | 0.05 | | <0.01 |
| | | | | | | | | | 424.0 | 425.0 | 0.49 | 5.15 | 0.09 | 0.08 | | <0.01 |
| | | | | | | | | | 425.0 | 426.0 | 0.32 | 3.35 | 0.04 | 0.04 | | <0.01 |
| | | | | | | | | | 426.0 | 427.0 | 0.27 | 2.60 | 0.03 | 0.02 | | <0.01 |
| | | | | | | | | | 427.0 | 428.0 | 0.13 | 0.31 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 428.0 | 429.0 | 0.24 | 0.96 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 429.0 | 430.0 | 0.21 | 0.83 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 430.0 | 431.0 | 0.19 | 0.45 | <0.01 | 0.01 | | <0.01 |
| | | | | | | | | | 431.0 | 432.0 | 0.19 | 0.39 | <0.01 | <0.01 | | <0.01 |
| | | | | | | | | | 432.0 | 433.0 | 0.31 | 1.06 | <0.01 | 0.01 | | <0.01 |
| | | **END OF HOLE** | | | | | | | 433.0 | 434.5 | 0.26 | 1.79 | 0.01 | 0.02 | | <0.01 |

861067

# Central Mineralogical Services

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8 May 2001

Mr L.A. Newnham
Newnham Exploration & Mining Services
PO Box 183
EXETER TAS 7275

**REPORT NO. CMS 01/5/1**

| | |
|---|---|
| **YOUR REFERENCE:** | Letter 2.05.01 |
| **DATE RECEIVED:** | 3.05.01 |
| **SAMPLE NOS:** | AO34 @ 418.2m, 421.8m |
| **SUBMITTED BY:** | L..A. Newnham |
| **WORK REQUESTED:** | Mineragraphy |

for **H.W. Fander, M. Sc.**

# REPORT CMS 01/5/1

## DDH A034 at 418.2m, 421.8m

Two drill core slabs were received for mineragraphic study; polished sections were prepared and examined.

The host rock in each sample is a very dark, medium-grained serpentinite with fine-grained secondary magnetite (derived from the ferromagnesian minerals during serpentinisation). There is some chromite at ***421.8m***.

**418.2m**

The sulphides are major pyrrhotite and minor pentlandite, where the pyrrhotite occurs as shapeless masses enclosing pentlandite patches up to 1-2mm across.

Late-stage magnetite has veined and partly replaced the pyrrhotite and has more extensively replaced pentlandite on a very fine scale along cleavage planes (cp previous samples), and also peripherally.

There are traces of molybdenite (I) within the magnetite, and graphite occurs along sulphide margins.

Sulphide deposition postdated serpentinisation and was followed by replacive magnetite.

**421.8m**

The style of the mineralisation is the same as at ***418.2m*** but was much more extensive. There are larger semi-continuous patches of pyrrhotite containing grains of pentlandite from 0.1mm to 1-2mm – many are in the 0.2mm to 0.5mm range.

Late-stage magnetite was introduced selectively replacing pentlandite on a fine scale and veining/incipiently replacing the pyrrhotite.

The pentlandite is intergrown with ?mackinawite (FeS) on a very fine scale; this mineral can be an alteration-product of pentlandite, or can be replacive, probably related to the introduction of magnetite in this case.

The mineralisation is very similar to that described previously from this occurrence, though the late-stage magnetite phase is more marked, with resultant complications in terms of metallurgy.

CENTRAL MINERALOGICAL SERVICES
REPORT CMS 01/5/1 – 8 MAY 2001
NEWNHAM EXPLORATION & MINING SERVICES
(Mr L A Newnham)

861069

# APPENDIX 2

## EAST AVEBURY DRILL LOGS
## A030, A031, A032, A033

861070

| | | | |
|---|---|---|---|
| **hole no** | A030 | | |
| **final depth** | 393.1 | m | |
| **east** | 355,446.34 | AMG | |
| **north** | 5,357,673.93 | AMG | |
| **rl** | 2,180.36 | m | |
| **HQ** | 0.0m to 15.1m | | |
| **NQ** | 15.1m to 393.1m | | |
| **commenced** | 15-Jan-01 | | |
| **completed** | 23-Jan-01 | | |
| **logged by** | Mick McKeown | | |
| **drilled by** | Almac Pty Ltd | | |
| **analyses by** | Analabs Pty Ltd | | |

**downhole surveys**

| at | mag brg | AMG brg as read | AMG brg corrected | AMG brg as used | dip | comments |
|---|---|---|---|---|---|---|
| 0 | - | - | 180.5 | 180.5 | -45 | Collar bearing and dip are as provided by surveyor. |
| 25 | 170 | 183 | 180.5 | 180.5 | -45 | All downhole bearings and dips were surveyed using a downhole camera. |
| 50 | 171 | 184 | 181.5 | 180.5 | -45 | Down-hole bearings as read have been corrected for local magnetic error by subtracting |
| 100 | 170 | 183 | 180.5 | 180.5 | -43 | 2.5 degrees (determined by comparing the true collar bearing as determined by theodolite |
| 150 | 175 | 188 | 185.5 | 185.5 | -41.5 | survey with the first down-hole camera survey). |
| 200 | 175 | 188 | 185.5 | 185.5 | -40 | Obviously erratic down-hole bearings have been replaced by interpolation or |
| 250 | 176 | 189 | 186.5 | 186.5 | -38 | extrapolation to fit the general trend of bearing changes in the hole. |
| 300 | 303 | 316 | 313.5 | 186.5 | -37 | For more information regarding the protocol used to correct the bearings, refer to the |
| 350 | 60 | 73 | 70.5 | 186.5 | -36.5 | memo "Avebury project - down-hole surveys" (McKeown, 12 October 2000). |
| 385 | 172 | 185 | 182.5 | 186.5 | -36 | |

**COMMENTS**

Note that 2000m has been added to the actual RL.

Hole was stopped in serpentinite.

**SIGNIFICANT INTERSECTIONS**

| formation | comment | from m | to m | length m | Ni % | S % | Co ppm | Cu ppm | Pb ppm | Zn ppm | As ppm | Au ppb | Ag ppb | Pt ppb | Pd ppb |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cum | northern serpentinite | 291.8 | 393.1 | | | | | | | | | | | | |

861071

| A030 | at | bearing as used AMG | dip | from m | to m | down-hole interval | horizontal interval m | vertical interval m | east shift | north shift | easting AMG m | northing AMG m | RL m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLE PATH | | | | | | | | | | | | | |
| | | | | | collar | | | | | | 355,446.3 | 5,357,673.9 | 2,180.4 |
| | 0.0 | 180.5 | -45.0 | 0.0 | 12.5 | 12.5 | 8.8 | -8.8 | -0.1 | -8.8 | 355,446.3 | 5,357,665.1 | 2,171.5 |
| | 25.0 | 180.5 | -45.0 | 12.5 | 37.5 | 25.0 | 17.7 | -17.7 | -0.2 | -17.7 | 355,446.1 | 5,357,647.4 | 2,153.8 |
| | 50.0 | 180.5 | -45.0 | 37.5 | 75.0 | 37.5 | 26.5 | -26.5 | -0.2 | -26.5 | 355,445.9 | 5,357,620.9 | 2,127.3 |
| | 100.0 | 180.5 | -43.0 | 75.0 | 125.0 | 50.0 | 36.6 | -34.1 | -0.3 | -36.6 | 355,445.6 | 5,357,584.3 | 2,093.2 |
| | 150.0 | 185.5 | -41.5 | 125.0 | 175.0 | 50.0 | 37.4 | -33.1 | -3.6 | -37.3 | 355,442.0 | 5,357,547.1 | 2,060.1 |
| | 200.0 | 185.5 | -40.0 | 175.0 | 225.0 | 50.0 | 38.3 | -32.1 | -3.7 | -38.1 | 355,438.3 | 5,357,508.9 | 2,028.0 |
| | 250.0 | 186.5 | -38.0 | 225.0 | 275.0 | 50.0 | 39.4 | -30.8 | -4.5 | -39.1 | 355,433.8 | 5,357,469.8 | 1,997.2 |
| | 300.0 | 186.5 | -37.0 | 275.0 | 325.0 | 50.0 | 39.9 | -30.1 | -4.5 | -39.7 | 355,429.3 | 5,357,430.1 | 1,967.1 |
| | 350.0 | 186.5 | -36.5 | 325.0 | 367.5 | 42.5 | 34.2 | -25.3 | -3.9 | -33.9 | 355,425.4 | 5,357,396.2 | 1,941.8 |
| | 385.0 | 186.5 | -36.0 | 367.5 | 393.1 | 25.6 | 20.7 | -15.0 | -2.3 | -20.6 | 355,423.1 | 5,357,375.6 | 1,926.8 |
| check sums and differences | | | | | | 393.1 | 299.6 | -253.6 | -23.2 | -298.3 | -23.2 | -298.3 | -253.6 |
| northern serpentinite contact | | | | | 291.98 | | | | | | 355,432.3 | 5,357,456.3 | 1,987.0 |
| hole stopped in serpentinite | | | | | | | | | | | | | |

861072

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 11.40 | **VOLCANICLASTIC AND SILTSTONE AND MUCH LESSER CLAY**<br><br>Extremely weathered grey fine grained volcaniclastic and siltstone and much lesser clay; with common ironstaining on joints and fractures.<br><br>BCA is obscure.<br><br>The interval is extremely broken to rubbly.<br><br>The contact with the next interval is gradational (weathering). | | | | | | | | | |
| 11.40 | 13.30 | **VOLCANICLASTIC AND SILTSTONE**<br><br>Slightly weathered grey and green-grey fine grained volcaniclastic and siltstone with common ironstaining on joints, minor actinolite as stringers and patches.<br><br>BCA is obscure.<br><br>The interval is broken to extremely broken.<br><br>The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 13.30 | 16.05 | **VOLCANICLASTIC AND SILTSTONE AND MUCH LESSER CHERT**<br><br>Interbedded grey and green-grey volcaniclastic and siltstone and much lesser grey-green brecciated chert; with sparse actinolite interstitial to chert breccia and as stringers, sparse quartz as veinlets, sparse ironstaining on joints.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 16.05 | 17.31 | **VOLCANICLASTIC AND SILTSTONE AND MUCH LESSER CHERT**<br><br>As between 13.30m and 16.65m but extremely broken and with common ironstaining on joints and fractures.<br><br>BCA is obscure.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |

861073

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 17.31 | 51.94 | **VOLCANICLASTIC AND MUCH LESSER CHERT** | | | | | | | | | |
| | | Green-grey fine grained volcaniclastic and much lesser chert as bands; with minor actinolite pervasive throughout and as stringers, veinlets, veins and bands, sparse phlogopite pervasive and as stringers associated with actinolite, sparse quartz as stringers, sparse pyrrhotite as blebs and stringers associated with actinolite; actinolite and phlogopite also occur as lace veining to brecciated intervals up to 20cm long. | | | | | | | | | |
| | | BCA at 17.5m = 70 degrees<br>BCA at 24.2m = 70 degrees<br>BCA at 28.0m = 70 degrees<br>BCA at 33.7m = 65 degrees<br>BCA at 38.5m = 65 degrees<br>BCA at 42.2m = 65 degrees<br>BCA at 47.7m = 70 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 51.94 | 70.12 | **SILTSTONE, CHERT AND VOLCANICLASTIC** | | | | | | | | | |
| | | Interbedded dark grey siltstone and mottled brown and grey chert and grey and brown-grey fine to medium grained volcaniclastic; with sparse quartz as stringers, lace veining and veinlets, trace disseminated pyrrhotite, sparse pyrite as stringers and as crystals on joints, sparse pervasive phlogopite. | | | | | | | | | |
| | | 63.37m to 63.45m: breccia with clay-chlorite matrix, at 45 degrees to the core axis: fault | | | | | | | | | |
| | | Bedding in the chert is ruptured in part.<br>BCA at 54.4m = 45 degrees<br>BCA at 59.4m = 60 degrees<br>BCA at 65.6m = 45 degrees<br>BCA at 67.4m = 50 degrees<br>BCA at 67.5m = 55 degrees | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 70.12 | 76.05 | **CHERT AND LESSER VOLCANICLASTIC** | | | | | | | | | |
| | | Interbedded mottled brown and grey chert and much lesser green-grey medium grained volcaniclastic; with minor actinolite pervasive in the volcaniclastic and as stringers and patches and interstitial to chert breccia, trace crystalline pyrite on joints, trace quartz as | | | | | | | | | |

861074

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | stringers, trace sphalerite associated with actinolite and also in quartz veinlets with trace galena; the interval becomes more altered towards 76.05m. | | | | | | | | | |
| | | Bedding in the chert is ruptured and BCA is obscure. | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| **76.05** | **77.30** | **ACTINOLITE-EPIDOTE-QUARTZ SKARN** | | | | | | | | | |
| | | Mottled light and dark green and white actinolite-epidote-quartz skarn with minor included brown and cream chert as small fragments up to about 2cm long near margins. | | | | | | | | | |
| | | The interval has a brecciated fabric. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| **77.30** | **79.03** | **VOLCANICLASTIC** | | | | | | | | | |
| | | Mottled green (actinolite) and brown-grey medium grained volcaniclastic with common actinolite pervasive throughout and as stringers, trace pyrrhotite as stringers, the brown colouration may be due to the presence of pervasive phlogopite. | | | | | | | | | |
| | | BCA at 77.7m = 55 degrees | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **79.03** | **81.45** | **AXINITE-ACTINOLITE-QUARTZ-EPIDOTE SKARN** | | | | | | | | | |
| | | Banded semi-massive crystalline vuggy axinite-actinolite-quartz and lesser epidote skarn with sparse included remnant fragments of chert and medium grained volcaniclastic, fragments up to 10cm across. | | | | | | | | | |
| | | BCA at 81.0m = 85 degrees | | | | | | | | | |
| | | The interval is waterworn: vuggy and slightly puggy in part. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |

861075

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is gradational (alteration). | | | | | | | | | |
| **81.45** | **89.17** | **LIMESTONE**<br><br>Banded light and dark limestone with abundant calcite as stringers, sparse actinolite replacing some bands near start of the interval, sparse sphalerite and galena as fine flecks associated with calcite veinlets near start of the interval.<br><br>BCA at 81.6m = 70 degrees<br>BCA at 84.6m = 70 degrees<br>BCA at 86.9m = 85 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (alteration). | | | | | | | | | |
| **89.17** | **91.97** | **EPIDOTE-QUARTZ-GARNET SKARN**<br><br>Massive light green epidote-quartz and lesser brown garnet skarn with sparse actinolite as patches and narrow bands, sparse calcite as veinlets with trace sphalerite and galena.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| **91.97** | **93.32** | **EPIDOTE-QUARTZ-GARNET SKARN**<br><br>As between 89.17m and 91.97m but with garnet more common than epidote and quartz and sparse schorl as flecks and small patches.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| **93.32** | **95.39** | **EPIDOTE-QUARTZ-GARNET SKARN**<br><br>As between 89.17m and 91.97m plus sparse magnetite as flecks and stringers and brecciated remnant chert fragments up to 2cm across in part.<br><br>BCA is obscure.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |

861076

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 95.39 | 95.66 | **ACTINOLITE-MAGNETITE-QUARTZ SKARN** | | | | | | | | | |
| | | Actinolite-magnetite-quartz skarn with an hydraulically brecciated fabric; with trace chalcopyrite as fine flecks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 95.66 | 96.03 | **EPIDOTE-QUARTZ-GARNET SKARN** | | | | | | | | | |
| | | As between 91.97m and 93.32m. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 96.03 | 96.64 | **ACTINOLITE-MAGNETITE-QUARTZ SKARN** | | | | | | | | | |
| | | As between 95.39m and 95.66m but with less quartz and with sparse calcite as flecks. | | | | | | | | | |
| | | BCA at 96.5m = 85 degrees. | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 96.64 | 98.77 | **EPIDOTE-QUARTZ-GARNET SKARN** | | | | | | | | | |
| | | As between 89.17m and 91.97m. | | | | | | | | | |
| | | BCA at 98.5m = 65 degrees (garnet banding) | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 98.77 | 99.83 | **ACTINOLITE-MAGNETITE-QUARTZ SKARN** | | | | | | | | | |
| | | As between 96.03m and 96.64m. | | | | | | | | | |

861077

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| **99.83** | **100.55** | **ACTINOLITE-EPIDOTE SKARN** | | | | | | | | | |
| | | Banded light and dark green actinolite-epidote skarn with sparse quartz as stringers. | | | | | | | | | |
| | | BCA at 100.4m = 75 degrees | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| **100.55** | **106.96** | **VOLCANICLASTIC AND MUCH LESSER CHERT** | | | | | | | | | |
| | | Interbedded brown (phlogopite) and mottled green (actinolite) and green-grey fine to medium grained volcaniclastic and much lesser brown and grey chert; with sparse calcite as veinlets and veins, trace sphalerite associated with calcite, common actinolite pervasive in the volcaniclastic in part and as stringers and small patches, common phlogopite pervasive in volcaniclastic in part, trace pyrite as flecks, trace crystalline pyrite on joints, trace wad? on joints. | | | | | | | | | |
| | | The volcaniclastic is a crystal tuff in part, for example, near 104.4m. | | | | | | | | | |
| | | BCA at 100.8m = 45 degrees<br>BCA at 101.1m = 75 degrees<br>BCA at 103.1m = 55 to 70 degrees<br>BCA at 104.7m = 65 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **106.96** | **109.50** | **CHERT, VOLCANICLASTIC AND SKARN** | | | | | | | | | |
| | | Intermixed light grey, dark grey and black chert, brown fine to medium grained volcaniclastic and green and white actinolite skarn.; with sparse quartz and calcite as stringers and veinlets, minor actinolite as stringers and veinlets in the chert and volcaniclastic, trace disseminated pyrite. | | | | | | | | | |
| | | Bedding is ruptured and the interval has an hydraulically brecciated fabric; BCA is obscure. | | | | | | | | | |

861078

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (alteration). | | | | | | | | | |
| 109.50 | 111.50 | **ACTINOLITE SKARN** | | | | | | | | | |
| | | Massive dark green actinolite skarn with common remnant white, cream and grey chert as ragged fragments, sparse calcite as stringers and veinlets, minor schorl as diffuse flecks and small patches, sparse axinite as stringers and veinlets. | | | | | | | | | |
| | | The interval has a brecciated fabric. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 111.50 | 116.03 | **EPIDOTE-GARNET-QUARTZ SKARN** | | | | | | | | | |
| | | Massive epidote-garnet-quartz skarn, banded in part; with sparse calcite as stringers, sparse actinolite as flecks and ragged small patches. | | | | | | | | | |
| | | The interval has an oolitic texture in part, for example, near 114.6m. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken, slightly puggy in part. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 116.03 | 117.00 | **CHERT** | | | | | | | | | |
| | | Banded grey, cream and grey-green chert with common actinolite as stringers, trace quartz and calcite as stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 117.00 | 118.64 | **EPIDOTE-MAGNETITE-GARNET SKARN** | | | | | | | | | |
| | | Green, black and brown epidote-magnetite-garnet skarn with sparse calcite and quartz as stringers, sparse pyrite as flecks associated with calcite, minor actinolite as stringers | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | and patches, trace crystalline pyrite on joints.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 118.64 | 121.72 | **ACTINOLITE SKARN**<br><br>Massive dark green actinolite skarn with common epidote as narrow bands and patches, sparse calcite and quartz as stringers and veinlets, trace magnetite as disseminations, sparse schorl as diffuse small patches.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 121.72 | 124.87 | **QUARTZ-EPIDOTE SKARN**<br><br>Massive light green quartz-epidote skarn with minor actinolite as diffuse small patches, trace brown garnet, sparse calcite and quartz as stringers and veinlets.<br><br>BCA is obscure.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 124.87 | 133.14 | **VOLCANICLASTIC AND CHERT**<br><br>Intermixed green (actinolite) fine to medium grained volcaniclastic and white and brown chert; with sparse incipient axinite in some chert bands, sparse calcite and quartz as stringers, sparse actinolite as stringers and small patches and pervasive in the volcaniclastic, sparse epidote as patches.<br><br>The chert is brecciated and skarnised.<br><br>BCA at 127.7m = 75 degrees<br><br>The interval is broken throughout and extremely broken between 131.35m and 133.14m.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |

861080

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 133.14 | 146.46 | **SILTSTONE AND CHERT AND LESSER VOLCANICLASTIC** | | | | | | | | | |
| | | Interbedded dark grey siltstone, brown and cream chert and lesser dark grey, brown (phlogopite) and green (actinolite) fine grained volcaniclastic; with common actinolite pervasive in the volcaniclastic in part, as matrix to brecciated chert and as stringers, sparse quartz and calcite as stringers, trace schorl associated with quartz, trace epidote as veinlets, trace pyrrhotite and epidote? as veinlets, sparse phlogopite pervasive in volcaniclastic in part, trace clay along joints. | | | | | | | | | |
| | | Bedding in the chert is ruptured and the chert is brecciated in part. | | | | | | | | | |
| | | BCA at 134.6m = 75 degrees<br>BCA at 140.6m = 50 degrees<br>BCA at 140.86m = 55 degrees | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 146.46 | 183.88 | **VOLCANICLASTIC AND MUCH LESSER SILTSTONE** | | | | | | | | | |
| | | Interbedded light grey, dark grey and brown-grey fine to medium grained volcaniclastic and much lesser siltstone; with sparse epidote as stringers and bands near start of the interval, sparse quartz as stringers and blebs, sparse actinolite as veinlets and veins, trace pyrrhotite and pyrite as fine flecks and crystals associated with actinolite, trace grey pug in some joints, sparse phlogopite pervasive in some bands in volcaniclastic. | | | | | | | | | |
| | | Bedding is somewhat indistinct but<br>BCA at 173.8m = 65 degrees<br>BCA at 179.6m = 70 degrees | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 183.88 | 186.69 | **CHERTY VOLCANICLASTIC AND CHERT** | | | | | | | | | |
| | | Intermixed brown (phlogopite) and grey cherty fine grained volcaniclastic and chert; with sparse quartz as stringers and veinlets, minor actinolite as stringers, narrow bands and patches, sparse phlogopite pervasive in part. | | | | | | | | | |
| | | Bedding in the chert is ruptured and the chert is brecciated in part; BCA is obscure. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |

861081

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 186.69 | 188.40 | **CHERT AND ACTINOLITE ROCK**<br><br>Intermixed grey and white brecciated chert and green actinolite rock; chert with abundant interstitial actinolite; with sparse quartz as stingers and veinlets, sparse schorl as flecks and small patches; this is a very altered interval.<br><br>Bedding in the chert is ruptures and BCA is obscure.<br><br>The interval is very broken.<br><br>The contact with the next interval is sharp at 40 degrees to the core axis. | | | | | | | | | |
| 188.40 | 190.90 | **BRECCIA: FAULT**<br><br>Mottled grey and green-grey chert breccia and brecciated chert; with common interstitial grey pug, sparse quartz as stringers and lace veining.<br><br>BCA is obscure.<br><br>The interval is broken to rubbly and puggy.<br><br>The contact with the next interval is sharp at 45 degrees to the core axis. | | | | | | | | | |
| 190.90 | 206.27 | **CHERT AND CHERTY SILTSTONE AND LESSER VOLCANICLASTIC**<br><br>Interbedded grey, mauve, pink-cream and green chert and cherty siltstone and lesser grey and green-grey volcaniclastic; with sparse actinolite as stringers, narrow bands and interstitial to brecciated chert, sparse chalcopyrite and pyrrhotite as fine flecks associated with actinolite, trace quartz and calcite as stringers, trace crystalline pyrite on joints.<br><br>Bedding is ruptured and the chert is brecciated in part but<br>BCA at 191.6m = 70 degrees<br>BCA at 195.3m = 80 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 206.27 | 210.65 | **CHERTY VOLCANICLASTIC**<br><br>Dark brown (phlogopite)-grey and dark grey cherty fine grained volcaniclastic; with common pervasive phlogopite, minor actinolite as stringers and patches, sparse quartz as stringers and blebs.<br><br>The interval is microfaulted. | | | | | | | | | |

861082

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 210.65 | 230.02 | **VOLCANICLASTIC AND MUCH LESSER SILTSTONE** | | | | | | | | | |
| | | Dark grey fine grained volcaniclastic and much lesser siltstone; with sparse actinolite as stringers and narrow bands, trace quartz as blebs and stringers. | | | | | | | | | |
| | | Bedding is ruptured in part but<br>BCA at 213.2m = 65 degrees<br>BCA at 213.4m = 50 degrees<br>BCA at 219.7m = 60 degrees<br>BCA at 226.3m = 45 to 55 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 230.02 | 263.86 | **CHERT, VOLCANICLASTIC AND ACTINOLITE ROCK** | | | | | | | | | |
| | | Interbedded brown, cream and grey chert and dark brown-black fine grained volcaniclastic and dark green actinolite rock; the chert is brecciated with abundant interstitial actinolite, tending to actinolite rock; with trace quartz as stringers, sparse actinolite as stringers and bands in the volcaniclastic, trace schorl as flecks. | | | | | | | | | |
| | | 241.42m to 241.58m: fine grained chert breccia with green pug; VCA = 60 degrees: fault. | | | | | | | | | |
| | | BCA at 247.5m = 55 degrees<br>BCA at 253.3m = 55 degrees | | | | | | | | | |
| | | The interval is generally unbroken to broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 263.86 | 291.98 | **VOLCANICLASTIC** | | | | | | | | | |
| | | Mottled green highly actinolitised fine to medium grained volcaniclastic with sparse phlogopite? pervasive in part, abundant pervasive actinolite, trace crystalline pyrite on joints, sparse schorl as stringers and veinlets, common irregularly shaped cream-white diopsidic? patches up to 30cm long and veins, trace epidote associated with diopside? as stringers, trace sulphides associated with diopside as fine flecks. | | | | | | | | | |

861083

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The diopside? patches contain some brecciated rock fragments. | | | | | | | | | |
| | | BCA at 277.3m = 65 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 70 degrees to the core axis. | | | | | | | | | |
| **291.98** | **297.03** | SERPENTINITE-SILICATE-MAGNETITE ROCK | | | | | | | | | |
| | | Mottled black (serpentinite and magnetite) and cream-green (silicate) serpentinite-silicate-magnetite rock, the magnetite occurs as stringers and small patches; with trace pentlandite as flecks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **297.03** | **301.90** | **DARK SERPENTINITE AND MUCH LESSER LIGHT SERPENTINITE** | | | | | | | | | |
| | | Slightly mottled black and very dark grey-brown serpentinite and much lesser light green serpentinite-magnetite as ragged small inclusions?; with common magnetite as flecks and stringers, trace pentlandite as flecks associated with serpentinite-magnetite inclusions. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 70 degrees to the core axis. | | | | | | | | | |
| **301.90** | **304.09** | **INTERMIXED DARK SERPENTINITE AND FAULT BRECCIA** | | | | | | | | | |
| | | 301.90m to 302.45m: serpentinite breccia in serpentinite matrix; VCA = 70 degrees: fault<br>302.45m to 303.05m: massive black serpentinite with common light green serpentinite inclusions, minor magnetite as flecks and stringers<br>303.05m to 303.11m: serpentinite breccia in serpentinite matrix; VCA = 75 degrees: fault<br>303.11m to 304.03m: massive black serpentinite with common light green serpentinite inclusions, minor magnetite as flecks and stringers<br>304.03m to 304.09m: black green and white serpentinite, brecciated; VCA = 75 degrees: vein | | | | | | | | | |

861084

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is generally unbroken (serpentinite) to rubbly (faults) | | | | | | | | | |
| | | The contact with the next interval is sharp at 75 degrees to the core axis. | | | | | | | | | |
| 304.09 | 319.53 | **DARK SERPENTINITE** | | | | | | | | | |
| | | Massive black serpentinite with common irregularly shaped inclusions of light green serpentinite up to about 2cm across.; with trace pentlandite as rare fine flecks, sparse to minor cream serpentine as stringers, veinlets and veins, minor magnetite as flecks and stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 319.53 | 337.50 | **LIGHT AND DARK SERPENTINITE** | | | | | | | | | |
| | | Very mottled light and dark green serpentinite with slush fabric?; with sparse magnetite as flecks and stringers, trace white serpentine as stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 337.50 | 358.93 | **DARK SERPENTINITE** | | | | | | | | | |
| | | Massive brown serpentinite with abundant light and dark green serpentinite as ragged inclusions up to 2cm across; with sparse magnetite as flecks and stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 358.93 | 370.79 | **DARK SERPENTINITE** | | | | | | | | | |
| | | As between 337.50m and 358.93m plus sparse white serpentine as stringers, veinlets and rims to some serpentinite inclusions, sparse magnetite as flecks and stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |

861085

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A030

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is generally unbroken but is broken in part near white serpentine veinlets. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **370.79** | **390.43** | **DARK SERPENTINITE AND MUCH LESSER LIGHT SERPENTINITE** | | | | | | | | | |
| | | Intermixed rock as between 358.93m and 370.79m and much lesser light green serpentinite as patches up to about half a meter long; with sparse magnetite as flecks, sparse white serpentine as stringers and veinlets. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken with occasional rubble due to dropped core, for example, near 386m. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **390.43** | **393.10** | **LIGHT SERPENTINITE** | | | | | | | | | |
| | | Mottled mid to light green hydraulically? brecciated serpentinite with sparse to minor magnetite as flecks and stringers and interstitial to brecciated parts, minor puggy chrysotilic serpentine as stringers, veinlets and veins. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken to extremely broken (near the chrysotilic veinlets). | | | | | | | | | |
| | | **END OF HOLE AT 393.1m** | | | | | | | | | |

861086

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **hole no** | A031 | | | **downhole surveys** | | | | | | |
| | | | | **at** | **mag brg** | **AMG brg as read** | **AMG brg corrected** | **AMG brg as used** | **dip** | |
| **final depth** | 451.3 | | m | | | | | | | |
| | | | | 0 | - | - | 179 | 179 | -45.5 | Collar bearing and dip are as provided by surveyor. |
| **east** | 355,501.59 | | AMG | 25 | 171 | 184 | 179 | 179 | -46.5 | All downhole bearings and dips were surveyed using a downhole camera. |
| **north** | 5,357,595.76 | | AMG | 58.5 | 171 | 184 | 179 | 179 | -46.5 | |
| **rl** | 2,178.42 | | m | 100 | 173 | 186 | 181 | 181 | -45 | |
| | | | | 150 | 174 | 187 | 182 | 182 | -43 | |
| **tricone** | 0.0m to 9.0m | | | 200 | 183 | 196 | 191 | 183 | -41 | Obviously erratic down-hole bearings have been replaced by interpolation or |
| **HQ** | 9.0m to 25.5m | | | 253 | 188 | 201 | 196 | 184 | -39 | extrapolation to fit the general trend of bearing changes in the hole. |
| **NQ** | 25.5m to 451.3m | | | 300 | 180 | 193 | 188 | 185 | -38 | For more information regarding the protocol used to correct the bearings, refer to the |
| | | | | 350 | 182 | 195 | 190 | 186 | -37 | memo "Avebury project - down-hole surveys" (McKeown, 12 October 2000). |
| **commenced** | | 24-Jan-01 | | 400 | 179 | 192 | 187 | 187 | -35 | |
| **completed** | | 9-Feb-01 | | 450 | 182 | 195 | 190 | 188 | -33.5 | |
| **logged by** | Mick McKeown | | | | | | | | | |
| **drilled by** | Almac Pty Ltd | | | | | | | | | |
| **analyses by** | Analabs Pty Ltd | | | | | | | | | |

**COMMENTS**
Note that 2000m has been added to the actual RL.

**SIGNIFICANT INTERSECTIONS**

| **formation** | **comment** | **from m** | **to m** | **length m** | **Ni %** | **S %** | **Co ppm** | **Cu ppm** | **Pb ppm** | **Zn ppm** | **As ppm** | **Au ppb** | **Ag ppb** | **Pt ppb** | **Pd ppb** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cum | serpentinite | 256.39 | 305.71 | 49.32 | | | | | | | | | | | |

861087

| A031 | at | bearing as used AMG | dip | from m | to m | down-hole interval | horizontal interval m | vertical interval m | east shift | north shift | easting AMG m | northing AMG m | RL m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **HOLE PATH** | | | | | | | | | | | | | |
| | | | | | collar | | | | | | 355,501.6 | 5,357,595.8 | 2,178.4 |
| | 0.0 | 179 | -45.5 | 0.0 | 12.5 | 12.5 | 8.8 | -8.9 | 0.2 | -8.8 | 355,501.7 | 5,357,587.0 | 2,169.5 |
| | 25.0 | 179 | -46.5 | 12.5 | 41.8 | 29.3 | 20.1 | -21.2 | 0.4 | -20.1 | 355,502.1 | 5,357,566.9 | 2,148.3 |
| | 58.5 | 179 | -46.5 | 41.8 | 79.3 | 37.5 | 25.8 | -27.2 | 0.5 | -25.8 | 355,502.5 | 5,357,541.1 | 2,121.1 |
| | 100.0 | 181 | -45.0 | 79.3 | 125.0 | 45.8 | 32.4 | -32.4 | -0.6 | -32.3 | 355,502.0 | 5,357,508.7 | 2,088.7 |
| | 150.0 | 182 | -43.0 | 125.0 | 175.0 | 50.0 | 36.6 | -34.1 | -1.3 | -36.5 | 355,500.7 | 5,357,472.2 | 2,054.6 |
| | 200.0 | 183 | -41.0 | 175.0 | 226.5 | 51.5 | 38.9 | -33.8 | -2.0 | -38.8 | 355,498.7 | 5,357,433.4 | 2,020.8 |
| | 253.0 | 184 | -39.0 | 226.5 | 276.5 | 50.0 | 38.9 | -31.5 | -2.7 | -38.8 | 355,496.0 | 5,357,394.6 | 1,989.4 |
| | 300.0 | 185 | -38.0 | 276.5 | 325.0 | 48.5 | 38.2 | -29.9 | -3.3 | -38.1 | 355,492.6 | 5,357,356.5 | 1,959.5 |
| | 350.0 | 186 | -37.0 | 325.0 | 375.0 | 50.0 | 39.9 | -30.1 | -4.2 | -39.7 | 355,488.5 | 5,357,316.8 | 1,929.4 |
| | 400.0 | 187 | -35.0 | 375.0 | 425.0 | 50.0 | 41.0 | -28.7 | -5.0 | -40.7 | 355,483.5 | 5,357,276.2 | 1,900.8 |
| | 450.0 | 188 | -33.5 | 425.0 | 451.3 | 26.3 | 21.9 | -14.5 | -3.1 | -21.7 | 355,480.4 | 5,357,254.4 | 1,886.2 |
| check sums and differences | | | | | | 451.3 | 342.4 | -292.2 | -21.2 | -341.3 | -21.2 | -341.3 | -292.2 |
| **northern serpentinite contact** | | | | | **256.39** | | | | | | **355,497.0** | **5,357,410.2** | **2,002.0** |
| **southern serpentinite contact** | | | | | **305.71** | | | | | | **355,494.0** | **5,357,371.7** | **1,971.4** |

861088

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 9.00 | triconed, no recovery | | | | | | | | | |
| 9.00 | 10.50 | **CLAY** | | | | | | | | | |
| | | Tan clay. | | | | | | | | | |
| | | Driller reported 1m core loss at 10.5m. | | | | | | | | | |
| | | BCA obscure. | | | | | | | | | |
| | | The interval is puggy. | | | | | | | | | |
| | | The contact with the next interval is gradational (weathering). | | | | | | | | | |
| 10.50 | 14.30 | **CLAY AND CLAYSTONE AND MUCH LESSER EPIDOTE ROCK** | | | | | | | | | |
| | | Intermixed pale brown clay and claystone (after rock) and much lesser green epidote? rock as fragments. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is puggy to rubbly. | | | | | | | | | |
| 14.30 | 23.50 | **MAGNETITE SKARN AND SKARNISED CHERT** | | | | | | | | | |
| | | Interlayered magnetite skarn and skarnised chert: mottled dark green and green-cream altered rock with abundant magnetite as disseminations, stringers and patches, abundant actinolite interstitial to (hydraulically?) brecciated rock and as stringers; generally mottled green, pink (axinite?)-grey and brown-grey chert with minor to abundant actinolite interstitial to (hydraulically?) brecciated rock and as stringers, common white medium hard silicate as stringers and veinlets, trace chlorite as flecks and stringers. | | | | | | | | | |
| | | Magnetic susceptibility, measured with a Scintrex SM5 meter, ranged up to about 60. | | | | | | | | | |
| | | The interval has a brecciated fabric and BCA is irregular. | | | | | | | | | |
| | | The interval is very broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| 23.50 | 36.97 | **CHERT AND HORNFELS (VOLCANICLASTIC AND SILTSTONE)** | | | | | | | | | |
| | | Intermixed grey, green-grey, brown and pink-brown chert and grey, green and brown fine to medium grained hornfels (volcaniclastic and siltstone); with sparse quartz as stringers, sparse pyrite as disseminations and stringers, trace limonite on joints. | | | | | | | | | |

861089

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Generally, bedding is ruptured and BCA is obscure or irregular but is typically high and BCA at 36.0m = 70 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 36.97 | 41.18 | **HORNFELS (VOLCANICLASTIC)** | | | | | | | | | |
| | | Dark grey to black fine to medium grained hornfels (volcaniclastic) with sparse quartz as stringers, sparse actinolite as stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithological). | | | | | | | | | |
| 41.18 | 45.66 | **BRECCIATED CHERT** | | | | | | | | | |
| | | Mottled cream, green, grey, dark brown and light khaki brecciated chert with sparse quartz as stringers and lace veining; this is a very altered rock, an incipiently skarnised chert? | | | | | | | | | |
| | | BCA at 41.3m = 70 to 80 degrees | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 60 degrees to the core axis. | | | | | | | | | |
| 45.66 | 48.43 | **HORNFELS (SILTSTONE AND VOLCANICLASTIC)** | | | | | | | | | |
| | | Brown (phlogopite), green (actinolite) and grey fine to medium grained hornfels (siltstone and volcaniclastic) with minor phlogopite pervasive in part, minor actinolite pervasive in part and as stringers, sparse quartz as stringers. | | | | | | | | | |
| | | BCA at 47.2m = 60 degrees | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithological). | | | | | | | | | |

861090

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 48.43 | 52.54 | **BRECCIATED SKARNISED CHERT AND MUCH LESSER CHERT**<br><br>Mottled light and dark green, cream and grey generally brecciated skarnised chert and much lesser remnant bedded chert (between 49.2m and 49.6m; with common to abundant actinolite as stringers and patches, sparse quartz as stringers, trace schorl as fine flecks.<br><br>BCA at 49.4m = 80 degrees<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (mineralogy). | | | | | | | | | |
| 52.54 | 56.22 | **EPIDOTE-QUARTZ SKARN**<br><br>Massive light green epidote-quartz skarn with trace calcite and quartz as slightly vuggy stringers, minor actinolite as stringers and patches towards end of interval.<br><br>The interval is microfaulted in part.<br><br>Remnant bedding? at 55.4m suggests BCA = 70 degrees.<br><br>The interval is generally unbroken but is broken towards the end.<br><br>The contact with the next interval is gradational (mineralogy). | | | | | | | | | |
| 56.22 | 58.50 | **CHERT AND HORNFELS (VOLCANICLASTIC) AND LESSER SKARN**<br><br>Interbedded mottled grey, cream and green chert and grey-green (actinolite) fine to medium grained hornfels (volcaniclastic) and lesser green quartz-epidote skarn; with minor actinolite pervasive in hornfels in part, sparse quartz as stringers, trace light brown garnet? as stringers, trace epidote as stringers in chert and hornfels.<br><br>BCA is irregular.<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 58.50 | 61.50 | **QUARTZ-EPIDOTE-SERPENTINE SKARN**<br><br>Mottled white, green and black quartz-epidote-serpentine? skarn with sparse calcite as stringers, trace black sphalerite as fine flecks.<br><br>BCA is obscure.<br><br>The interval is broken. | | | | | | | | | |

861091

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is sharp but somewhat irregular, at about 45 degrees to the core axis. | | | | | | | | | |
| 61.50 | 123.10 | **HORNFELS (VOLCANICLASTIC AND MUCH LESSER SILTSTONE) AND LESSER CHERT**<br><br>Interbedded brown (phlogopite), grey-brown, green-grey and green (actinolite) fine to medium grained hornfels (volcaniclastic and much lesser siltstone) and lesser cream, brown, black, grey and green-grey partly brecciated chert; with common actinolite pervasive in hornfels in part, interstitial to chert breccia, as irregular patches and stringers, sparse quartz as stringers and partly vuggy veinlets, minor phlogopite pervasive in hornfels in part, trace pyrrhotite as flecks and stringers, sparse axinite as rare small patches, trace chalcopyrite as fine flecks.<br><br>Bedding in the chert is ruptured and the chert has a brecciated fabric in part; the interval is microfaulted in part.<br><br>BCA at 66.7m = 75 degrees<br>BCA at 81.3m = 75 degrees<br>BCA at 84.6m = 60 degrees<br>BCA at 89.1m = 75 degrees<br>BCA at 94.6m = 50 degrees<br>BCA at 102.6m = 70 degrees<br>BCA at 114.7m = 65 degrees<br>BCA at 121.2m = 60 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 123.10 | 125.20 | **ACTINOLITE SKARN AND CHERT**<br><br>Massive green actinolite rock intermixed with cream, pink-cream and green-cream chert (fine grained volcaniclastic?) with sparse pyrite as fine flecks, sparse epidote as small patches.<br><br>BCA at 124.1m = 70 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 125.20 | 134.00 | **HORNFELS AND MUCH LESSER ACTINOLITE SKARN**<br><br>Dark brown-black banded hornfels (fine grained volcaniclastic and siltstone) and much | | | | | | | | | |

861092

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | lesser interbanded bands of actinolite skarn (as between 123.1m and 125.2m); the hornfels contains occasional sub-rounded lithic clasts up to 2cm across; with sparse quartz as stringers, sparse crystalline pyrite on joints, trace pyrrhotite as fine stringers.<br><br>BCA at 127.9m = 80 degrees<br>BCA at 128.9m = 90 degrees<br>BCA at 130.7m = 90 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is sharp at 45 degrees to the core axis. | | | | | | | | | |
| 134.00 | 141.80 | **PSEUDOCONGLOMERATE**<br><br>Mottled mid brown, dark brown and dark grey brecciated chert; ruptured and brecciated bedding in the chert gives the appearance of a poorly sorted conglomerate made up of irregularly shaped fragments from a few millimetres to a few centimetres long; with minor interstitial actinolite accumulating to abundance on some bands, minor pyrrhotite as stringers and flecks, trace pyrite as disseminations and as crystals on joints.<br><br>BCA is irregular.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 141.80 | 145.98 | **PROTOSKARN**<br><br>Mottled green, grey and brown very altered actinolitised chert breccia (protoskarn) with fragments of chert up to several centimetres across; with abundant interstitial actinolite, sparse black-green serpentine? interstitial and as small irregular patches, trace disseminated chalcopyrite.<br><br>Bedding has been destroyed.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 145.98 | 147.44 | **HORNFELS (SILTSTONE)**<br><br>Dark grey-brown fine grained hornfels (siltstone), brecciated in part, with minor pyrrhotite as stringers and blebs, minor actinolite interstitial to brecciated parts.<br><br>BCA is obscure. | | | | | | | | | |

861093

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 45 degrees to the core axis. | | | | | | | | | |
| 147.44 | 183.93 | **BRECCIATED CHERT** | | | | | | | | | |
| | | Mottled light green, dark green, green-cream, grey, grey-cream and brown brecciated chert which grades from protoskarn (as between 141.80m and 145.98m) through chert, with ruptured and brecciated bedding with abundant actinolite, to chert and rare green-grey fine to medium grained hornfels (volcaniclastic) as bands up to half a metre long; with abundant actinolite interstitial and as bands, sparse quartz as stringers, sparse epidote? as stringers, trace crystalline pyrite on joints, sparse black-green serpentine interstitial in part; this is a very altered rock. | | | | | | | | | |
| | | The interval is very brecciated throughout and microfaulted in part. | | | | | | | | | |
| | | BCA at 161.8m = 30 degrees<br>BCA at 166.0m = 50 degrees<br>BCA at 167.4m = 65 degrees | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 183.93 | 199.63 | **HORNFELS (SILTSTONE AND LESSER VOLCANICLASTIC) AND CHERT** | | | | | | | | | |
| | | Brown-black and grey-black hornfels fine grained hornfels (siltstone and lesser volcaniclastic) and mottled brown, grey and green chert; with minor quartz as stringers and veinlets, sparse pyrrhotite as disseminations, flecks, stringers and small patches, minor actinolite interstitial to brecciated chert, trace chalcopyrite? as flecks, trace crystalline pyrite on joints; pyrrhotite and quartz are distinctive components of this interval. | | | | | | | | | |
| | | The chert is brecciated and bedding in the chert is generally ruptured and brecciated. | | | | | | | | | |
| | | BCA at 198.3m = 70 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 199.63 | 203.20 | **ACTINOLITE SKARN AND MUCH LESSER CHERT** | | | | | | | | | |
| | | Mottled green actinolite rock and much lesser mottled brown, grey and white brecciated chert; with trace pyrrhotite as flecks in actinolite skarn and as stringers in chert, trace chalcopyrite as flecks and stringers in actinolite skarn. | | | | | | | | | |

861094

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **203.20** | **210.75** | **CHERT** | | | | | | | | | |
| | | Mottled brown, grey and grey-brown chert with sparse quartz as stringers, sparse pyrrhotite as stringers, lace veining and accumulating along bedding in places, sparse crystalline pyrite on joints. | | | | | | | | | |
| | | The interval is brecciated and bedding is ruptured or irregularly oriented (slump folding?); the interval is microfaulted in part. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **210.75** | **238.20** | **HORNFELS (VOLCANICLASTIC)** | | | | | | | | | |
| | | Grey, grey-black and green-black fine grained hornfels (volcaniclastic) with minor quartz as stringers and veinlets, sparse pyrrhotite and pyrite as stringers and flecks associated with quartz, trace chalcopyrite as flecks associated with quartz, sparse crystalline pyrite on joints; the quartz is a distinctive feature of this interval. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **238.20** | **256.39** | **ACTINOLITE SKARN AND CHERT AND MUCH LESSER HORNFELS** | | | | | | | | | |
| | | Intermixed green actinolite skarn and brown, grey and green chert and much lesser brown fine grained hornfels (volcaniclastic); with trace quartz as stringers and veinlets, trace schorl as small patches, sparse serpentine as veinlets and veins towards 256.39m, sparse magnetite as flecks associated with serpentine. | | | | | | | | | |
| | | Generally, bedding has been destroyed and BCA is obscure.<br>BCA at 252.9m = 60 degrees. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |

861095

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 256.39 | 257.51 | **LIGHT AND DARK SERPENTINITE**<br><br>Mottled light and dark green serpentinite with common magnetite as blebs and small patches, minor chrysotilic serpentine as veinlets.<br><br>The interval has a brecciated fabric.<br><br>The interval is extremely broken.<br><br>The contact with the next interval is sharp at 65 degrees to the core axis. | | | | | | | | | |
| 257.51 | 257.60 | **SERPENTINITE BRECCIA: FAULT?**<br><br>Grey-green puggy serpentinite breccia with fragments up to about 2cm across.<br><br>The interval is puggy and rubbly.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 257.60 | 259.56 | **DARK SERPENTINITE**<br><br>Mottled grey and black serpentinite with a slush brecciated fabric; with sparse magnetite as stringers, trace disseminated pyrrhotite.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 259.56 | 268.65 | **MOTTLED SERPENTINITE**<br><br>Mottled grey and brown serpentinite grading to mottled light and dark green serpentinite; with sparse magnetite as stringers, trace disseminated pyrrhotite and pentlandite, sparse light green serpentine as veinlets.<br><br>The interval is broken especially near the serpentine veinlets.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 268.65 | 282.95 | **MOTTLED SERPENTINITE**<br><br>Mottled light and dark green serpentinite with common chrysotilic serpentine as stringers and lace veining, sparse magnetite as blebs; with occasional narrow puggy breccia zones up to a few centimetres long.<br><br>The interval is broken to extremely broken. | | | | | | | | | |

861096

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 282.95 | 297.10 | **MOTTLED SERPENTINITE** | | | | | | | | | |
| | | As between 268.65m and 282.95m but only sparse chrysotilic serpentine as stringers. | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| 297.10 | 305.71 | **MOTTLED SERPENTINITE AND MUCH LESSER PUGGY SERPENTINITE BRECCIA** | | | | | | | | | |
| | | Mottled light green, cream-green and black serpentinite and occasional bands of puggy serpentinite breccia; with sparse chrysotilic serpentine as stringers, veinlets and lace veining, minor magnetite as blebs, stringers and veinlets; the breccia bands include;<br>297.10m to 297.50m: 40cm of serpentinite rubble, drillers reported "fault"<br>298.57m to 298.70m: puggy serpentinite breccia<br>299.25m to 299.35m: puggy serpentinite breccia at 55 degrees to the core axis<br>300.27m to 300.44m: puggy serpentinite breccia at 55 degrees to the core axis<br>303.90m to 303.96m: puggy serpentinite breccia at 65 degrees to the core axis<br>304.83m to 305.00m: puggy serpentinite breccia at 35 degrees to the core axis | | | | | | | | | |
| | | The interval is broken to extremely broken, locally puggy and rubbly (near breccia bands). | | | | | | | | | |
| | | The contact with the next interval is sharp at 55 degrees to the core axis. | | | | | | | | | |
| 305.71 | 317.45 | **HORNFELS (VOLCANICLASTIC)** | | | | | | | | | |
| | | Mottled green (actinolite), brown (phlogopite)-black, brown (phlogopite)-grey and grey fine grained hornfels (volcaniclastic) with minor pervasive phlogopite, common actinolite pervasive in part, interstitial to hydraulically? brecciated parts, as stringers and veinlets, sparse crystalline pyrite on joints. | | | | | | | | | |
| | | The interval has an hydraulically? brecciated fabric and bedding has been destroyed. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 45 degrees to the core axis. | | | | | | | | | |
| 317.45 | 332.22 | **HORNFELS (VOLCANICLASTIC AND LAPILLI TUFF)** | | | | | | | | | |
| | | Mottled grey, brown (phlogopite), green (actinolite) and green (actinolite)-grey fine to coarse grained hornfels (volcaniclastic and lapilli tuff with fragments up to 4cm across, for example, near 317.6m) with common actinolite pervasive in part, interstitial to | | | | | | | | | |

861097

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | hydraulically? brecciated parts, as stringers and veinlets, minor pervasive phlogopite, sparse quartz as blebs and stringers, sparse pyrrhotite as flecks associated with quartz and actinolite, trace chalcopyrite as flecks associated with quartz, sparse crystalline pyrite on joints. | | | | | | | | | |
| | | The interval has an hydraulically? brecciated fabric; some parts near actinolite rich zones are cherty; this is a very altered rock. | | | | | | | | | |
| | | Bedding has been destroyed by brecciation and alteration. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **332.22** | **342.77** | **HORNFELS (VOLCANICLASTIC)** | | | | | | | | | |
| | | As between 317.45m and 332.22m but no lapilli tuff present. | | | | | | | | | |
| | | Bedding has been destroyed by brecciation and alteration. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| **342.77** | **348.03** | **HORNFELS (SILTSTONE AND VOLCANICLASTIC)** | | | | | | | | | |
| | | Dark brown-black fine grained hornfels (siltstone and volcaniclastic) with sparse actinolite as stringers and patches, sparse pyrrhotite as flecks, blebs and stringers, trace quartz as stringers; pyrrhotite is a distinctive component of the interval. | | | | | | | | | |
| | | The interval has a microfaulted fabric. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| **348.03** | **352.88** | **HORNFELS AND LESSER CHERTY HORNFELS** | | | | | | | | | |
| | | Mottled brown (phlogopite) and green (actinolite) hornfels (volcaniclastic), cherty in part; with common phlogopite pervasive in part, common actinolite pervasive in part and as stringers, small patches and patches, sparse to minor pyrrhotite as flecks and stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |

861098

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 352.88 | 354.50 | **AXINITE-QUARTZ-ACTINOLITE SKARN** | | | | | | | | | |
| | | Pink-cream axinite-quartz rock with lesser green actinolite rock (tending to occur near each contact); with sparse disseminated pyrrhotite. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 354.50 | 359.28 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN** | | | | | | | | | |
| | | Intermixed hornfels and lesser cherty hornfels as between 348.03m and 354.50m and lesser brecciated actinolite skarn. | | | | | | | | | |
| | | The interval has a brecciated fabric. | | | | | | | | | |
| | | Bedding has been destroyed by brecciation and alteration. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 359.28 | 359.88 | **ACTINOLITE-CHLORITE? SKARN** | | | | | | | | | |
| | | Mottled green, cream and cream-brown brecciated actinolite-chlorite? skarn with minor disseminated pyrrhotite. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 359.88 | 376.46 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 354.5m and 359.28m. | | | | | | | | | |
| | | Bedding has been destroyed. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |

861099

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 376.46 | 380.98 | **SILTSTONE** | | | | | | | | | |
| | | Black and grey brecciated siltstone with common pyrrhotite as flecks, stringers and small patches, sparse actinolite interstitial in part, trace quartz as stringers, trace crystalline pyrite on joints. | | | | | | | | | |
| | | Brecciation has resulted in a conglomeratic appearance in part. | | | | | | | | | |
| | | Bedding has been destroyed by brecciation. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp planar at 45 degrees to the core axis. | | | | | | | | | |
| 380.98 | 400.42 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 359.88m and 376.46m plus trace schorl as flecks associated with quartz; the interval is microfaulted in part. | | | | | | | | | |
| | | Bedding has been destroyed. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 400.42 | 407.40 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 380.98m and 400.42m but with more pyrrhotite and quartz: sparse pyrrhotite as flecks, blebs and stringers, sparse quartz as blebs and stringers. | | | | | | | | | |
| | | Bedding has been destroyed. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 407.40 | 408.18 | **ACTINOLITE SKARN** | | | | | | | | | |
| | | Mottled dark and mid green actinolite skarn with minor pyrrhotite as flecks and small patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |

861100

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 408.18 | 412.45 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN** | | | | | | | | | |
| | | As between 400.42m and 407.40m plus intermixed quartz-actinolite as irregularly shaped patches up to 30cm long. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 412.45 | 413.94 | **ACTINOLITE-EPIDOTE? SKARN AND CHERT** | | | | | | | | | |
| | | Intermixed mottled green and brown actinolite-epidote? skarn and grey and green chert; with sparse quartz as stringers, sparse pyrrhotite as flecks associated with skarn, sparse | | | | | | | | | |
| | | BCA at 412.9m = 45 degrees | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| 413.94 | 419.07 | **LIMESTONE** | | | | | | | | | |
| | | Mottled grey, green-grey and white limestone with sparse magnetite as flecks and stringers, sparse sphalerite as flecks. | | | | | | | | | |
| | | Bedding has been disturbed and BCA is obscure or irregular. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralisation). | | | | | | | | | |
| 419.07 | 421.27 | **ACTINOLITE SKARN AND MUCH LESSER CHERT** | | | | | | | | | |
| | | Massive green actinolite skarn and much lesser intermixed white and brown chert as fragments, wispy in part; with sparse phlogopite as small patches, sparse pyrrhotite as flecks and stringers, trace pyrite as flecks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A031

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Pb ppm | Zn ppm | As ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 421.27 | 431.63 | **HORNFELS (VOLCANICLASTIC AND MUCH LESSER SILTSTONE)**<br><br>Dark grey to black fine to medium grained hornfels (volcaniclastic and much lesser siltstone) with sparse actinolite as stringers, veinlets and lace veining, sparse quartz as stringers, veinlets and lace veining, sparse pyrrhotite as flecks and veinlets.<br><br>The interval has a brecciated fabric with network veining.<br><br>BCA is obscure.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 431.63 | 434.79 | **HORNFELS AND LESSER CHERTY HORNFELS AND ACTINOLITE SKARN**<br><br>As between 400.42m and 407.4m.<br><br>Bedding is irregularly oriented.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is sharp at 25 degrees to the core axis. | | | | | | | | | |
| 434.79 | 451.30 | **HORNFELS AND MUCH LESSER CHERT**<br><br>Grey and brown (phlogopite)-grey fine to medium grained hornfels (volcaniclastic) and much lesser brown chert as narrow brecciated bands and intermixed mottled green and brown actinolitised and phlogopitised brecciated hornfels (volcaniclastic); with common actinolite in actinolitised-phlogopitised hornfels and as stringers and veinlets, minor phlogopite in actinolitised-phlogopitised hornfels and pervasive in hornfels, sparse quartz as blebs and stringers, trace disseminated pyrite, sparse crystalline pyrite on joints.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>**END OF HOLE AT 451.3m** | | | | | | | | | |

861102

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **hole no** | A032 | | **downhole surveys** | | | | | | |
| | | | **at** | **mag brg** | **AMG brg as read** | **AMG brg corrected** | **AMG brg as used** | **dip** | |
| **final depth** | 396.5 | m | | | | | | | |
| | | | 0 | - | - | 179 | 179 | -47 | Collar bearing and dip are as provided by surveyor. |
| **east** | 355,616.16 | AMG | 25 | 171 | 184 | 179 | 179 | -46 | All downhole bearings and dips were surveyed using a downhole camera. |
| **north** | 5,357,553.51 | AMG | 52 | 172 | 185 | 180 | 180 | -45 | Down-hole bearings as read have been corrected for local magnetic error by subtracting |
| **rl** | 2,183.17 | m | 100 | 206 | 219 | 214 | 179 | -46 | 5 degrees (determined by comparing the true collar bearing as determined by theodolite |
| | | | 150 | 170 | 183 | 178 | 178 | -46.5 | survey with the first down-hole camera survey). |
| **HQ** | | | 200 | 175 | 188 | 183 | 183 | -43.5 | Obviously erratic down-hole bearings have been replaced by interpolation or |
| **NQ** | | | 250 | 111 | 124 | 119 | 184 | -42.5 | extrapolation to fit the general trend of bearing changes in the hole. |
| | | | 304 | 191 | 204 | 199 | 186 | -41.5 | For more information regarding the protocol used to correct the bearings, refer to the |
| **commenced** | 13-Feb-01 | | 350 | 180 | 193 | 188 | 188 | -41 | memo "Avebury project - down-hole surveys" (McKeown, 12 October 2000). |
| **completed** | 28-Feb-01 | | 396.5 | 305 | 318 | 313 | 188 | -40 | |

**logged by** Mick McKeown

**drilled by** Almac Pty Ltd

**analyses by** Analabs Pty Ltd

**COMMENTS**

Note that 2000m has been added to the actual RL.

**SIGNIFICANT INTERSECTIONS**

| **formation** | **comment** | **from m** | **to m** | **length m** | **Ni %** | **S %** | **Cu ppm** | **Co ppm** | **Zn ppm** | **As ppm** | **Ag ppm** | **Cr ppm** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cum | northern serpentinite | 64.3 | 99.74 | | | | | | | | | |
| Cum | southern serpentinite | 227.50 | 301.75 | | | | | | | | | |
| | nickel mineralisation | 227.50 | 241.00 | 13.5 | 0.55 | 0.44 | X | 160 | 248 | X | X | 1833 |

861103

| A032 | at | bearing as used AMG | dip | from | to | down-hole interval | horizontal interval | vertical interval | east shift | north shift | easting AMG | northing AMG | RL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | m | m | | m | m | | | m | m | m |
| **HOLE PATH** | | | | | | | | | | | | | |
| | | | | | collar | | | | | | 355,616.2 | 5,357,553.5 | 2,183.2 |
| | 0.0 | 179 | -47.0 | 0.0 | 12.5 | 12.5 | 8.5 | -9.1 | 0.1 | -8.5 | 355,616.3 | 5,357,545.0 | 2,174.0 |
| | 25.0 | 179 | -46.0 | 12.5 | 38.5 | 26.0 | 18.1 | -18.7 | 0.3 | -18.1 | 355,616.6 | 5,357,526.9 | 2,155.3 |
| | 52.0 | 180 | -45.0 | 38.5 | 76.0 | 37.5 | 26.5 | -26.5 | 0.0 | -26.5 | 355,616.6 | 5,357,500.4 | 2,128.8 |
| | 100.0 | 179 | -46.0 | 76.0 | 125.0 | 49.0 | 34.0 | -35.2 | 0.6 | -34.0 | 355,617.2 | 5,357,466.4 | 2,093.6 |
| | 150.0 | 178 | -46.5 | 125.0 | 175.0 | 50.0 | 34.4 | -36.3 | 1.2 | -34.4 | 355,618.4 | 5,357,432.0 | 2,057.3 |
| | 200.0 | 183 | -43.5 | 175.0 | 225.0 | 50.0 | 36.3 | -34.4 | -1.9 | -36.2 | 355,616.5 | 5,357,395.8 | 2,022.9 |
| | 250.0 | 184 | -42.5 | 225.0 | 277.0 | 52.0 | 38.3 | -35.1 | -2.7 | -38.2 | 355,613.8 | 5,357,357.5 | 1,987.7 |
| | 304.0 | 186 | -41.5 | 277.0 | 327.0 | 50.0 | 37.4 | -33.1 | -3.9 | -37.2 | 355,609.9 | 5,357,320.3 | 1,954.6 |
| | 350.0 | 188 | -41.0 | 327.0 | 373.3 | 46.3 | 34.9 | -30.3 | -4.9 | -34.6 | 355,605.1 | 5,357,285.7 | 1,924.3 |
| | 396.5 | 188 | -40.0 | 373.3 | 396.5 | 23.3 | 17.8 | -14.9 | -2.5 | -17.6 | 355,602.6 | 5,357,268.1 | 1,909.3 |
| check sums and differences | | | | | | 396.5 | 286.3 | -273.8 | -13.6 | -285.4 | -13.6 | -285.4 | -273.8 |
| **first northern serpentinite contact** | | | | | 64.30 | | | | | | 355,616.6 | 5,357,508.7 | 2,137.1 |
| **second northern serpentinite contact** | | | | | 99.74 | | | | | | 355,616.9 | 5,357,483.9 | 2,111.7 |
| **first southern serpentinite contact** | | | | | 227.50 | | | | | | 355,616.4 | 5,357,393.9 | 2,021.2 |
| **centre of ore** | | | | | 234.25 | | | | | | 355,616.0 | 5,357,389.0 | 2,016.6 |
| **southern ore contact** | | | | | 241.00 | | | | | | 355,615.7 | 5,357,384.0 | 2,012.1 |
| **second southern serpentinite contact** | | | | | 301.75 | | | | | | 355,611.9 | 5,357,339.1 | 1,971.3 |

861104

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 2.60 | not cored | | | | | | | | | | |
| 2.60 | 13.92 | **VOLCANICLASTIC AND SILTSTONE**<br><br>Extremely broken to rubbly light to dark grey fine grained volcaniclastic and siltstone; with sparse clay as stringers and veinlets near start of interval, common ironstaining on joints and fractures.<br><br>BCA is obscure.<br><br>The interval is extremely broken to rubbly.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 13.92 | 37.56 | **VOLCANICLASTIC AND LESSER CHERT**<br><br>Brown-grey fine to medium grained volcaniclastic and lesser grey chert; with sparse ironstaining on joints near start and sparse crystalline pyrite on joints elsewhere, sparse quartz as blebs and veins associated with actinolite, minor actinolite as stringers, veinlets and veins, sparse pyrrhotite as flecks and stringers.<br><br>Bedding in the chert is ruptured to brecciated.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 37.56 | 58.45 | **VOLCANICLASTIC AND SKARNISED CHERT**<br><br>Intermixed volcaniclastic as in previous interval and mottled brown, cream and green brecciated, actinolitised, skarnised chert; mineralisation as in previous interval plus common actinolite as in previous interval and also interstitial to chert breccia.<br><br>BCA at 54.5m = 50 degrees<br><br>The interval is broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| 58.45 | 64.30 | **SKARNISED CHERT**<br><br>Mottled light grey and light grey-green skarnised (brecciated, silicifies and actinolitised) chert with minor quartz as stringers, sparse red-brown sphalerite as stringers, ironstaining on joints over the last half metre of the interval. | | | | | | | | | | |

861105

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **64.30** | **64.71** | **SILICATE ROCK (AFTER SERPENTINITE)** | | | | | | | | | | |
| | | Cream and light grey silicate rock (after serpentinite) with common magnetite as flecks and small patches; slickensides on some joints. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **64.71** | **65.65** | **BLACK SERPENTINITE** | | | | | | | | | | |
| | | Black serpentinite with minor magnetite as stringers, sparse pentlandite as flecks, minor chrysotilic serpentine as veinlets, sparse calcite as stringers. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **65.65** | **66.05** | **BLACK SERPENTINITE BRECCIA** | | | | | | | | | | |
| | | Black serpentinite breccia: fragments up to about 2cm across in a puggy serpentine matrix. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is rubbly. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **66.05** | **85.10** | **DARK SERPENTINITE** | | | | | | | | | | |
| | | Black, green and lesser mottled cream-green serpentinite with trace magnetite, sparse chrysotilic serpentine as stringers and veinlets, sparse calcite as stringers; the interval is brecciated and broken in part, especially near the start and also between 69.50m and 69.60m. | | | | | | | | | | |

861106

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **85.10** | **87.14** | **FAULT: SERPENTINITE BRECCIA**<br><br>Brown and black sheared serpentinite breccia: fine fragments up to about 1cm across; vuggy (waterworn) with quartz as lace veining.<br><br>BCA is obscure.<br><br>The interval is very broken to rubbly.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **87.14** | **99.29** | **DARK SERPENTINITE**<br><br>Green to black serpentinite with common calcite as stringers, veinlets and narrow veins, some veins carry dark serpentinite as small fragments, minor magnetite as flecks and blebs, sparse chrysotilic serpentine as stringers and veinlets, trace pentlandite as disseminations and fine flecks.<br><br>Some calcite stringers and veinlets are slightly vuggy.<br><br>The interval is broken.<br><br>The contact with the next interval is diffuse. | 97.29<br>98.29 | 98.29<br>99.29 | 0.16<br>0.07 | 0.60<br>0.24 | 130<br>28 | 160<br>78 | 135<br>78 | X<br>X | X<br>X | 1010<br>2240 |
| **99.29** | **99.74** | **SILICATE ROCK (AFTER SERPENTINITE) AND BLACK SERPENTINITE**<br><br>Intermixed mottled grey and cream silicate rock (after serpentinite) and black magnetite-serpentinite; with sparse pentlandite/pyrrhotite intergrowths as fine flecks tending to be concentrated in the black serpentinite, common magnetite as flecks, stringers and small patches (associated with black serpentinite), sparse calcite as stringers.<br><br>The interval is broken.<br><br>The contact with the next interval is sharp but broken. | 99.29 | 99.74 | 0.08 | 0.99 | 360 | 120 | 230 | X | X | 1440 |
| **99.74** | **103.20** | **CHERT**<br><br>Mottled green (actinolite), cream, grey, and pale mauve (axinite)-grey brecciated chert | 99.74 | 100.74 | 0.03 | 0.05 | 150 | 68 | 290 | X | 6 | 180 |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | with abundant interstitial actinolite, sparse epidote as veinlets and small patches, trace pervasive axinite in part; this is a very altered rock. | | | | | | | | | | |
| | | Brecciated fragments are up to 5cm across and bedding ahs been completely destroyed. BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| **103.20** | **105.37** | **ACTINOLITE-EPIDOTE SKARN AND LESSER CHERT** | | | | | | | | | | |
| | | Intermixed mottled green and green-grey actinolite-epidote skarn and cream chert fragments (up to about 4cm across); with trace disseminated black sphalerite?, trace disseminated light brown silicate? | | | | | | | | | | |
| | | Generally, bedding has been destroyed but<br>BCA at 105.3m = 45 degrees | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp nut irregular. | | | | | | | | | | |
| **105.37** | **111.28** | **ACTINOLITE-EPIDOTE PROTOSKARN IN CHERT** | | | | | | | | | | |
| | | Mottled grey, green-grey, cream and green brecciated chert with abundant actinolite interstitial to breccia and as stringers, veinlets and small patches, abundant epidote as small patches and patches; a very small proportion of this interval may be remnant limestone. | | | | | | | | | | |
| | | Bedding has been destroyed and BCA is obscure. | | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| **111.28** | **173.77** | **CHERT AND VOLCANICLASTIC** | | | | | | | | | | |
| | | Interbedded and intermixed grey to green fine to medium grained volcaniclastic and mottled cream, crimson, grey, green, brown and faun brecciated chert; with common actinolite pervasive in the volcaniclastic in part and as stringers, lace veining, small patches and patches, sparse epidote as small patches and as cores to small chert fragments in part (fragments up to about 2cm across), trace quartz and calcite as stringers; this is a very altered rock. | | | | | | | | | | |
| | | The interval is brecciated throughout, microfaulted in part and bedding is ruptured. This | | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | is a very hydraulically? brecciated interval. The interval is slightly vuggy in part. | | | | | | | | | | |
| | | BCA is irregular. | | | | | | | | | | |
| | | The interval is broken to extremely broken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralogy). | | | | | | | | | | |
| **173.37** | **175.37** | **CHERT** | | | | | | | | | | |
| | | Mottled pink (axinite), pink (axinite)-grey and cream brecciated chert with sparse pervasive axinite in part, abundant actinolite interstitial to breccia and as stringers and veinlets. | | | | | | | | | | |
| | | The interval has an hydraulically? brecciated fabric similar to that in the previous interval; bedding is ruptured; the interval is microfaulted in part. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| **175.37** | **182.38** | **AXINITE-CHERT SKARN** | | | | | | | | | | |
| | | Mottled pale mauve, cream and green axinite-chert skarn: corroded brecciated chert fragments up to about 5cm across in an axinitic groundmass; with sparse epidote as small patches and patches, sparse actinolite as stringers and small patches, sparse calcite as veinlets, trace specular haematite? as fine flecks. | | | | | | | | | | |
| | | Bedding has been destroyed and BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithological). | | | | | | | | | | |
| **182.38** | **187.97** | **CHERT** | | | | | | | | | | |
| | | As between 173.77m and 175.37m plus sparse calcite as veinlets. | | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | | |
| **187.97** | **189.73** | **AXINITE-EPIDOTE PROTOSKARN IN CHERT** | | | | | | | | | | |
| | | Mottled pale mauve, green, grey and cream axinite-epidote protoskarn in chert: brecciated chert with abundant axinite as patches, common epidote as small patches and | | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | patches, sparse schorl as stringers and small patches. | | | | | | | | | | |
| | | The interval is brecciated and BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| **189.73** | **191.42** | **CHERT** | | | | | | | | | | |
| | | Grey and green brecciated chert with common actinolite as stringers and lace veining, sparse epidote as small patches. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| **191.42** | **191.70** | **SERPENTINITE** | | | | | | | | | | |
| | | Dark green serpeninite with common calcite as veinlets carrying serpentinite fragments up to about 2cm across, no detectable magnetite. | | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| **191.70** | **192.80** | **CHERT** | | | | | | | | | | |
| | | Green-grey brecciated chert with common epidote as small patches and patches, abundant axinite as patches and veins, trace calcite as stringers, sparse actinolite as flecks and small patches. | | | | | | | | | | |
| | | The interval is brecciated but has not been reduced to fragments. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **192.80** | **193.47** | **SERPENTINITE-LIMESTONE? BRECCIA** | | | | | | | | | | |
| | | Mottled dark green (serpentinite) and white (limestone?) serpentinite-limestone? breccia with a serpentinitic matrix; with sparse calcite as stringers and veinlets, no detectable | | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | magnetite. | | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 193.47 | 194.78 | **CHERT** | | | | | | | | | | |
| | | Mottled grey, pale mauve (axinite)-grey and pale mauve (axinite) brecciated chert with abundant axinite pervasive and as small patches and patches, sparse epidote as flecks and small patches, sparse actinolite as flecks and diffuse small patches, slightly calcareous rounded (corroded?) fragments up to 2cm across. | | | | | | | | | | |
| | | The interval is brecciated to fragments. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp at 60 degrees to the core axis. | | | | | | | | | | |
| 194.78 | 212.50 | **CHERT AND MUCH LESSER VOLCANICLASTIC** | | | | | | | | | | |
| | | Mottled grey, green, cream and brown brecciated chert and much lesser brown-grey fine grained volcaniclastic; with sparse epidote as small patches and patches, sparse actinolite as stringers and interstitial to brecciated chert, sparse quartz as stringers, trace calcite as stringers. | | | | | | | | | | |
| | | Brecciation has destroyed bedding and BCA is irregular. | | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 212.50 | 215.14 | **CHERT AND EPIDOTE SKARN AND AXINITE SKARN** | | | | | | | | | | |
| | | Intermixed cream, mauve (axinite)-grey and green-grey brecciated chert and green epidote skarn and pale mauve axinitic skarn; with minor epidote as stringers, small patches and patches. | | | | | | | | | | |
| | | Bedding has been destroyed and BCA is irregular. | | | | | | | | | | |
| | | The` interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | | |

861111

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 215.14 | 219.04 | **CHERT AND MUCH LESSER VOLCANICLASTIC** | | | | | | | | | | |
| | | As between 194.78m and 212.50m | | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| 219.04 | 220.65 | **CHERT AND AXINITE SKARN** | | | | | | | | | | |
| | | Mottled cream brecciated chert and semi-massive pale mauve axinite skarn; with sparse actinolite and epidote as patches. | | | | | | | | | | |
| | | Bedding has been destroyed and BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (mineralisation). | | | | | | | | | | |
| 220.65 | 227.51 | **CHERT AND MUCH LESSER VOLCANICLASTIC** | 226.51 | 227.51 | 0.02 | 0.05 | X | 38 | 455 | X | 5 | 220 |
| | | As between 194.78m and 212.50m but no volcaniclastic plus sparse serpentine as stringers and veinlets, trace pale flesh pink-brown silicate? as fine flecks. | | | | | | | | | | |
| | | Bedding has been destroyed and BCA is obscure. | | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 227.51 | 228.40 | **BRECCIATED SERPENTINITE: FAULT** | 227.51 | 228.40 | 0.50 | 0.53 | 280 | 215 | 315 | 100 | X | 270 |
| | | Mottled white, grey, grey-green brecciated serpentinite including discrete breccia zones with fragments up to 1cm across in puggy serpentine matrix: fault? | | | | | | | | | | |
| | | The interval is rubbly and puggy. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 228.40 | 228.71 | **SILICATE ROCK (AFTER SERPENTINITE) AND MUCH LESSER DARK SERPENTINITE** | 228.40 | 228.71 | 2.10 | 2.25 | 115 | 720 | 165 | 180 | 5 | 360 |
| | | Intermixed light green silicate rock (after serpentinite) and much lesser dark green serpentinite; with common pentlandite as flecks, stringers, small patches and patches, sparse calcite as stringers. | | | | | | | | | | |

861112

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| **228.71** | **229.15** | **SERPENTINITE BRECCIA: FAULT** | 228.71 | 229.36 | 0.22 | 0.15 | X | 115 | 890 | 880 | X | 1870 |
| | | Green, grey serpentinite breccia in green serpentine matrix with minor calcite as small patches, no detectable magnetite, at 35 degrees to the core axis: fault? | | | | | | | | | | |
| | | The interval is rubbly and puggy. | | | | | | | | | | |
| | | The contact with the next interval is sharp at 35 degrees to the core axis. | | | | | | | | | | |
| **229.15** | **229.36** | **MOTTLED SERPENTINITE** | | | | | | | | | | |
| | | Mottled green, black and grey serpentinite with sparse calcite as stringers. | | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but planar. | | | | | | | | | | |
| **229.36** | **230.84** | **SILICATE ROCK (AFTER SERPENTINITE) AND MUCH LESSER DARK SERPENTINITE** | 229.36 | 230.84 | 0.30 | 0.25 | X | 84 | 205 | 130 | 5 | 1520 |
| | | Intermixed light to mid-green silicate rock (after serpentinite) and minor dark green silicate rock as small patches and patches; with sparse magnetite as flecks and stringers, sparse black serpentine as stringers and veinlets, trace green serpentine as veinlets, trace calcite as stringers and veinlets, sparse pentlandite as flecks and stringers. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The contact with the next interval is gradational. | | | | | | | | | | |
| **230.84** | **261.57** | **SILICATE ROCK (AFTER SERPENTINITE), DARK MAGNETITE-SERPENTINITE ROCK** | 230.84 | 232.00 | 0.80 | 0.60 | X | 215 | 165 | 350 | 4 | 1620 |
| | | | 232.00 | 233.00 | 0.42 | 0.30 | X | 105 | 140 | X | 4 | 1300 |
| | | | 233.00 | 234.00 | 0.83 | 0.64 | X | 210 | 195 | X | X | 1610 |
| | | Intermixed mottled grey and cream silicate rock (diopside? after serpentinite), magnetite-serpentinite rock and much lesser green-cream silicate rock (after serpentinite); with magnetite as disseminations, stringers and small patches in the grey and cream silicate mottled b rock; with sparse pentlandite as flecks tending to be more common in the magnetite-serpentinite rock becoming less common towards the end of the interval; the interval is slightly calcareous towards the end of the interval. | 234.00 | 235.00 | 0.57 | 0.43 | X | 135 | 205 | X | X | 1830 |
| | | | 235.00 | 236.00 | 0.37 | 0.26 | X | 105 | 355 | 130 | X | 4570 |
| | | | 236.00 | 237.00 | 0.66 | 0.53 | 205 | 145 | 145 | X | X | 1890 |
| | | | 237.00 | 238.00 | 0.68 | 0.56 | X | 180 | 145 | X | X | 1340 |
| | | | 238.00 | 239.00 | 0.34 | 0.25 | X | 110 | 325 | X | 6 | 3020 |
| | | | 239.00 | 240.00 | 0.23 | 0.12 | X | 76 | 170 | X | X | 1850 |
| | | | 240.00 | 241.00 | 0.77 | 0.60 | X | 235 | 260 | X | X | 1630 |
| | | The mottled rock has a slush breccia fabric in part with fragments up to about 5cm across, for example, near 257.4m. | 241.00 | 242.00 | 0.35 | 0.24 | X | 100 | 135 | X | X | 1590 |
| | | | 242.00 | 243.00 | 0.18 | 0.10 | X | 58 | 185 | X | X | 1210 |
| | | | 243.00 | 244.00 | 0.18 | 0.09 | X | 60 | 300 | X | 5 | 1730 |

861113

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 244.00 | 245.00 | 0.43 | 0.31 | X | 155 | 390 | X | 6 | 2210 |
| | | | 245.00 | 246.00 | 0.23 | 0.14 | X | 98 | 180 | X | X | 1760 |
| | | | 246.00 | 247.00 | 0.14 | 0.06 | X | 52 | 110 | X | X | 1240 |
| | | | 247.00 | 248.00 | 1.09 | 0.86 | 38 | 380 | 310 | X | 5 | 1410 |
| | | | 248.00 | 249.00 | 0.19 | 0.10 | X | 76 | 100 | X | X | 1500 |
| | | | 249.00 | 250.00 | 0.19 | 0.11 | 84 | 78 | 325 | X | 5 | 1720 |
| | | | 250.00 | 251.00 | 0.14 | 0.07 | 66 | 68 | 280 | 140 | 6 | 2100 |
| | | | 251.00 | 252.00 | 0.48 | 0.33 | X | 205 | 210 | X | X | 2290 |
| | | | 252.00 | 253.00 | 0.20 | 0.13 | X | 105 | 595 | X | X | 2180 |
| | | | 253.00 | 254.00 | 0.12 | 0.05 | X | 92 | 305 | X | X | 3610 |
| | | | 254.00 | 255.00 | 0.11 | 0.05 | X | 84 | 320 | X | X | 3370 |
| | | | 255.00 | 256.00 | 0.13 | 0.08 | X | 86 | 380 | X | X | 2520 |
| | | | 256.00 | 257.00 | 0.14 | 0.08 | X | 96 | 200 | X | X | 2200 |
| | | | 257.00 | 258.00 | 0.14 | 0.08 | X | 86 | 160 | X | X | 1970 |
| | | | 258.00 | 258.95 | 0.14 | 0.08 | 28 | 86 | 175 | X | X | 3210 |
| | | | 258.95 | 261.57 | 0.17 | 0.09 | 86 | 50 | 535 | X | X | 3180 |
| **261.57** | **263.20** | **TREMOLITE? ROCK (AFTER SERPENTINITE)** | 261.57 | 263.20 | 0.19 | 0.06 | X | 52 | 410 | 320 | X | 1930 |
| | | Mottled light green, partly crystalline calcareous tremolite? rock (after serpentinite) with trace pentlandite as flecks, trace black serpentine as stylolitic stringers and fine flecks. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | | |
| **263.20** | **277.18** | **TREMOLITE ROCK AND SERPENTINITE-QUARTZ-CALCITE ROCK** | 263.20 | 264.20 | 0.18 | 0.05 | X | 78 | 735 | 220 | X | 2680 |
| | | | 264.20 | 265.20 | 0.09 | 0.12 | 42 | X | 1360 | X | X | 1760 |
| | | Intermixed mottled grey-green tremolite rock and mottled black (serpentinite) and white (quartz and calcite) serpentinite-quartz-calcite rock and much lesser banded (bedded?) cream, black and green-cream serpentinitic? siltstone; tremolite rock with common magnetite as flecks, stringers and patches, sparse crystalline calcite as small patches; serpentinite-quartz-calcite rock with quartz and calcite as veins, small patches and patches, trace pentlandite as flecks, sparse red-brown sphalerite as flecks and small patches, trace flesh pink silicate? as flecks; serpentinitic? siltstone with sparse tremolite veining. | 265.20 | 266.20 | 0.12 | 0.05 | X | 48 | 1070 | 420 | X | 3810 |
| | | | 266.20 | 267.20 | 0.23 | 0.05 | 46 | 56 | 730 | 1400 | X | 1260 |
| | | | 267.20 | 268.20 | 0.71 | 0.39 | 52 | 110 | 1300 | 2470 | X | 920 |
| | | | 268.20 | 269.20 | 0.05 | 0.05 | X | 30 | 215 | X | X | 650 |
| | | | 269.20 | 270.20 | 0.25 | 0.19 | X | 64 | 465 | 530 | X | 770 |
| | | | 270.20 | 271.20 | 0.16 | 0.05 | X | 40 | 250 | 350 | 4 | 1230 |
| | | | 271.20 | 272.20 | 0.13 | 0.07 | X | 30 | 1080 | 410 | X | 1020 |
| | | | 272.20 | 273.20 | 0.07 | 0.05 | X | 34 | 1210 | 280 | X | 3490 |
| | | | 273.20 | 274.20 | 0.02 | 1.83 | 110 | 30 | >25000 | X | X | 790 |
| | | BCA at 265.4m = 65 degrees | 274.20 | 275.20 | 0.04 | 0.52 | X | X | 10500 | X | 4 | 720 |
| | | | 275.20 | 276.20 | 0.02 | 0.12 | X | X | 2590 | X | 5 | 700 |
| | | The interval is generally unbroken. | 276.20 | 277.18 | 0.03 | 0.05 | X | X | 460 | X | X | 1130 |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |

861114

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION |
|---|---|---|
| 277.18 | 297.38 | **TREMOLITE-SERPENTINITE ROCK**<br><br>Mottled light green (tremolite?) and mid-green (serpentinite) tremolite-serpentinite rock with sparse brown-red and black sphalerite as flecks and small patches, sparse white-green serpentine as veinlets, sparse quartz as small patches associated with sphalerite, trace magnetite as flecks, sparse small calcareous white fragments.<br><br>The interval has a slush breccia fabric with irregularly sized and shaped fragments up to about 5cm across.<br><br>BCA is obscure.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (lithology). |
| 297.38 | 301.75 | **TREMOLITE-SERPENTINITE-CALCITE ROCK AND MUCH LESSER BLACK SERPENTINITE**<br><br>Intermixed mottled light green (tremolite), mid to dark green (serpentinite) and white (calcite) tremolite-serpentinite-calcite rock and much lesser dark green serpentinite; with sparse red-brown sphalerite as small patches, sparse calcite as stringers, veins and small patches, sparse quartz veins associated with calcite, some quartz-calcite veins contain black serpentinite fragments up to about 5cm across.<br><br>The interval has a slush breccia fabric and is particularly brecciated and slightly vuggy (waterworn) between 299.45m and 299.70m.<br><br>BCA is obscure.<br><br>The interval is broken particularly near the vuggy section and in the black serpentinite.<br><br>The contact with the next interval is diffuse. |
| 301.75 | 308.12 | **CHERT**<br><br>Mottled grey, slightly grey-green and slightly pink (axinite)-green "oolitic" chert with trace calcite and quartz as stringers, sparse actinolite and trace serpentine as irregular veins and patches.<br><br>The interval has an "oolitic" texture with spheroids up to about 5mm across.<br><br>BCA is obscure.<br><br>The interval is generally unbroken. |

| from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|
| 286.50 | 287.50 | 0.02 | 0.05 | X | X | 820 | X | X | 830 |
| 287.50 | 288.50 | 0.02 | 0.08 | 40 | X | 2090 | X | X | 660 |
| 288.50 | 289.50 | 0.02 | 0.15 | X | X | 3170 | X | X | 670 |
| 289.50 | 290.50 | 0.02 | 0.05 | X | X | 625 | X | X | 690 |
| 290.50 | 291.50 | 0.02 | 0.05 | 68 | X | 945 | X | X | 970 |
| 291.50 | 292.50 | 0.03 | 0.05 | X | X | 1090 | X | X | 980 |
| 292.50 | 293.50 | 0.02 | 0.05 | X | X | 595 | X | X | 1090 |
| 293.50 | 294.50 | 0.03 | 1.68 | 335 | 28 | >25000 | X | X | 880 |
| 294.50 | 295.50 | 0.02 | 0.10 | 225 | X | 1760 | X | X | 630 |

861115

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is sharp at 65 degrees to the core axis. | | | | | | | | | | |
| **308.12** | **308.55** | **VOLCANICLASTIC OR SILTSTONE** | | | | | | | | | | |
| | | Green (actinolite) and white altered fine grained volcaniclastic or siltstone with common pervasive actinolite and sparse epidote as small patches, sparse black serpentinite as stringers. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp at 65 degrees to the core axis. | | | | | | | | | | |
| **308.55** | **318.47** | **TREMOLITE-SERPENTINITE ROCK** | | | | | | | | | | |
| | | As between 277.18m and 297.38m but with no magnetite but with sparse black serpentine as flecks, trace sphalerite, trace pentlandite as fine flecks. | | | | | | | | | | |
| | | The interval contains rare brecciated and puggy zones up to about 10cm long at about 65 degrees to the core axis. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken except near the brecciated and puggy zones. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| **318.47** | **324.51** | **TREMOLITE-SERPENTINITE ROCK** | | | | | | | | | | |
| | | As between 308.55m and 318.47m but mottled light green in colour and with sparse black serpentine as flecks and stringers, sparse calcite as stringers and veinlets (some with slickensides), sparse magnetite as stringers and small patches. | | | | | | | | | | |
| | | The interval has a brecciated fabric towards 324.51m | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp at 65 degrees to the core axis. | | | | | | | | | | |
| **324.51** | **327.50** | **TREMOLITE-SERPENTINITE ROCK AND SERPENTINITE-CALCITE ROCK** | | | | | | | | | | |
| | | Interbanded rock as between 318.47m and 324.51m and dark green (serpentinite) and white (calcite) serpentinite-calcite rock. | | | | | | | | | | |

861116

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval contains narrow faults, including<br>324.51m to 324.72m: fault at 65 degrees to the core axis<br>325.40m to 326.00m: broken fault | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is extremely broken to rubbly and puggy. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 327.50 | 329.85 | **LIGHT AND DARK SERPENTINITE & SILICATE ROCK (AFTER SERPENTINITE)** | | | | | | | | | | |
| | | Intermixed mottled light and dark green and lesser cream serpentinite and silicate rock (after serpentinite); with common magnetite as stringers; slickensides on some joints. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 329.85 | 344.45 | **SILICATE ROCK (AFTER SERPENTINITE)** | 342.89 | 344.45 | 0.11 | 0.09 | 110 | 62 | 1880 | 210 | X | 1430 |
| | | | 344.45 | 345.57 | 0.03 | 0.05 | 28 | 32 | 900 | X | X | 4330 |
| | | Mottled light to mid green silicate rock (after serpentinite), similar to the interval between 277.18m and 297.38m, with sparse schorl as fine flecks and flecks, sparse calcite as small patches, trace black and green serpentine as stringers, trace brown sphalerite? as flecks and small patches towards 344.45m, trace vivid green silicate? as flecks towards 344.45m; no detectable magnetite or other visible sulphides. | 345.57 | 347.06 | 0.51 | 0.75 | 72 | 190 | 1170 | 4820 | 6 | 2780 |
| | | | 347.06 | 348.00 | 0.03 | 0.05 | X | X | 430 | X | X | 930 |
| | | | 348.00 | 349.02 | 0.54 | 0.25 | 235 | 125 | 2000 | 3500 | 5 | 670 |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 344.45 | 345.57 | **SILICATE-SERPENTINITE ROCK** | | | | | | | | | | |
| | | Mottled cream to green silicate-serpentinite rock with common black sphalerite as flecks, trace green serpentine as stringers. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | | |

861117

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 345.57 | 347.06 | **SILICATE ROCK (AFTER SERPENTINITE?)** | | | | | | | | | | |
| | | Green and green-grey silicate rock (tremolite after serpentinite?) with sparse magnetite as stringers, sparse black serpentine as patches, sparse niccolite-pentlandite intergrowths as flecks. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 347.06 | 349.02 | **SILICATE ROCK (AFTER SERPENTINITE?)** | | | | | | | | | | |
| | | mottled cream and green-cream silicate rock (after serpentinite?) with sparse black and green serpentine as flecks and small patches, trace brown sphalerite? as flecks, minor pentlandite-niccolite-pyrrhotite as flecks and small patches and lace veining, trace magnetite as flecks and stringers. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |
| 349.02 | 353.62 | **TREMOLITE-CALCITE-SERPENTINITE ROCK** | 349.02 | 350.02 | 0.17 | 0.07 | 130 | 72 | 1570 | 1390 | X | 850 |
| | | | 350.02 | 351.02 | 0.06 | 1.79 | 905 | 42 | >25000 | 280 | X | 360 |
| | | Mottled light green (tremolite), white (calcite) and much lesser black (serpentinite) tremolite-calcite-serpentinite rock, very brecciated with fragments up to 10cm across: fault. | 351.02 | 352.02 | 0.09 | X | X | 42 | 1010 | 550 | X | 770 |
| | | | 352.02 | 353.62 | 0.14 | X | X | 58 | 1080 | 1100 | X | 6040 |
| | | The interval is moderately vuggy (waterworn) and puggy in part. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is extremely broken to puggy and rubbly. | | | | | | | | | | |
| | | The contact with the next interval is sharp at 60 degrees to the core axis. | | | | | | | | | | |
| 353.62 | 354.39 | **SILICATE ROCK (AFTER SERPENTINITE)** | 353.62 | 354.39 | 0.16 | 0.26 | X | 58 | 280 | 780 | X | 1620 |
| | | Green and grey silicate rock (tremolite? after serpentinite) with common magnetite as flecks, stringers and lace veining. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |

86111S

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| 354.39 | 362.15 | **SILICATE ROCK (AFTER SERPENTINITE) & MAGNETITE-SERPENTINITE ROC** | 354.39 | 355.39 | 0.29 | 0.22 | 56 | 165 | 380 | X | X | 1410 |
| | | | 355.39 | 356.39 | 0.29 | 0.37 | 350 | 180 | 660 | X | 6 | 1870 |
| | | Intermixed mottled light green (tremolite) and light grey (diopside?) silicate rock (after | 356.39 | 357.39 | 0.26 | 0.19 | 36 | 140 | 420 | X | 6 | 1950 |
| | | serpentinite) with sparse magnetite as flecks and stringers and black green magnetite- | 357.39 | 358.39 | 0.25 | 0.17 | 36 | 110 | 185 | X | X | 1360 |
| | | serpentinite rock; with sparse pentlandite as fine flecks, sparse puggy white serpentine | 358.39 | 359.39 | 0.31 | 0.25 | 30 | 130 | 280 | X | X | 1920 |
| | | as veinlets. | 359.39 | 360.39 | 0.33 | 0.23 | X | 165 | 370 | X | X | 2130 |
| | | | 360.39 | 361.39 | 0.19 | 0.13 | X | 110 | 210 | X | X | 1730 |
| | | BCA is obscure. | 361.39 | 362.15 | 0.20 | 0.11 | X | 135 | 260 | X | 5 | 2360 |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval si gradational (lithology). | | | | | | | | | | |
| 362.15 | 363.47 | **SILICATE ROCK (AFTER SERPENTINITE)** | 362.15 | 363.47 | 0.15 | 0.12 | X | 52 | 175 | 230 | X | 800 |
| | | As between 353.62m and 354.39m plus trace niccolite or pyrrhotite. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is unbroken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 363.47 | 366.41 | **SILICATE ROCK (AFTER SERPENTINITE?)** | 363.47 | 364.47 | 0.06 | X | X | 32 | 220 | X | X | 500 |
| | | | 364.47 | 365.47 | 0.09 | X | X | 40 | 290 | 250 | X | 720 |
| | | As between 347.06m and 349.02m but no pentlandite but with sparse black sphalerite as | 365.47 | 366.41 | 0.12 | X | X | 52 | 210 | 180 | X | 700 |
| | | flecks. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is unbroken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology/mineralisation). | | | | | | | | | | |
| 366.41 | 375.80 | **SILICATE ROCK (AFTER SERPENTINITE) & MAGNETITE-SERPENTINITE ROC** | 366.41 | 367.41 | 0.25 | 0.12 | X | 98 | 215 | X | X | 2010 |
| | | | 367.41 | 368.41 | 0.86 | 0.72 | X | 230 | 280 | 110 | X | 1840 |
| | | As between 354.39m and 362.15m plus sparse brown-red sphalerite as flecks and small | 368.41 | 369.41 | 0.14 | 0.06 | X | 68 | 155 | X | X | 1800 |
| | | patches, sparse pentlandite-pyrrhotite intergrowths as flecks, trace calcite as stringers, | 369.41 | 370.41 | 0.15 | 0.08 | X | 64 | 115 | X | X | 1150 |
| | | sparse to common green to grey serpentine as veinlets. | 370.41 | 371.41 | 0.40 | 0.42 | 82 | 155 | 295 | X | X | 3550 |
| | | | 371.41 | 372.41 | 0.48 | 0.50 | 325 | 185 | 300 | X | X | 2670 |
| | | BCA is obscure. | 372.41 | 373.61 | 0.30 | 0.37 | 200 | 130 | 1100 | X | 4 | 2070 |

861119

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 373.61 | 374.61 | 0.74 | 0.55 | X | 220 | 230 | 1280 | X | 2480 |
| | | The interval is broken to extremely broken near the serpentine veinlets. | 374.61 | 375.80 | 0.39 | 0.34 | X | 135 | 245 | 160 | X | 3400 |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 375.80 | 377.64 | **SILICATE ROCK AND LESSER MAGNETITE-SERPENTINITE ROCK** | 375.80 | 376.80 | 0.75 | 1.10 | X | 245 | 265 | 1290 | X | 1550 |
| | | | 376.80 | 377.64 | 0.11 | 2.80 | X | 44 | 440 | 110 | X | 3240 |
| | | Intermixed mottled grey-green and grey (tremolite) and mid green (epidote?) silicate rock with sparse magnetite as stringers and lesser black magnetite-serpentinite rock; with sparse pentlandite as stringers and small patches in the silicate rock, sparse niccolite? as flecks as stringers and small patches in magnetite-serpentinite rock. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 377.64 | 378.83 | **SILICATE ROCK (AFTER SERPENTINITE)** | 377.64 | 378.83 | 0.14 | 0.49 | X | 66 | 255 | 480 | X | 1520 |
| | | As between 362.15m and 363.47m but with no visible sulphides but with trace magnetite as stringers, trace vivid green silicate? as flecks, sparse pale brown serpentine as veinlets. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | | |
| 378.83 | 382.40 | **BRECCIA AND BRECCIATED ROCK** | 378.83 | 379.83 | 0.09 | 0.56 | X | 60 | 245 | X | X | 1650 |
| | | | 379.83 | 380.83 | 0.12 | 0.30 | X | 70 | 250 | X | X | 940 |
| | | Intermixed breccia and brecciated rock: breccia of cream and cream-brown fragments up to 5cm across in a green-brown groundmass; brecciated rock is green-cream brecciated tremolite-silicate rock; with minor black serpentine as stringers and lace veining, minor pale brown interstitial serpentine or clay, sparse calcite as small patches, sparse vivid green silicate? as flecks. | 380.83 | 381.83 | 0.10 | 0.25 | X | 70 | 235 | X | X | 1070 |
| | | | 381.83 | 382.40 | 0.17 | 0.08 | X | 98 | 500 | 150 | X | 2260 |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is extremely broken to rubbly and puggy. | | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | | |

861120

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A032

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Ag ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 382.40 | 385.10 | **SILICATE ROCK** | 382.40 | 383.46 | 0.09 | X | X | 66 | 290 | X | X | 1320 |
| | | | 383.46 | 385.10 | 0.12 | 0.12 | X | 56 | 250 | X | X | 880 |
| | | Mottled green, cream and lesser grey silicate rock with sparse vivid green silicate? as flecks, sparse black serpentine as ragged flecks, sparse calcite as stringers and small patches. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | | |
| 385.10 | 388.25 | **SILICATE ROCK** | 385.10 | 386.10 | 0.66 | 0.06 | 62 | 255 | 275 | 7640 | X | 1300 |
| | | | 386.10 | 387.10 | 0.10 | 0.36 | X | 84 | 455 | 110 | X | 1630 |
| | | Mottled mid to dark green silicate rock with sparse brown sphalerite as flecks and small patches, sparse to minor magnetite as stringers and flecks accumulating to patches in part, trace pentlandite as flecks. | 387.10 | 388.25 | 0.11 | 0.12 | X | 66 | 215 | X | X | 1100 |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | | |
| 388.25 | 396.50 | **SILICATE ROCK AND LESSER QUARTZ ROCK** | 388.25 | 389.25 | 0.03 | X | X | 34 | 330 | X | X | 850 |
| | | Mottled cream-green (tremolite?) and lesser brown (epidote?) rock and lesser grey and black quartz rock: silicate rock is sugary-crystalline in patches; quartz rock has a remnant pebbly? fabric; with trace to sparse vivid green silicate? as flecks and stringers, parts of the tremolite-epidote rock are calcareous; this is a very altered rock. | | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | | |
| | | **END OF HOLE AT 396.5m** | | | | | | | | | | |

861121

| | | | at | mag brg | AMG brg as read | AMG brg corrected | AMG brg as used | dip | comments |
|---|---|---|---|---|---|---|---|---|---|
| **hole no** | A033 | | | | | | | | |
| **final depth** | 316.5 | m | 0 | - | - | 187.5 | 187.5 | -44 | Collar bearing and dip are as provided by surveyor. |
| | | | 25 | - | - | - | 187 | -45 | All downhole bearings and dips were surveyed using a downhole camera. |
| **east** | 355,667.64 | AMG | 51.7 | 172 | 185 | 187.5 | 187 | -46 | Down-hole bearings as read have been corrected for local magnetic error by adding |
| **north** | 5,357,516.06 | AMG | 100 | 178 | 191 | 193.5 | 188.5 | -46 | 2.5 degrees (determined by comparing the true collar bearing as determined by theodolite |
| **rl** | 2,186.52 | m | 151 | 180 | 193 | 195.5 | 189 | -46 | survey with the first down-hole camera survey). |
| | | | 203 | 188 | 201 | 203.5 | 189 | -46 | Obviously erratic down-hole bearings have been replaced by interpolation or |
| **HW** | 0.0m to 1.5m | | 251 | 185 | 198 | 200.5 | 190 | -46 | extrapolation to fit the general trend of bearing changes in the hole. |
| **HQ** | 1.5m to 93.0m | | 310.5 | 188 | 201 | 203.5 | 190 | -46.5 | For more information regarding the protocol used to correct the bearings, refer to the |
| **NQ** | 93.0m to 316.5m | | | | | | | | memo "Avebury project - down-hole surveys" (McKeown, 12 October 2000). |
| **commenced** | 1-Mar-01 | | | | | | | | |
| **completed** | 13-Mar-01 | | | | | | | | |
| **logged by** | Mick McKeown | | | | | | | | |
| **drilled by** | Almac Pty Ltd | | | | | | | | |
| **analyses by** | Analabs Pty Ltd | | | | | | | | |

**COMMENTS**

Note that 2000m has been added to the actual RL.

Hole was stopped in serpentinite.

**SIGNIFICANT INTERSECTIONS**

| formation | comment | from m | to m | length m | Ni % | S % | Co ppm | Cu ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cum | serpentinite | 166.69 | eoh | | | | | | | | |
| | nickel mineralisation | 166.69 | 189.73 | 23.04 | 0.84 | 0.79 | 95 | 243 | 687 | X | 1653 |

861122

| A033 | at | bearing as used AMG | dip | from m | to m | down-hole interval | horizontal interval m | vertical interval m | east shift | north shift | easting AMG m | northing AMG m | RL m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **HOLE PATH** | | | | | | | | | | | | | |
| | | | | | collar | | | | | | 355,667.6 | 5,357,516.1 | 2,186.5 |
| | 0.0 | 187.5 | -44.0 | 0.0 | 25.9 | 25.9 | 18.6 | -18.0 | -2.4 | -18.4 | 355,665.2 | 5,357,497.6 | 2,168.6 |
| | 51.7 | 187 | -46.0 | 25.9 | 75.9 | 50.0 | 34.7 | -36.0 | -4.2 | -34.5 | 355,661.0 | 5,357,463.2 | 2,132.6 |
| | 100.0 | 188.5 | -46.0 | 75.9 | 125.5 | 49.7 | 34.5 | -35.7 | -5.1 | -34.1 | 355,655.9 | 5,357,429.0 | 2,096.9 |
| | 151.0 | 189 | -46.0 | 125.5 | 177.0 | 51.5 | 35.8 | -37.0 | -5.6 | -35.3 | 355,650.3 | 5,357,393.7 | 2,059.8 |
| | 203.0 | 189 | -46.0 | 177.0 | 227.0 | 50.0 | 34.7 | -36.0 | -5.4 | -34.3 | 355,644.9 | 5,357,359.4 | 2,023.9 |
| | 251.0 | 190 | -46.0 | 227.0 | 280.8 | 53.8 | 37.3 | -38.7 | -6.5 | -36.8 | 355,638.4 | 5,357,322.6 | 1,985.2 |
| | 310.5 | 190 | -46.5 | 280.8 | 316.5 | 35.8 | 24.6 | -25.9 | -4.3 | -24.2 | 355,634.1 | 5,357,298.4 | 1,959.3 |
| check sums and differences | | | | | | 316.5 | 220.3 | -227.2 | -33.5 | -217.7 | -33.5 | -217.7 | -227.2 |
| **northern serpentinite contact** | | | | | 166.69 | | | | | | 355,651.4 | 5,357,400.8 | 2,067.3 |
| **centre of ore** | | | | | 178.21 | | | | | | 355,650.2 | 5,357,392.9 | 2,059.0 |
| **southern ore contact** | | | | | 189.73 | | | | | | 355,648.9 | 5,357,385.0 | 2,050.7 |
| | | | | | 288.8 | | | | | | 355,637.4 | 5,357,317.2 | 1,979.4 |

861123

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 1.50 | not cored | | | | | | | | | |
| 1.50 | 13.80 | **WEATHERED ROCK**<br><br>Extremely broken to rubbly very weathered grey rock with abundant ironstaining on joints and fractures, abundant red brown clay; note core loss.<br><br>BCA is obscure.<br><br>The interval is rubbly.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 13.80 | 25.50 | **CHERT AND CLAYSTONE (AFTER ROCK)**<br><br>Very broken, light to medium grey brecciated/ruptured chert and red-brown claystone (after rock); with common ironstaining on joints and fractures and as stringers; note core loss.<br><br>The chert is brecciated and bedding in the chert is ruptured.<br><br>BCA is obscure.<br><br>The interval is very broken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 25.50 | 51.70 | **CHERT AND SKARNISED CHERT**<br><br>Intermixed grey and cream-grey brecciated chert and dark green (actinolite), light green and lesser pale purple (axinite) skarnised chert; with common interstitial actinolite in brecciated chert, sparse quartz as stringers, sparse epidote as small patches associated with actinolite, sparse pervasive axinite associated with actinolite in skarnised chert, sparse ironstaining and wad? on some joints.<br><br>The interval is vuggy and extremely broken to puggy and rubbly; note core loss.<br><br>BCA is obscure.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 51.70 | 55.60 | **VOLCANICLASTIC AND MUCH LESSER ACTINOLITE SKARN**<br><br>Intermixed dark brown fine to medium grained volcaniclastic and much lesser actinolite skarn; volcaniclastic with trace ironstaining on joints and fractures, trace crystalline pyrite on joints, sparse quartz as stringers and blebs, sparse actinolite as stringers; | | | | | | | | | |

861124

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | skarn with sparse epidote? as blebs and small patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is extremely broken to rubbly and puggy. | | | | | | | | | |
| | | The contact with the next interval is | | | | | | | | | |
| **55.60** | **82.10** | **VOLCANICLASTIC AND SILTSTONE AND LESSER CHERT** | | | | | | | | | |
| | | Interbedded light to dark grey fine grained volcaniclastic and siltstone and lesser light grey and light green-grey chert; with sparse actinolite as stringers, lace veining and veins, sparse pyrrhotite as flecks, sparse quartz as veinlets and veins, sparse epidote as stringers, veinlets and veins, trace crystalline pyrite on joints, sparse ironstaining on joints between 75.m and 82.1m. | | | | | | | | | |
| | | The interval is vuggy between about 78.5m and 78.7m. | | | | | | | | | |
| | | BCA at 72.9m = 45 degrees | | | | | | | | | |
| | | The interval is extremely broken with some core loss: see core recoveries and RQDs. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **82.10** | **93.85** | **ACTINOLITE-EPIDOTE SKARN AND MUCH LESSER CHERT** | | | | | | | | | |
| | | Mottled dark (actinolite) and lesser light (epidote) green skarn and much lesser cream and purple-cream chert remnants: brecciated fabric with chert remnants in skarn matrix: actinolite pervasive and as stringers and veinlets, epidote as stringers and small patches and massive over last 10cm of the interval, sparse axinite as slightly vuggy stringers and veins and pervasive in the chert in part, trace ironstaining on some joints. | | | | | | | | | |
| | | BCA at 86.6m = 45 degrees | | | | | | | | | |
| | | The interval is very broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **93.85** | **94.75** | **VOLCANICLASTIC** | | | | | | | | | |
| | | Dark black-grey very fine grained volcaniclastic with sparse actinolite as stringers and small patches, trace green serpentine on joints. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |

861125

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **94.75** | **113.57** | **SKARNISED CHERT AND CHERT** | | | | | | | | | |
| | | Mottled light and dark green skarnised chert and cream, brown and grey chert; the skarnised chert is hydraulically brecciated with common to abundant actinolite interstitial and as stringers, sparse to minor epidote as small patches and veins, trace pervasive axinite; with trace black serpentine? (chlorite?) as flecks in part, sparse quartz as stringers,, sparse red and red-brown sphalerite as flecks and stringers from 111.90m to 113.57m . | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken to very broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **113.57** | **117.00** | **VOLCANICLASTIC** | | | | | | | | | |
| | | Mottled brown (phlogopite) and green (actinolite)-grey fine grained volcaniclastic; with common pervasive actinolite, sparse phlogopite pervasive and as stringers and veinlets, sparse quartz as stringers, trace epidote as small irregular patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **117.00** | **159.97** | **SKARNISED CHERT AND CHERT** | | | | | | | | | |
| | | As between 94.75m and 113.57m. | | | | | | | | | |
| | | The interval has a remnant fine to medium grained volcaniclastic texture in part. | | | | | | | | | |
| | | 123.25m to 123.35m: quartz vein with sparse grey rock fragments: fault? | | | | | | | | | |
| | | BCA at 139.4m = 50 degrees<br>BCA at 158.8m = 60 degrees<br>BCA at 159.1m = 45 degrees | | | | | | | | | |
| | | The interval is very broken to extremely broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |

861126

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 159.97 | 165.52 | **VOLCANICLASTIC AND LESSER CHERT**<br><br>Intermixed dark green (actinolite) and dark grey fine grained volcaniclastic with abundant actinolite pervasive and as stringers, veinlets and veins and lesser mottled cream-green chert; with trace quartz as stringers, sparse green serpentine as flecks and stringers, sparse to minor epidote as stringers and small patches, sparse schorl? as stringers, and irregular small patches.<br><br>BCA is obscure.<br><br>The interval is very broken to extremely broken.<br><br>The contact with the next interval is sharp but broken. | | | | | | | | | |
| 165.52 | 166.69 | **SERPENTINITE AND CALCITE-TREMOLITE ROCK**<br><br>Intermixed green-grey serpentinite? (altered siltstone?) and large patches of calcite-tremolite rock; with serpentine as stylolites.<br><br>BCA is obscure.<br><br>The interval is broken.<br><br>The contact with the next interval is sharp but broken. | 165.69 | 166.69 | 0.14 | 0.06 | 32 | 96 | 645 | X | 910 |
| | | | 166.69 | 167.69 | 1.47 | 1.55 | 315 | 335 | 505 | X | 250 |
| | | | 167.69 | 168.69 | 1.64 | 1.63 | 275 | 395 | 425 | X | 980 |
| | | | 168.69 | 169.66 | 0.16 | 0.29 | 30 | 90 | 1220 | 150 | 1530 |
| | | | 169.66 | 170.66 | 1.68 | 2.05 | 50 | 450 | 970 | 160 | 1420 |
| | | | 170.66 | 171.66 | 0.30 | 0.27 | 145 | 105 | 625 | X | 1800 |
| | | | 171.66 | 172.94 | 0.65 | 0.61 | 170 | 205 | 610 | X | 1660 |
| | | | 172.94 | 173.94 | 0.61 | 0.64 | 105 | 195 | 855 | X | 610 |
| | | | 173.94 | 174.94 | 0.82 | 0.73 | 48 | 270 | 420 | X | 480 |
| | | | 174.94 | 175.94 | 1.08 | 1.04 | 70 | 335 | 1380 | 110 | 930 |
| | | | 175.94 | 176.94 | 0.81 | 0.67 | 36 | 250 | 750 | X | 1940 |
| 166.69 | 167.05 | **SERPENTINITE AND CALCITE-TREMOLITE ROCK AND PUG AND BRECCIA**<br><br>As between 165.52m and 166.69m plus green serpentinite as pug and breccia with fragments up to about 1cm across.<br><br>BCA is obscure.<br><br>The interval is rubbly and puggy.<br><br>The contact with the next interval is sharp but broken. | 166.69 | 167.69 | 1.47 | 1.55 | 315 | 335 | 505 | X | 250 |
| | | | 167.69 | 168.69 | 1.64 | 1.63 | 275 | 395 | 425 | X | 980 |
| | | | 168.69 | 169.66 | 0.16 | 0.29 | 30 | 90 | 1220 | 150 | 1530 |
| 167.05 | 169.66 | **SILICATE ROCK (AFTER SERPENTINITE) AND PUG AND BRECCIA**<br><br>Intermixed mottled light and dark green silicate rock (tremolite? after serpentinite) with sparse pentlandite as flecks and small patches, trace to sparse magnetite as flecks and stringers and broken puggy serpentinite breccia with trace magnetite.<br><br>BCA is obscure.<br><br>The interval is broken to rubbly and puggy. | | | | | | | | | |

861127

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| 169.66 | 172.94 | **SILICATE ROCK (AFTER SERPENTINITE) AND BLACK SERPENTINITE** | 169.66 | 170.66 | 1.68 | 2.05 | 50 | 450 | 970 | 160 | 1420 |
| | | | 170.66 | 171.66 | 0.30 | 0.27 | 145 | 105 | 625 | X | 1800 |
| | | Intermixed mottled green silicate rock as in the previous interval with sparse magnetite as flecks and stringers and dark grey black serpentinite with common magnetite as flecks and small patches; with sparse to minor pentlandite as flecks accumulating to small patches tending to be more common in the serpentinite, sparse chrysotilic serpentine as stringers in the serpentinite, trace calcite as veinlets. | 171.66 | 172.94 | 0.65 | 0.61 | 170 | 205 | 610 | X | 1660 |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 172.94 | 175.94 | **BLACK SERPENTINITE** | 172.94 | 173.94 | 0.61 | 0.64 | 105 | 195 | 855 | X | 610 |
| | | | 173.94 | 174.94 | 0.82 | 0.73 | 48 | 270 | 420 | X | 480 |
| | | Black serpentinite as in the previous interval. | 174.94 | 175.94 | 1.08 | 1.04 | 70 | 335 | 1380 | 110 | 930 |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 175.94 | 179.32 | **SILICATE ROCK (AFTER SERPENTINITE) AND BLACK SERPENTINITE** | 175.94 | 176.94 | 0.81 | 0.67 | 36 | 250 | 750 | X | 1940 |
| | | | 176.94 | 177.94 | 0.46 | 0.42 | 44 | 130 | 695 | X | 1450 |
| | | As between 169.66m and 172.94m and with pentlandite flecks and small patches and as lace networks in part. | 177.94 | 179.32 | 1.27 | 1.09 | 125 | 365 | 740 | X | 2320 |
| | | BCA is obscure. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is very broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 179.32 | 181.27 | **SILICATE ROCK (AFTER SERPENTINITE)** | 179.32 | 180.32 | 0.15 | 0.12 | X | 48 | 325 | X | 1320 |
| | | | 180.32 | 181.27 | 0.12 | 0.06 | X | 42 | 150 | X | 980 |
| | | Mottled grey and cream silicate rock (after serpentinite) with sparse to minor magnetite as flecks, blebs, stringers and veinlets, trace pentlandite as flecks and blebs. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |

861128

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **181.27** | **183.35** | **SILICATE ROCK AND BLACK SERPENTINITE** | 181.27 | 182.27 | 0.18 | 0.12 | X | 54 | 260 | X | 2240 |
| | | | 182.27 | 183.35 | 0.51 | 0.41 | 26 | 145 | 580 | X | 1310 |
| | | Intermixed silicate rock as between 179.32m and 181.27m and black serpentinite with sparse to minor magnetite as flecks, blebs, stringers and veinlets, sparse pentlandite as flecks and blebs tending to be more common in black serpentinite. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **183.35** | **185.15** | **BLACK SERPENTINITE** | 183.35 | 184.35 | 0.74 | 0.61 | 54 | 220 | 495 | X | 1990 |
| | | | 184.35 | 185.15 | 1.03 | 0.86 | 230 | 310 | 340 | X | 2280 |
| | | Black serpentinite with common magnetite as stringers and small patches, minor pentlandite as flecks, stringers and, in part, lace networks. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **185.15** | **186.19** | **SILICATE ROCK (AFTER SERPENTINITE)** | 185.15 | 186.19 | 0.19 | 0.12 | 34 | 66 | 225 | X | 2560 |
| | | Mottled green-cream and much lesser grey silicate rock (after serpentinite) with minor magnetite as flecks, stringers and small patches tending to be associated with the grey rock, sparse pentlandite as flecks and stringers throughout. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **186.19** | **189.73** | **BLACK SERPENTINITE** | 186.19 | 187.19 | 1.03 | 0.94 | 98 | 305 | 1450 | 190 | 3040 |
| | | | 187.19 | 188.19 | 0.83 | 0.72 | 46 | 260 | 680 | 190 | 1130 |
| | | | 188.19 | 189.73 | 2.05 | 1.79 | 110 | 570 | 1130 | 260 | 3160 |
| | | Black serpentinite with common magnetite as flecks, stringers and small patches, minor pentlandite as flecks, stringers and small patches forming networks in part, sparse calcite as stringers and veinlets. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |

861129

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is gradational (lithology). | | | | | | | | | |
| **189.73** | **203.86** | **SILICATE ROCK AND LESSER BLACK SERPENTINITE-MAGNETITE** | 189.73 | 191.00 | 0.50 | 0.46 | 225 | 140 | 340 | X | 860 |
| | | | 191.00 | 192.00 | 0.35 | 0.26 | 52 | 110 | 260 | X | 1630 |
| | | Intermixed mottled grey and green-grey silicate rock (after serpentinite) and lesser black magnetite-serpentinite with common magnetite as flecks, stringers and small patches mainly associated with black serpentinite, sparse pentlandite as flecks tending to be associated with the black serpentinite. | 192.00 | 193.00 | 0.48 | 0.41 | 28 | 170 | 285 | X | 1280 |
| | | | 193.00 | 194.00 | 0.18 | 0.10 | X | 60 | 195 | X | 1130 |
| | | | 194.00 | 195.00 | 0.33 | 0.23 | X | 125 | 210 | X | 1170 |
| | | | 195.00 | 196.00 | 0.25 | 0.14 | X | 100 | 170 | X | 1260 |
| | | | 196.00 | 197.00 | 0.18 | 0.07 | X | 64 | 150 | X | 970 |
| | | The black serpentinite occurs as remnant? corroded? patches up to 50cm long. | 197.00 | 198.00 | 0.17 | 0.09 | X | 66 | 215 | X | 1120 |
| | | | 198.00 | 199.00 | 0.23 | 0.15 | X | 94 | 380 | X | 1170 |
| | | BCA is obscure. | 199.00 | 200.00 | 0.58 | 0.48 | X | 195 | 365 | X | 1400 |
| | | | 200.00 | 201.00 | 0.27 | 0.17 | X | 96 | 215 | X | 960 |
| | | The interval is broken. | 201.00 | 202.00 | 0.26 | 0.16 | X | 88 | 170 | X | 1230 |
| | | | 202.00 | 203.00 | 0.43 | 0.31 | X | 160 | 225 | X | 1390 |
| | | The contact with the next interval is gradational (lithology). | 203.00 | 203.86 | 0.18 | 0.09 | X | 72 | 220 | X | 1380 |
| | | | 203.86 | 204.86 | 0.49 | 0.36 | X | 165 | 300 | X | 3190 |
| **203.86** | **205.79** | **BLACK SERPENTINITE** | 204.86 | 205.79 | 1.18 | 0.92 | X | 340 | 235 | X | 1990 |
| | | Black serpentinite with abundant magnetite as stringers and small patches, minor pentlandite as flecks and stringers forming networks in part, sparse green-white silicate rock as small patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **205.79** | **213.23** | **SILICA RICH ROCK (AFTER SERPENTINITE)** | 205.79 | 206.79 | 0.10 | 0.07 | X | 32 | 685 | X | 680 |
| | | Mottled cream, light and dark green and grey silica rich rock (after sedimentary rock rather than serpentinite?) and rare inclusions of black serpentinite with sparse black silicate as fine flecks, minor quartz as veins and patches; this is a very altered rock. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is diffuse. | | | | | | | | | |

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 213.23 | 215.24 | **SILICATE ROCK (AFTER SERPENTINITE) AND BLACK SERPENTINITE**<br><br>Intermixed black serpentinite with sparse green crystalline tremolite as small patches, common magnetite as flecks and small patches and much lesser mottled grey silicate rock (after serpentinite) with sparse magnetite as flecks and stringers; with trace pentlandite as fine flecks tending to occur more commonly in the black serpentinite.<br><br>BCA is obscure.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is diffuse. | | | | | | | | | |
| 215.24 | 288.80 | **SILICATE ROCK (AFTER SERPENTINITE) AND BLACK SERPENTINITE**<br><br>Intermixed mottled light green, cream and grey-green silicate rock (after serpentinite?) and black serpentinite with common to abundant magnetite as stringers and small patches becoming less common towards the end of the interval; the black serpentinite contains occasional inclusions of green and green-cream silicate rock; with sparse red and red-brown sphalerite as flecks and patches throughout; this is a very altered rock.<br><br>The silicate rock has a conglomeratic texture.<br><br>BCA is obscure.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 288.80 | 292.07 | **CHERT, ACTINOLITE ROCK AND TALC ROCK**<br><br>Light grey chert (fine grained silica rock), dark green actinolite rock and mottled dark green and brown talc rock; with sparse axinite pervasive in the chert in part, sparse epidote as small patches in the actinolite rock, minor tremolite as crystalline patches in the talc rock.<br><br>BCA is obscure.<br><br>The interval is generally unbroken.<br><br>The contact with the next interval is gradational (lithology). | | | | | | | | | |
| 292.07 | 298.47 | **SILICA ROCK**<br><br>Mottled light grey and pale brown-grey silica rock with sparse quartz as stringers and | | | | | | | | | |

861131

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | veinlets, trace pervasive axinite, sparse dark green mineral as brown "oolites" in part, sparse epidote as small patches. | | | | | | | | | |
| | | The interval has an oolitic texture in part with fine grained oolites up to about 5mm across. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **298.47** | **301.57** | **DARK SERPENTINITE** | | | | | | | | | |
| | | Green, green-grey, brown and black serpentinite with sparse magnetite as rare patches, sparse brown-green talc as patches, minor white silicate as patches and lace veining, sparse brown silicate (phosphate?) as stringers, sparse pyrrhotite as stringers. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is extremely broken. | | | | | | | | | |
| | | The contact with the next interval is sharp but broken. | | | | | | | | | |
| **301.57** | **302.40** | **MASSIVE CALCITE** | | | | | | | | | |
| | | Massive white calcite with minor green-black serpentine near first contact, sparse brown-red sphalerite as small patches, sparse talc as stylolites and small patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |
| | | The contact with the next interval is sharp but irregular. | | | | | | | | | |
| **302.40** | **304.11** | **CALCITE-QUARTZ-FELDSPAR?-AMPHIBOLE ROCK** | | | | | | | | | |
| | | Coarse grained white calcite, glassy crystalline quartz, white feldspar? and black and dark green amphibole? rock with sparse vivid green silicate as flecks, sparse brown silicate? associated with the green mineral, sparse brown sphalerite as flecks and small patches. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is generally unbroken. | | | | | | | | | |

861132

**COMPANY** Allegiance Mining NL
**PROJECT** Avebury Project
**HOLE NUMBER** A033

| from m | to m | DESCRIPTION | from m | to m | Ni % | S % | Cu ppm | Co ppm | Zn ppm | As ppm | Cr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The contact with the next interval is diffuse. | | | | | | | | | |
| 304.11 | 313.80 | **CALCITE-QUARTZ-FELDSPAR?-AMPHIBOLE ROCK** | | | | | | | | | |
| | | As between 302.40m and 304.11m but with only trace to sparse sphalerite; the interval becomes fine grained towards the end of the interval. | | | | | | | | | |
| | | BCA is obscure. | | | | | | | | | |
| | | The interval is broken. | | | | | | | | | |
| | | The contact with the next interval is sharp at 80 degrees to the core axis. | | | | | | | | | |
| 313.80 | 316.50 | **BRECCIA AND PUG: FAULT** | | | | | | | | | |
| | | Light to dark grey serpentinite fragments up to about 2cm across in grey to black clay and serpentinite pug: fault. | | | | | | | | | |
| | | The interval is banded at about 70 to 80 degrees to the core axis. | | | | | | | | | |
| | | The interval is extremely broken to puggy and rubbly. | | | | | | | | | |
| | | **END OF HOLE AT 316.50m** | | | | | | | | | |

861133

# APPENDIX 3

## AVEBURY and EAST AVEBURY LABORATORY ASSAY SHEETS

861134

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018280
Your reference : **143650**
Project code : Drill Core
Date received : 08/12/00
Date reported : 18/12/00

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 4
Number of Samples : 49
First Sample : A027 56.0-57.0
Last Sample : A027 285.8-287.0

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 18/12/00 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Queensway A027 assays

Remarks :

Authorised by .....
~~On behalf of:~~

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861135

ANALABS

Our reference : BU018280
Your reference : **143650**
Project code : Drill Core
Report date : 18/12/00
Report status : Final
Page : 1 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | Cr | Zn | As |
|---|---|---|---|---|---|---|
| A027 56.0-57.0 | 125 | 60 | 62 | 190 | 210 | <100 |
| A027 57.0-58.0 | 145 | 46 | 66 | 280 | 195 | <100 |
| A027 70.0-71.0 | 94 | 175 | 50 | 120 | 135 | <100 |
| A027 71.0-72.0 | 110 | 200 | 54 | 170 | 275 | <100 |
| A027 79.0-80.0 | 96 | 355 | 74 | 120 | 170 | <100 |
| A027 80.0-81.0 | 82 | 94 | 50 | 160 | 74 | <100 |
| A027 81.0-82.0 | 82 | 255 | 58 | 130 | 86 | <100 |
| A027 82.0-83.0 | 105 | 105 | 88 | 110 | 165 | <100 |
| A027 83.0-84.0 | 115 | 52 | 66 | 210 | 110 | <100 |
| A027 84.0-85.0 | 140 | 72 | 60 | 240 | 110 | <100 |
| A027 85.0-86.0 | 155 | 115 | 78 | 200 | 115 | <100 |
| A027 86.0-87.0 | 200 | 170 | 100 | 140 | 145 | <100 |
| A027 87.0-88.0 | 135 | 78 | 165 | 110 | 120 | 140 |
| A027 88.0-89.0 | 105 | 130 | 62 | 140 | 92 | <100 |
| A027 89.0-90.0 | 88 | 110 | 44 | 120 | 84 | <100 |
| A027 90.0-91.0 | 100 | 115 | 56 | 130 | 92 | <100 |
| A027 91.0-92.0 | 125 | 125 | 56 | 140 | 90 | <100 |
| A027 92.0-93.0 | 130 | 46 | 54 | 150 | 86 | <100 |
| A027 93.0-94.0 | 110 | 88 | 50 | 150 | 94 | <100 |
| A027 94.0-95.0 | 74 | 44 | 32 | 120 | 94 | <100 |
| A027 95.0-96.0 | 74 | 50 | 40 | 110 | 68 | <100 |
| A027 96.0-97.0 | 135 | 44 | 60 | 120 | 86 | <100 |
| A027 104.0-105.0 | 78 | 88 | 38 | 110 | 98 | <100 |
| A027 105.0-106.0 | 105 | 86 | 48 | 150 | 76 | <100 |
| A027 106.0-107.0 | 110 | 82 | 46 | 140 | 74 | <100 |
| A027 107.0-108.0 | 96 | 215 | 64 | 110 | 100 | <100 |
| A027 211.0-212.0 | 345 | <25 | 60 | 450 | 175 | <100 |
| A027 212.0-213.4 | 1080 | 675 | 80 | 1380 | 250 | <100 |
| A027 213.4-214.4 | 400 | <25 | 52 | 580 | 235 | <100 |
| A027 220.0-221.0 | 250 | <25 | 52 | 1450 | 220 | <100 |
| A027 221.0-222.0 | 280 | 140 | 52 | 470 | 150 | <100 |
| A027 222.0-223.0 | 225 | <25 | 32 | 980 | 145 | <100 |
| A027 223.0-224.0 | 510 | <25 | 42 | 1080 | 150 | <100 |
| A027 224.0-225.0 | 390 | <25 | 46 | 990 | 175 | <100 |
| A027 252.7-253.5 | 1100 | 3200 | 225 | 2300 | 575 | <100 |
| A027 258.5-259.5 | 295 | 160 | 50 | 480 | 150 | <100 |
| A027 261.1-261.4 | 480 | 615 | 130 | 1730 | 145 | <100 |
| A027 263.5-265.0 | 84 | 225 | 68 | <100 | 76 | <100 |
| A027 265.0-266.5 | 110 | 240 | 40 | <100 | 74 | <100 |
| A027 266.5-268.0 | 84 | 440 | 66 | 100 | 170 | <100 |
| A027 268.0-269.5 | 88 | 920 | 78 | <100 | 235 | <100 |
| A027 269.5-271.0 | 50 | 185 | 36 | <100 | 115 | <100 |
| A027 271.0-272.5 | 300 | 255 | 86 | <100 | 86 | <100 |
| A027 278.0-279.5 | 530 | <25 | 44 | 2820 | 390 | <100 |
| A027 279.5-281.0 | 435 | <25 | 46 | 1910 | 375 | <100 |
| *Rep A027 89.0-90.0 | 86 | 100 | 44 | 110 | 74 | <100 |
| *Rep 027 252.7-253.5 | 1070 | 3130 | 220 | 1530 | 540 | <100 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <25 | <100 |
| *Std SU 1A | 1.17% | 9290 | 370 | 230 | 240 | <100 |
| *Std MHO | 5650 | 380 | 215 | 1120 | 98 | <100 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861136

ANALABS

Our reference : BU018280
Your reference : 143650
Project code : Drill Core
Report date : 18/12/00
Report status : Final
Page : 2 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | Cr | Zn | As |
|---|---|---|---|---|---|---|
| A027 281.0-282.5 | 315 | <25 | 46 | 1590 | 245 | <100 |
| A027 282.5-284.0 | 590 | 80 | 46 | 1290 | 375 | <100 |
| A027 284.0-285.8 | 400 | 58 | 36 | 120 | 220 | <100 |
| A027 285.8-287.0 | 270 | 285 | 58 | 240 | 82 | <100 |
| *SS A027 84.0-85.0 | 155 | 145 | 58 | 240 | 68 | <100 |
| *SS 027 252.7-253.5 | 1140 | 3340 | 230 | 1600 | 560 | <100 |
| *Rep 027 284.0-285.8 | 405 | <25 | 36 | 120 | 285 | <100 |
| *Blk BLANK | <25 | 32 | <25 | <100 | <25 | <100 |
| *Std SU_1A | 1.19% | 9530 | 380 | 290 | 205 | <100 |
| *Std BM_44 | 1.27% | 735 | 390 | 1200 | 145 | <100 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861137

ANALABS

Our reference : BU018280
Your reference : **143650**
Project code : Drill Core
Report date : 18/12/00
Report status : Final
Page : 3 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | S | | | | | |
|---|---|---|---|---|---|---|
| A027 56.0-57.0 | <500 | | | | | |
| A027 57.0-58.0 | <500 | | | | | |
| A027 70.0-71.0 | 2.05% | | | | | |
| A027 71.0-72.0 | 1.38% | | | | | |
| A027 79.0-80.0 | 6300 | | | | | |
| A027 80.0-81.0 | 7700 | | | | | |
| A027 81.0-82.0 | 1.56% | | | | | |
| A027 82.0-83.0 | 1350 | | | | | |
| A027 83.0-84.0 | 3450 | | | | | |
| A027 84.0-85.0 | 4350 | | | | | |
| A027 85.0-86.0 | 3900 | | | | | |
| A027 86.0-87.0 | 6000 | | | | | |
| A027 87.0-88.0 | 1550 | | | | | |
| A027 88.0-89.0 | 6350 | | | | | |
| A027 89.0-90.0 | 8800 | | | | | |
| A027 90.0-91.0 | 1.23% | | | | | |
| A027 91.0-92.0 | 7000 | | | | | |
| A027 92.0-93.0 | 2800 | | | | | |
| A027 93.0-94.0 | 7550 | | | | | |
| A027 94.0-95.0 | 2100 | | | | | |
| A027 95.0-96.0 | 3700 | | | | | |
| A027 96.0-97.0 | 1850 | | | | | |
| A027 104.0-105.0 | 9800 | | | | | |
| A027 105.0-106.0 | 1.87% | | | | | |
| A027 106.0-107.0 | 1.72% | | | | | |
| A027 107.0-108.0 | 1.14% | | | | | |
| A027 211.0-212.0 | <500 | | | | | |
| A027 212.0-213.4 | 750 | | | | | |
| A027 213.4-214.4 | <500 | | | | | |
| A027 220.0-221.0 | <500 | | | | | |
| A027 221.0-222.0 | 3100 | | | | | |
| A027 222.0-223.0 | <500 | | | | | |
| A027 223.0-224.0 | <500 | | | | | |
| A027 224.0-225.0 | <500 | | | | | |
| A027 252.7-253.5 | 4600 | | | | | |
| A027 258.5-259.5 | 2950 | | | | | |
| A027 261.1-261.4 | 4250 | | | | | |
| A027 263.5-265.0 | 5000 | | | | | |
| A027 265.0-266.5 | 1.51% | | | | | |
| A027 266.5-268.0 | 1.12% | | | | | |
| A027 268.0-269.5 | 9950 | | | | | |
| A027 269.5-271.0 | 8350 | | | | | |
| A027 271.0-272.5 | 1.13% | | | | | |
| A027 278.0-279.5 | <500 | | | | | |
| A027 279.5-281.0 | <500 | | | | | |
| *Rep A027 89.0-90.0 | 8750 | | | | | |
| *Rep 027 252.7-253.5 | 4350 | | | | | |
| *Blk BLANK | <500 | | | | | |
| *Std SU 1A | 6.85% | | | | | |
| *Std MHO | 1.32% | | | | | |
| Method | I105 | | | | | |
| Units | ppm | | | | | |
| Detection Limit | 500 | | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861138

ANALABS

Our reference : BU018280
Your reference : **143650**
Project code : Drill Core
Report date : 18/12/00
Report status : Final
Page : 4 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | S |
|---|---|
| A027 281.0-282.5 | <500 |
| A027 282.5-284.0 | <500 |
| A027 284.0-285.8 | <500 |
| A027 285.8-287.0 | 1750 |
| *SS A027 84.0-85.0 | 4250 |
| *SS 027 252.7-253.5 | 4350 |
| *Rep 027 284.0-285.8 | <500 |
| *Blk BLANK | <500 |
| *Std SU_1A | 7.10% |
| *Std BM_44 | 1.90% |
| Method | I105 |
| Units | ppm |
| Detection Limit | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861139

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018290
Your reference : **128541**
Project code : Tasmania Drill Core
Date received : 19/12/00
Date reported : 09/01/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 6
Number of Samples : 89
First Sample : A028 175.0-176.0
Last Sample : A028 326.3-327.6

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 09/01/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Remarks :

Authorised by .....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861140

ANALABS

Our reference : BU018290
Your reference : 128541
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 1 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | Cr | Zn | As |
|---|---|---|---|---|---|---|
| A028 175.0-176.0 | 60 | 70 | 48 | 120 | 405 | <100 |
| A028 178.0-179.0 | 185 | 560 | 245 | <100 | 240 | 360 |
| A028 179.0-180.0 | 110 | 530 | 130 | 130 | 165 | 130 |
| A028 180.0-181.0 | 80 | 345 | 82 | <100 | 360 | <100 |
| A028 181.0-181.9 | 74 | 695 | 60 | <100 | 425 | <100 |
| A028 181.9-183.5 | 58 | 140 | 62 | 110 | 1450 | <100 |
| A028 185.7-187.0 | 120 | 145 | 175 | <100 | 1730 | 5940 |
| A028 187.0-188.0 | 72 | 30 | 66 | 120 | 895 | 250 |
| A028 195.0-196.3 | 82 | 185 | 54 | 110 | 84 | <100 |
| A028 203.7-205.0 | 56 | 180 | 64 | <100 | 180 | <100 |
| A028 205.0-206.0 | <25 | 70 | 48 | <100 | 440 | <100 |
| A028 206.0-207.0 | 44 | 135 | 44 | <100 | 745 | <100 |
| A028 207.0-208.0 | 48 | 190 | 50 | <100 | 460 | <100 |
| A028 208.0-209.0 | 48 | 60 | 36 | <100 | 385 | <100 |
| A028 209.0-210.0 | 72 | 110 | 44 | <100 | 1380 | <100 |
| A028 210.0-211.0 | 60 | 250 | 46 | <100 | 495 | <100 |
| A028 211.0-212.0 | 110 | 410 | 60 | <100 | 240 | <100 |
| A028 212.0-213.0 | 115 | 240 | 60 | <100 | 210 | <100 |
| A028 213.0-214.5 | 110 | 300 | 92 | <100 | 165 | 100 |
| A028 219.0-220.0 | 135 | 335 | 84 | <100 | 90 | <100 |
| A028 237.0-238.0 | 270 | 130 | 98 | <100 | 1100 | <100 |
| A028 238.0-239.0 | 215 | 310 | 375 | <100 | 330 | 370 |
| A028 239.0-240.0 | 98 | 40 | 88 | <100 | 215 | <100 |
| A028 245.0-246.0 | 140 | 210 | 250 | <100 | 145 | <100 |
| A028 246.0-247.0 | 570 | 125 | 645 | <100 | 160 | 760 |
| A028 250.5-252.0 | 6760 | 94 | 260 | <100 | 165 | <100 |
| A028 252.0-253.0 | 9510 | 115 | 305 | <100 | 185 | <100 |
| A028 253.0-254.0 | 1.57% | 205 | 410 | <100 | 115 | <100 |
| A028 254.0-255.0 | 4630 | 82 | 165 | <100 | 695 | <100 |
| A028 255.0-256.0 | 2.10% | 200 | 875 | <100 | 130 | 6810 |
| A028 256.0-257.0 | 3840 | 58 | 125 | 240 | 170 | <100 |
| A028 257.0-258.0 | 2770 | 36 | 96 | 260 | 170 | <100 |
| A028 258.0-259.0 | 1410 | 190 | 66 | 450 | 140 | <100 |
| A028 259.0-260.0 | 900 | 28 | 56 | 310 | 125 | <100 |
| A028 260.0-261.0 | 570 | 38 | 50 | 390 | 115 | <100 |
| A028 261.0-262.0 | 2370 | 38 | 78 | 340 | 135 | 500 |
| A028 262.0-263.0 | 825 | 30 | 44 | 210 | 135 | <100 |
| A028 263.0-264.0 | 475 | 52 | 52 | 250 | 135 | <100 |
| A028 264.0-265.0 | 4890 | 40 | 120 | 570 | 150 | 1430 |
| A028 265.0-266.0 | 6480 | 26 | 140 | 3390 | 155 | <100 |
| A028 266.0-267.0 | 1.01% | 52 | 210 | 3180 | 125 | 190 |
| A028 267.0-268.0 | 5970 | 46 | 150 | 4610 | 240 | <100 |
| A028 268.0-269.0 | 2.90% | 245 | 590 | 870 | 120 | 180 |
| A028 269.0-270.0 | 1.03% | 185 | 225 | 880 | 96 | <100 |
| A028 270.0-271.0 | 3600 | 74 | 90 | 880 | 115 | <100 |
| *Rep 028 254.0-255.0 | 4810 | 84 | 170 | <100 | 715 | <100 |
| *Rep 028 268.0-269.0 | 2.85% | 235 | 575 | 870 | 110 | 220 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <25 | <100 |
| *Std SU 1A | 1.15% | 9040 | 380 | 230 | 230 | <100 |
| *Std MHO | 5610 | 370 | 220 | 1070 | 96 | <100 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861141

ANALABS

Our reference : BU018290
Your reference : **128541**
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 2 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | Cr | Zn | As |
|---|---|---|---|---|---|---|
| A028 271.0-272.0 | 2760 | <25 | 72 | 590 | <25 | <100 |
| A028 272.0-273.0 | 7590 | 46 | 165 | 5710 | 225 | <100 |
| A028 273.0-274.0 | 8360 | 70 | 185 | 5580 | 100 | <100 |
| A028 274.0-275.0 | 1.37% | 205 | 330 | 7610 | 96 | 290 |
| A028 275.0-276.0 | 8810 | 165 | 255 | 5230 | 90 | <100 |
| A028 276.0-277.0 | 6390 | 120 | 185 | 5420 | 80 | 280 |
| A028 277.0-278.0 | 8350 | 210 | 220 | 5950 | 140 | 360 |
| A028 278.0-279.0 | 1.50% | 205 | 315 | 1.04% | 135 | 420 |
| A028 279.0-280.0 | 1.16% | 160 | 255 | 1.60% | 290 | 350 |
| A028 280.0-281.0 | 1.59% | 230 | 320 | 9670 | 190 | 240 |
| A028 281.0-282.5 | 1.61% | 235 | 330 | 9100 | 215 | <100 |
| A028 282.5-283.8 | 2070 | <25 | 62 | 1540 | 230 | <100 |
| A028 283.8-285.0 | 1.35% | 410 | 435 | 1.62% | 405 | 370 |
| A028 285.0-286.0 | 1.44% | 495 | 500 | 6530 | 170 | 1330 |
| A028 286.0-287.0 | 1.17% | 435 | 445 | 6630 | 200 | 850 |
| A028 287.0-288.0 | 1.25% | 375 | 440 | 4960 | 110 | 2630 |
| A028 288.0-289.0 | 1.12% | 435 | 410 | 8040 | 225 | 990 |
| A028 289.0-290.0 | 6840 | 225 | 235 | 3220 | 105 | 690 |
| A028 290.0-291.0 | 6130 | 280 | 245 | 5880 | 160 | <100 |
| A028 291.0-292.0 | 4830 | 205 | 205 | 3920 | 105 | <100 |
| A028 292.0-293.0 | 1.73% | 165 | 350 | 7280 | 140 | 1.67% |
| A028 293.0-294.0 | 1.55% | 54 | 215 | 3580 | 88 | 1.76% |
| A028 294.0-295.0 | 9830 | 145 | 210 | 4100 | 100 | 8140 |
| A028 295.0-296.0 | 1.46% | 245 | 335 | 3700 | 70 | 1.02% |
| A028 296.0-297.0 | 2500 | 84 | 130 | 2220 | 52 | 740 |
| A028 297.0-298.0 | 1.45% | 230 | 400 | 3180 | 84 | 8480 |
| A028 298.0-299.0 | 7080 | 100 | 205 | 6780 | 240 | 2670 |
| A028 299.0-300.0 | 7380 | 80 | 210 | 5100 | 135 | 2200 |
| A028 300.0-301.0 | 5800 | 88 | 190 | 870 | 100 | 410 |
| A028 301.0-302.0 | 1260 | <25 | 66 | 990 | 42 | 120 |
| A028 302.0-304.0 | 4930 | 46 | 190 | 1490 | 78 | 690 |
| A028 304.0-306.0 | 9890 | 74 | 250 | 1420 | 28 | 3020 |
| A028 306.0-308.0 | 6930 | <25 | 160 | 2190 | 125 | 2480 |
| A028 308.0-310.0 | 4800 | <25 | 130 | 2110 | 100 | 1150 |
| A028 310.0-312.0 | 4300 | <25 | 125 | 2930 | 135 | 2210 |
| A028 312.0-314.0 | 2110 | <25 | 82 | 2140 | 78 | 710 |
| A028 314.0-316.0 | 3170 | <25 | 105 | 1870 | 74 | 1370 |
| A028 316.0-318.0 | 4120 | <25 | 135 | 3130 | 125 | 270 |
| A028 318.0-320.0 | 7440 | <25 | 185 | 2750 | 120 | <100 |
| A028 320.0-321.8 | 1.01% | 28 | 235 | 2250 | 170 | <100 |
| A028 321.8-323.5 | 2.25% | 82 | 440 | 930 | 42 | <100 |
| A028 323.5-324.8 | 1.39% | 60 | 335 | 480 | 34 | <100 |
| A028 324.8-326.3 | 5610 | 115 | 150 | 960 | 105 | 720 |
| A028 326.3-327.6 | 2160 | 46 | 82 | 550 | 105 | 160 |
| *SS 028 203.7-205.0 | 405 | 165 | 70 | 1060 | 110 | <100 |
| *Rep 028 290.0-291.0 | 5870 | 270 | 230 | 5390 | 200 | <100 |
| *Rep 028 321.8-323.5 | 2.30% | 115 | 455 | 1000 | 62 | <100 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <25 | <100 |
| *Std SU_1A | 1.19% | 9360 | 395 | 250 | 160 | <100 |
| *Std BM_44 | 1.27% | 695 | 395 | 1540 | 44 | <100 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861142

ANALABS

Our reference : BU018290
Your reference : 128541
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 3 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | Cr | Zn | As |
|---|---|---|---|---|---|---|
| *SS 028 260.0-261.0 | 625 | 54 | 54 | 400 | 58 | <100 |
| *SS 028 286.0-287.0 | 1.16% | 470 | 450 | 6550 | 230 | 860 |
| *SS 028 320.0-321.8 | 1.06% | 60 | 245 | 2110 | 155 | <100 |
| *Rep 028 286.0-287.0 | 1.29% | 505 | 495 | 6700 | 220 | 1030 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <25 | <100 |
| *Std SU 1A | 1.18% | 9170 | 385 | 250 | 175 | <100 |
| *Std MHO | 5630 | 385 | 220 | 1110 | 64 | <100 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861143

ANALABS

Our reference : BU018290
Your reference : **128541**
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 4 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | S | | | | | |
|---|---|---|---|---|---|---|
| A028 175.0-176.0 | <500 | | | | | |
| A028 178.0-179.0 | 5400 | | | | | |
| A028 179.0-180.0 | 8700 | | | | | |
| A028 180.0-181.0 | 1.36% | | | | | |
| A028 181.0-181.9 | 1.46% | | | | | |
| A028 181.9-183.5 | 7050 | | | | | |
| A028 185.7-187.0 | 4800 | | | | | |
| A028 187.0-188.0 | 750 | | | | | |
| A028 195.0-196.3 | 9950 | | | | | |
| A028 203.7-205.0 | 9350 | | | | | |
| A028 205.0-206.0 | 2150 | | | | | |
| A028 206.0-207.0 | 5350 | | | | | |
| A028 207.0-208.0 | 8150 | | | | | |
| A028 208.0-209.0 | 1800 | | | | | |
| A028 209.0-210.0 | 9400 | | | | | |
| A028 210.0-211.0 | 5600 | | | | | |
| A028 211.0-212.0 | 1.67% | | | | | |
| A028 212.0-213.0 | 1.72% | | | | | |
| A028 213.0-214.5 | 1.98% | | | | | |
| A028 219.0-220.0 | 2.10% | | | | | |
| A028 237.0-238.0 | 5050 | | | | | |
| A028 238.0-239.0 | 8600 | | | | | |
| A028 239.0-240.0 | 2800 | | | | | |
| A028 245.0-246.0 | 1.41% | | | | | |
| A028 246.0-247.0 | 5350 | | | | | |
| A028 250.5-252.0 | 1.43% | | | | | |
| A028 252.0-253.0 | 2.05% | | | | | |
| A028 253.0-254.0 | 3.35% | | | | | |
| A028 254.0-255.0 | 1.22% | | | | | |
| A028 255.0-256.0 | 3.50% | | | | | |
| A028 256.0-257.0 | 1.17% | | | | | |
| A028 257.0-258.0 | 5000 | | | | | |
| A028 258.0-259.0 | 7700 | | | | | |
| A028 259.0-260.0 | 3350 | | | | | |
| A028 260.0-261.0 | 6600 | | | | | |
| A028 261.0-262.0 | 7750 | | | | | |
| A028 262.0-263.0 | 5800 | | | | | |
| A028 263.0-264.0 | 2350 | | | | | |
| A028 264.0-265.0 | 5700 | | | | | |
| A028 265.0-266.0 | 1.44% | | | | | |
| A028 266.0-267.0 | 1.84% | | | | | |
| A028 267.0-268.0 | 1.13% | | | | | |
| A028 268.0-269.0 | 5.20% | | | | | |
| A028 269.0-270.0 | 2.50% | | | | | |
| A028 270.0-271.0 | 1.05% | | | | | |
| *Rep 028 254.0-255.0 | 1.32% | | | | | |
| *Rep 028 268.0-269.0 | 5.25% | | | | | |
| *Blk BLANK | <500 | | | | | |
| *Std SU 1A | 6.60% | | | | | |
| *Std MHO | 1.37% | | | | | |
| Method | I105 | | | | | |
| Units | ppm | | | | | |
| Detection Limit | 500 | | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861144

ANALABS

Our reference : BU018290
Your reference : **128541**
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 5 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | S | | | | | |
|---|---|---|---|---|---|---|
| A028 271.0-272.0 | 7900 | | | | | |
| A028 272.0-273.0 | 1.58% | | | | | |
| A028 273.0-274.0 | 1.56% | | | | | |
| A028 274.0-275.0 | 2.60% | | | | | |
| A028 275.0-276.0 | 1.79% | | | | | |
| A028 276.0-277.0 | 1.50% | | | | | |
| A028 277.0-278.0 | 2.25% | | | | | |
| A028 278.0-279.0 | 2.75% | | | | | |
| A028 279.0-280.0 | 2.25% | | | | | |
| A028 280.0-281.0 | 3.50% | | | | | |
| A028 281.0-282.5 | 3.50% | | | | | |
| A028 282.5-283.8 | 2050 | | | | | |
| A028 283.8-285.0 | 4.15% | | | | | |
| A028 285.0-286.0 | 4.45% | | | | | |
| A028 286.0-287.0 | 3.70% | | | | | |
| A028 287.0-288.0 | 3.80% | | | | | |
| A028 288.0-289.0 | 3.75% | | | | | |
| A028 289.0-290.0 | 2.20% | | | | | |
| A028 290.0-291.0 | 2.35% | | | | | |
| A028 291.0-292.0 | 2.00% | | | | | |
| A028 292.0-293.0 | 1.70% | | | | | |
| A028 293.0-294.0 | 7450 | | | | | |
| A028 294.0-295.0 | 1.30% | | | | | |
| A028 295.0-296.0 | 2.35% | | | | | |
| A028 296.0-297.0 | 8400 | | | | | |
| A028 297.0-298.0 | 2.25% | | | | | |
| A028 298.0-299.0 | 1.49% | | | | | |
| A028 299.0-300.0 | 1.34% | | | | | |
| A028 300.0-301.0 | 1.32% | | | | | |
| A028 301.0-302.0 | 3100 | | | | | |
| A028 302.0-304.0 | 1.14% | | | | | |
| A028 304.0-306.0 | 1.70% | | | | | |
| A028 306.0-308.0 | 8100 | | | | | |
| A028 308.0-310.0 | 4800 | | | | | |
| A028 310.0-312.0 | 4250 | | | | | |
| A028 312.0-314.0 | 2850 | | | | | |
| A028 314.0-316.0 | 3600 | | | | | |
| A028 316.0-318.0 | 5600 | | | | | |
| A028 318.0-320.0 | 8850 | | | | | |
| A028 320.0-321.8 | 1.14% | | | | | |
| A028 321.8-323.5 | 2.25% | | | | | |
| A028 323.5-324.8 | 1.89% | | | | | |
| A028 324.8-326.3 | 1.52% | | | | | |
| A028 326.3-327.6 | 6750 | | | | | |
| *SS 028 203.7-205.0 | 9150 | | | | | |
| *Rep 028 290.0-291.0 | 2.30% | | | | | |
| *Rep 028 321.8-323.5 | 2.45% | | | | | |
| *Blk BLANK | <500 | | | | | |
| *Std SU_1A | 6.60% | | | | | |
| *Std BM_44 | 1.97% | | | | | |
| Method | I105 | | | | | |
| Units | ppm | | | | | |
| Detection Limit | 500 | | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861145

ANALABS

Our reference : BU018290
Your reference : **128541**
Project code : Tasmania Drill Core
Report date : 09/01/01
Report status : Final
Page : 6 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | S |
|---|---|
| *SS 028 260.0-261.0 | 6550 |
| *SS 028 286.0-287.0 | 3.80% |
| *SS 028 320.0-321.8 | 1.19% |
| *Rep 028 286.0-287.0 | 4.05% |
| *Blk BLANK | <500 |
| *Std SU 1A | 7.10% |
| *Std MHO | 1.28% |
| Method | I105 |
| Units | ppm |
| Detection Limit | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861146

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018351
Your reference : **128546**
Project code : Drop off 1/2/2001
Date received : 01/02/01
Date reported : 16/02/01

Lindsay Newnham

Newnham Exploration & Mining Services
PO Box 183
EXETER

TAS 7275

Number of pages of results : 6
Number of Samples : 70
First Sample : A030 75.05-76.05
Last Sample : A030 300.0-301.0

Invoice to:

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 16/02/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Preliminary Reports :

| | |
|---|---|
| 07/02/01 | Report |
| 13/02/01 | Report |
| 13/02/01 | Report |

Results to:

Results to:

Remarks :

Authorised by .....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861147

ANALABS

Our reference : BU018351
Your reference : **128546**
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 1 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ag | As | Bi | Cr | Cu | Co |
|---|---|---|---|---|---|---|
| A030 75.05-76.05 | <2 | <50 | <50 | 70 | 84 | 42 |
| A030 76.05-77.30 | <2 | <50 | <50 | 130 | <25 | 50 |
| A030 77.30-78.30 | 3 | <50 | <50 | 175 | 280 | 66 |
| A030 78.30-79.03 | <2 | <50 | <50 | 160 | 68 | 60 |
| A030 79.03-80.03 | 4 | <50 | <50 | 150 | <25 | 46 |
| A030 80.03-81.45 | 2 | <50 | <50 | 95 | 36 | 48 |
| A030 81.45-82.45 | 9 | <50 | 55 | <50 | 420 | 38 |
| A030 82.45-83.45 | 4 | <50 | <50 | 55 | 165 | 52 |
| A030 83.45-84.45 | 2 | <50 | <50 | <50 | 40 | 34 |
| A030 84.45-85.45 | 3 | <50 | <50 | <50 | 170 | 30 |
| A030 85.45-86.45 | <2 | <50 | <50 | 55 | <25 | 40 |
| A030 86.45-87.45 | 3 | <50 | <50 | <50 | 200 | 30 |
| A030 87.45-88.45 | 5 | <50 | <50 | <50 | 26 | 36 |
| A030 88.45-89.17 | 12 | <50 | <50 | <50 | <25 | 46 |
| A030 89.17-90.17 | 3 | <50 | <50 | <50 | <25 | 46 |
| A030 90.17-91.17 | <2 | <50 | <50 | 115 | <25 | 54 |
| A030 91.17-91.97 | 13 | <50 | <50 | 70 | 130 | 84 |
| A030 91.97-93.32 | 3 | <50 | <50 | <50 | 56 | 36 |
| A030 93.32-94.32 | 3 | <50 | <50 | 85 | 50 | 50 |
| A030 94.32-95.39 | <2 | <50 | <50 | 130 | <25 | 44 |
| A030 95.39-95.66 | 3 | <50 | <50 | 135 | 205 | 110 |
| A030 95.66-96.03 | <2 | <50 | <50 | 85 | 86 | 38 |
| A030 96.03-96.64 | 2 | <50 | <50 | <50 | 405 | 72 |
| A030 96.64-97.64 | <2 | <50 | <50 | 130 | 28 | 66 |
| A030 97.64-98.77 | <2 | <50 | <50 | 95 | <25 | 40 |
| A030 98.77-99.83 | 4 | <50 | <50 | 95 | 540 | 86 |
| A030 99.83-100.55 | 4 | <50 | <50 | 185 | <25 | 74 |
| A030 100.55-101.55 | 5 | <50 | <50 | 240 | 155 | 62 |
| A030 101.55-102.55 | <2 | <50 | <50 | 250 | 300 | 72 |
| A030 102.55-103.55 | <2 | <50 | <50 | 145 | 120 | 70 |
| A030 103.55-104.55 | <2 | <50 | <50 | 140 | 40 | 52 |
| A030 104.55-105.55 | <2 | <50 | <50 | 150 | 145 | 68 |
| A030 105.55-106.96 | <2 | <50 | <50 | 160 | 98 | 60 |
| A030 106.96-107.96 | <2 | <50 | <50 | 135 | 145 | 60 |
| A030 107.96-108.96 | <2 | <50 | <50 | 110 | 98 | 54 |
| A030 108.96-109.50 | <2 | <50 | <50 | 110 | 3420 | 52 |
| A030 109.50-110.50 | <2 | <50 | <50 | 105 | <25 | 50 |
| A030 110.50-111.50 | <2 | <50 | <50 | 90 | <25 | 46 |
| A030 111.50-112.50 | <2 | <50 | <50 | 150 | <25 | 56 |
| A030 112.50-113.50 | <2 | <50 | <50 | 145 | <25 | 36 |
| A030 113.50-114.50 | <2 | <50 | <50 | 95 | <25 | 28 |
| A030 114.50-115.50 | <2 | <50 | <50 | 100 | <25 | 34 |
| A030 115.50-116.03 | <2 | <50 | <50 | 200 | <25 | 38 |
| A030 116.03-117.00 | <2 | <50 | <50 | 250 | <25 | 46 |
| A030 117.00-118.00 | <2 | <50 | <50 | 170 | <25 | 44 |
| A030 118.00-118.64 | <2 | <50 | <50 | 155 | <25 | 40 |
| A030 118.64-119.64 | 7 | <50 | <50 | 125 | <25 | 70 |
| A030 119.64-120.64 | 5 | <50 | <50 | 135 | <25 | 70 |
| A030 120.64-121.72 | <2 | <50 | <50 | 125 | <25 | 70 |
| A030 121.72-122.72 | 4 | <50 | <50 | 180 | <25 | 46 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 2 | 50 | 50 | 50 | 25 | 25 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861148

ANALABS

Our reference : BU018351
Your reference : **128546**
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 2 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ag | As | Bi | Cr | Cu | Co |
|---|---|---|---|---|---|---|
| A030 122.72-123.72 | 6 | <50 | <50 | 145 | <25 | 54 |
| A030 123.72-124.87 | 3 | <50 | <50 | 185 | <25 | 50 |
| A030 124.87-125.87 | <2 | <50 | <50 | 235 | <25 | 58 |
| A030 284.0-285.0 | N.A. | <50 | N.A. | 1560 | <25 | 78 |
| A030 285.0-286.0 | N.A. | <50 | N.A. | 1530 | <25 | 82 |
| A030 286.0-287.0 | N.A. | <50 | N.A. | 1300 | 165 | 84 |
| A030 287.0-288.0 | N.A. | <50 | N.A. | 1540 | 130 | 88 |
| A030 288.0-289.0 | N.A. | <50 | N.A. | 1880 | <25 | 96 |
| A030 289.0-290.0 | N.A. | <50 | N.A. | 1490 | <25 | 82 |
| A030 290.0-291.0 | N.A. | <50 | N.A. | 2010 | <25 | 90 |
| A030 291.00-292.04 | N.A. | <50 | N.A. | 1940 | <25 | 96 |
| A030 292.04-293.00 | N.A. | 295 | N.A. | 4520 | 60 | 70 |
| A030 293.0-294.0 | N.A. | <50 | N.A. | 3300 | <25 | 66 |
| A030 294.0-295.0 | N.A. | <50 | N.A. | 2050 | <25 | 84 |
| A030 295.0-296.0 | N.A. | <50 | N.A. | 1590 | <25 | 86 |
| A030 296.0-297.0 | N.A. | <50 | N.A. | 1770 | <25 | 80 |
| A030 297.0-298.0 | N.A. | <50 | N.A. | 2230 | <25 | 145 |
| A030 298.0-299.0 | N.A. | <50 | N.A. | 2070 | <25 | 165 |
| A030 299.0-300.0 | N.A. | <50 | N.A. | 1360 | <25 | 84 |
| A030 300.0-301.0 | N.A. | <50 | N.A. | 1260 | <25 | 82 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 2 | 50 | 50 | 50 | 25 | 25 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861149

ANALABS

Our reference : BU018351
Your reference : 128546
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 3 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Au | Au(R) | Ni | Zn | Pb | S |
|---|---|---|---|---|---|---|
| A030 75.05-76.05 | <1 | -- | 78 | 145 | <50 | 1250 |
| A030 76.05-77.30 | 3 | -- | 92 | 650 | 95 | <500 |
| A030 77.30-78.30 | 2 | -- | 100 | 430 | 75 | 950 |
| A030 78.30-79.03 | 1 | -- | 100 | 280 | <50 | <500 |
| A030 79.03-80.03 | 1 | <1 | 96 | 275 | <50 | <500 |
| A030 80.03-81.45 | 3 | -- | 68 | 660 | 205 | 1450 |
| A030 81.45-82.45 | 7 | -- | 46 | 1.00% | 3180 | 8150 |
| A030 82.45-83.45 | 2 | -- | 46 | 1.07% | 5360 | 7700 |
| A030 83.45-84.45 | 1 | -- | 46 | 1050 | 320 | 1100 |
| A030 84.45-85.45 | <1 | -- | 34 | 2080 | 865 | 1850 |
| A030 85.45-86.45 | 2 | -- | 46 | 3060 | 2190 | 2450 |
| A030 86.45-87.45 | <1 | -- | 32 | 6830 | 3790 | 5200 |
| A030 87.45-88.45 | 1 | -- | 36 | 2600 | 1260 | 2800 |
| A030 88.45-89.17 | 4 | 6 | 42 | 3700 | 2440 | 3250 |
| A030 89.17-90.17 | <1 | -- | 48 | 220 | <50 | <500 |
| A030 90.17-91.17 | <1 | -- | 48 | 330 | <50 | <500 |
| A030 91.17-91.97 | 11 | -- | 48 | 1.28% | 5220 | 8200 |
| A030 91.97-93.32 | <1 | -- | 38 | 410 | 130 | 600 |
| A030 93.32-94.32 | <1 | -- | 62 | 340 | 115 | 1100 |
| A030 94.32-95.39 | <1 | -- | 68 | 230 | <50 | <500 |
| A030 95.39-95.66 | <1 | -- | 135 | 570 | 110 | 550 |
| A030 95.66-96.03 | <1 | -- | 26 | 1280 | <50 | 1350 |
| A030 96.03-96.64 | 2 | -- | 105 | 2650 | 125 | 8550 |
| A030 96.64-97.64 | <1 | -- | 92 | 285 | 80 | <500 |
| A030 97.64-98.77 | <1 | -- | 54 | 540 | 60 | <500 |
| A030 98.77-99.83 | <1 | -- | 86 | 965 | 145 | 1600 |
| A030 99.83-100.55 | <1 | <1 | 120 | 345 | <50 | <500 |
| A030 100.55-101.55 | <1 | -- | 165 | 375 | 75 | <500 |
| A030 101.55-102.55 | <1 | -- | 175 | 890 | 155 | 5400 |
| A030 102.55-103.55 | 11 | -- | 98 | 1080 | 155 | 700 |
| A030 103.55-104.55 | <1 | -- | 80 | 205 | <50 | <500 |
| A030 104.55-105.55 | <1 | -- | 80 | 180 | <50 | 1.00% |
| A030 105.55-106.96 | <1 | -- | 88 | 145 | <50 | 7000 |
| A030 106.96-107.96 | <1 | -- | 84 | 215 | 60 | 650 |
| A030 107.96-108.96 | <1 | <1 | 76 | 175 | <50 | 900 |
| A030 108.96-109.50 | 1 | -- | 70 | 2460 | 270 | 1400 |
| A030 109.50-110.50 | <1 | -- | 82 | 320 | <50 | <500 |
| A030 110.50-111.50 | <1 | -- | 86 | 300 | <50 | <500 |
| A030 111.50-112.50 | <1 | -- | 74 | 205 | <50 | 800 |
| A030 112.50-113.50 | <1 | -- | 58 | 145 | <50 | <500 |
| A030 113.50-114.50 | <1 | -- | 26 | 76 | <50 | <500 |
| A030 114.50-115.50 | <1 | <1 | 58 | 155 | <50 | <500 |
| A030 115.50-116.03 | <1 | -- | 74 | 155 | <50 | <500 |
| A030 116.03-117.00 | <1 | -- | 175 | 155 | <50 | <500 |
| A030 117.00-118.00 | <1 | -- | 94 | 150 | <50 | 1.24% |
| A030 118.00-118.64 | <1 | -- | 70 | 175 | <50 | 950 |
| A030 118.64-119.64 | <1 | -- | 120 | 285 | <50 | <500 |
| A030 119.64-120.64 | <1 | -- | 90 | 305 | <50 | <500 |
| A030 120.64-121.72 | 2 | -- | 86 | 300 | <50 | <500 |
| A030 121.72-122.72 | <1 | -- | 68 | 160 | <50 | <500 |
| Method | F614 | F614 | I105 | I105 | I105 | I105 |
| Units | ppb | ppb | ppm | ppm | ppm | ppm |
| Detection Limit | 1 | 1 | 25 | 25 | 50 | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861150

ANALABS

Our reference : BU018351
Your reference : **128546**
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 4 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Au | Au(R) | Ni | Zn | Pb | S |
|---|---|---|---|---|---|---|
| A030 122.72-123.72 | <1 | <1 | 82 | 155 | <50 | <500 |
| A030 123.72-124.87 | <1 | <1 | 94 | 180 | <50 | <500 |
| A030 124.87-125.87 | <1 | -- | 145 | 210 | <50 | <500 |
| A030 284.0-285.0 | N.A. | N.A. | 800 | 170 | N.A. | <500 |
| A030 285.0-286.0 | N.A. | N.A. | 810 | 180 | N.A. | <500 |
| A030 286.0-287.0 | N.A. | N.A. | 775 | 265 | N.A. | <500 |
| A030 287.0-288.0 | N.A. | N.A. | 815 | 280 | N.A. | <500 |
| A030 288.0-289.0 | N.A. | N.A. | 1020 | 270 | N.A. | <500 |
| A030 289.0-290.0 | N.A. | N.A. | 930 | 210 | N.A. | <500 |
| A030 290.0-291.0 | N.A. | N.A. | 1110 | 270 | N.A. | <500 |
| A030 291.00-292.04 | N.A. | N.A. | 1100 | 305 | N.A. | <500 |
| A030 292.04-293.00 | N.A. | N.A. | 2280 | 345 | N.A. | 1400 |
| A030 293.0-294.0 | N.A. | N.A. | 1440 | 255 | N.A. | 550 |
| A030 294.0-295.0 | N.A. | N.A. | 1870 | 225 | N.A. | 800 |
| A030 295.0-296.0 | N.A. | N.A. | 2230 | 170 | N.A. | 800 |
| A030 296.0-297.0 | N.A. | N.A. | 2100 | 160 | N.A. | <500 |
| A030 297.0-298.0 | N.A. | N.A. | 3900 | 230 | N.A. | 1850 |
| A030 298.0-299.0 | N.A. | N.A. | 4350 | 265 | N.A. | 2250 |
| A030 299.0-300.0 | N.A. | N.A. | 1810 | 155 | N.A. | 900 |
| A030 300.0-301.0 | N.A. | N.A. | 1850 | 155 | N.A. | 1000 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | F614 | F614 | I105 | I105 | I105 | I105 |
| Units | ppb | ppb | ppm | ppm | ppm | ppm |
| Detection Limit | 1 | 1 | 25 | 25 | 50 | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861151

ANALABS

Our reference : BU018351
Your reference : 128546
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 5 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Sn | | | | | |
|---|---|---|---|---|---|---|
| A030 75.05-76.05 | 6 | | | | | |
| A030 76.05-77.30 | 3 | | | | | |
| A030 77.30-78.30 | 6 | | | | | |
| A030 78.30-79.03 | <3 | | | | | |
| A030 79.03-80.03 | 5 | | | | | |
| A030 80.03-81.45 | <3 | | | | | |
| A030 81.45-82.45 | <3 | | | | | |
| A030 82.45-83.45 | <3 | | | | | |
| A030 83.45-84.45 | <3 | | | | | |
| A030 84.45-85.45 | 5 | | | | | |
| A030 85.45-86.45 | <3 | | | | | |
| A030 86.45-87.45 | <3 | | | | | |
| A030 87.45-88.45 | <3 | | | | | |
| A030 88.45-89.17 | 5 | | | | | |
| A030 89.17-90.17 | 5 | | | | | |
| A030 90.17-91.17 | 3 | | | | | |
| A030 91.17-91.97 | 3 | | | | | |
| A030 91.97-93.32 | <3 | | | | | |
| A030 93.32-94.32 | <3 | | | | | |
| A030 94.32-95.39 | 5 | | | | | |
| A030 95.39-95.66 | 4 | | | | | |
| A030 95.66-96.03 | <3 | | | | | |
| A030 96.03-96.64 | 5 | | | | | |
| A030 96.64-97.64 | <3 | | | | | |
| A030 97.64-98.77 | 5 | | | | | |
| A030 98.77-99.83 | 3 | | | | | |
| A030 99.83-100.55 | 4 | | | | | |
| A030 100.55-101.55 | 3 | | | | | |
| A030 101.55-102.55 | 3 | | | | | |
| A030 102.55-103.55 | 4 | | | | | |
| A030 103.55-104.55 | 7 | | | | | |
| A030 104.55-105.55 | 4 | | | | | |
| A030 105.55-106.96 | <3 | | | | | |
| A030 106.96-107.96 | 3 | | | | | |
| A030 107.96-108.96 | 5 | | | | | |
| A030 108.96-109.50 | 5 | | | | | |
| A030 109.50-110.50 | 6 | | | | | |
| A030 110.50-111.50 | <3 | | | | | |
| A030 111.50-112.50 | <3 | | | | | |
| A030 112.50-113.50 | 7 | | | | | |
| A030 113.50-114.50 | 4 | | | | | |
| A030 114.50-115.50 | 4 | | | | | |
| A030 115.50-116.03 | 8 | | | | | |
| A030 116.03-117.00 | 7 | | | | | |
| A030 117.00-118.00 | 9 | | | | | |
| A030 118.00-118.64 | 8 | | | | | |
| A030 118.64-119.64 | <3 | | | | | |
| A030 119.64-120.64 | 5 | | | | | |
| A030 120.64-121.72 | 9 | | | | | |
| A030 121.72-122.72 | 5 | | | | | |
| Method | X401 | | | | | |
| Units | ppm | | | | | |
| Detection Limit | 3 | | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861152

ANALABS

Our reference : BU018351
Your reference : **128546**
Project code : Drop off 1/2/2001
Report date : 16/02/01
Report status : Final
Page : 6 of 6

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Sn | | | | | |
|---|---|---|---|---|---|---|
| A030 122.72-123.72 | 7 | | | | | |
| A030 123.72-124.87 | 6 | | | | | |
| A030 124.87-125.87 | <3 | | | | | |
| A030 284.0-285.0 | -- | | | | | |
| A030 285.0-286.0 | -- | | | | | |
| A030 286.0-287.0 | -- | | | | | |
| A030 287.0-288.0 | -- | | | | | |
| A030 288.0-289.0 | -- | | | | | |
| A030 289.0-290.0 | -- | | | | | |
| A030 290.0-291.0 | -- | | | | | |
| A030 291.00-292.04 | -- | | | | | |
| A030 292.04-293.00 | -- | | | | | |
| A030 293.0-294.0 | -- | | | | | |
| A030 294.0-295.0 | -- | | | | | |
| A030 295.0-296.0 | -- | | | | | |
| A030 296.0-297.0 | -- | | | | | |
| A030 297.0-298.0 | -- | | | | | |
| A030 298.0-299.0 | -- | | | | | |
| A030 299.0-300.0 | -- | | | | | |
| A030 300.0-301.0 | -- | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | X401 | | | | | |
| Units | ppm | | | | | |
| Detection Limit | 3 | | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

amdel

861153

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MINERAL CHEMISTRY

Amdel Laboratories Ltd
PO Box 338
Torrensville Plaza SA 5031
ABN 71 009 076 555

Telephone (08) 8416 5300
Facsimile (08) 8234 0321

Mr Lindsay Newnham
Newnham Exploration & Mining Services
PO Box 132
RIVERSIDE TAS 7250

## FINAL ANALYSIS REPORT

| | | | |
|---|---|---|---|
| Your Order No: | A028 | Our Job Number: | 1AD0345 |
| Sample rec'd: | 14/02/01 | Results reported: | 23/02/01 |
| No. of samples: | 45 | | |

Results apply to sample(s) as submitted by the client.

Report comprises a letter and report pages: 1 to 1

Approved Signature:

for
Alan Ciplys
Manager, Geoanalytical, Eastern Australia

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

amdel

861154

Job: 1AD0345
O/N: A028

Final

ANALYTICAL REPORT

| SAMPLE | Ni | Co | Cu | Zn | As | S | Cr |
|---|---|---|---|---|---|---|---|
| A028 252.0-253.0 | 1.07% | 320 | 0.015 | 0.010 | <50 | 2.35 | 140 |
| A028 253.0-254.0 | 1.68% | 440 | 0.025 | 0.010 | <50 | 4.19 | 140 |
| A028 254.0-255.0 | 5100 | 160 | 0.010 | 0.065 | 150 | 1.49 | 100 |
| A028 255.0-256.0 | 2.22% | 900 | 0.020 | 0.010 | 6900 | 3.83 | 130 |
| A028 266.0-267.0 | 1.04% | 210 | 0.005 | 0.010 | 250 | 1.86 | 2450 |
| A028 267.0-268.0 | 6100 | 140 | <0.005 | 0.015 | 100 | 1.12 | 4150 |
| A028 268.0-269.0 | 3.02% | 600 | 0.025 | 0.010 | 300 | 6.09 | 900 |
| A028 269.0-270.0 | 1.08% | 230 | 0.020 | 0.005 | <50 | 2.91 | 1000 |
| A028 270.0-271.0 | 3750 | 90 | 0.005 | 0.005 | <50 | 1.08 | 850 |
| A028 271.0-272.0 | 2900 | 80 | <0.005 | 0.005 | 50 | 0.86 | 750 |
| A028 272.0-273.0 | 7600 | 160 | 0.005 | 0.015 | 100 | 1.79 | 3150 |
| A028 273.0-274.0 | 8500 | 190 | 0.010 | 0.015 | <50 | 1.73 | 4650 |
| A028 274.0-275.0 | 1.39% | 340 | 0.025 | 0.020 | 250 | 2.97 | 6800 |
| A028 275.0-276.0 | 8850 | 270 | 0.020 | 0.015 | <50 | 2.13 | 4200 |
| A028 276.0-277.0 | 6550 | 190 | 0.015 | 0.015 | 300 | 1.62 | 5100 |
| A028 277.0-278.0 | 8400 | 210 | 0.015 | 0.015 | 300 | 2.45 | 4750 |
| A028 278.0-279.0 | 1.47% | 300 | 0.020 | 0.020 | 400 | 3.23 | 8200 |
| A028 279.0-280.0 | 1.16% | 250 | 0.015 | 0.025 | 250 | 2.46 | 9500 |
| A028 280.0-281.0 | 1.52% | 310 | 0.020 | 0.020 | 200 | 3.87 | 6900 |
| A028 281.0-282.5 | 1.58% | 310 | 0.025 | 0.030 | <50 | 3.89 | 8500 |
| A028 282.5-283.8 | 2100 | 50 | <0.005 | 0.015 | 150 | 0.25 | 1450 |
| A028 283.8-285.0 | 1.41% | 450 | 0.045 | 0.045 | 400 | 5.24 | 1.66% |
| A028 285.0-286.0 | 1.52% | 500 | 0.055 | 0.020 | 1400 | 5.61 | 5200 |
| A028 286.0-287.0 | 1.16% | 440 | 0.045 | 0.015 | 750 | 4.41 | 2150 |
| A028 287.0-288.0 | 1.24% | 420 | 0.040 | 0.010 | 2500 | 4.25 | 1150 |
| A028 288.0-289.0 | 1.11% | 380 | 0.045 | 0.015 | 950 | 4.27 | 2700 |
| A028 289.0-290.0 | 6850 | 220 | 0.025 | 0.010 | 700 | 2.53 | 1050 |
| A028 290.0-291.0 | 5950 | 230 | 0.030 | 0.015 | <50 | 2.56 | 1850 |
| A028 291.0-292.0 | 4800 | 190 | 0.020 | 0.010 | <50 | 2.19 | 550 |
| A028 292.0-293.0 | 1.81% | 360 | 0.020 | 0.010 | 1.71% | 1.92 | 900 |
| A028 293.0-294.0 | 1.44% | 190 | 0.005 | 0.005 | 1.59% | 0.72 | 650 |
| A028 294.0-295.0 | 9400 | 200 | 0.015 | 0.010 | 7300 | 1.45 | 550 |
| A028 295.0-296.0 | 1.42% | 330 | 0.025 | 0.010 | 9450 | 2.80 | 800 |
| A028 296.0-297.0 | 2600 | 140 | 0.010 | 0.010 | 800 | 0.93 | 950 |
| A028 297.0-298.0 | 1.48% | 400 | 0.025 | 0.015 | 8450 | 2.60 | 750 |
| A028 318.0-320.0 | 7750 | 180 | <0.005 | 0.015 | 100 | 0.93 | 1900 |
| A028 320.0-321.8 | 1.06% | 240 | <0.005 | 0.015 | 100 | 1.24 | 1500 |
| A028 321.8-323.5 | 2.29% | 420 | 0.010 | <0.005 | 50 | 2.65 | 850 |
| A028 323.5-324.8 | 1.39% | 330 | 0.010 | 0.010 | 50 | 1.95 | 490 |
| A028 324.8-326.3 | 5600 | 150 | 0.015 | 0.010 | 750 | 1.62 | 900 |
| A028 318.0-320.0 (C) | 7550 | 180 | <0.005 | 0.015 | 50 | 0.93 | 2350 |
| A028 320.0-321.8 (C) | 1.03% | 230 | 0.005 | 0.020 | <50 | 1.22 | 1600 |
| A028 321.8-323.5 (C) | 2.10% | 400 | 0.010 | <0.005 | <50 | 2.43 | 900 |
| A028 323.5-324.8 (C) | 1.36% | 330 | 0.010 | 0.010 | 100 | 1.90 | 460 |
| A028 324.8-326.3 (C) | 5550 | 130 | 0.010 | 0.005 | 700 | 1.61 | 800 |
| UNITS | ppm | ppm | % | % | ppm | % | ppm |
| DET.LIM | 50 | 20 | 0.005 | 0.005 | 50 | 0.01 | 20 |
| SCHEME | MET1 | MET1 | MET1 | MET1 | MET1 | MET1 | MET1 |

861155

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018389
Your reference : **128548**
Project code : Drill Core
Date received : 02/03/01
Date reported : 13/03/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 2
Number of Samples : 20
First Sample : A031 14.3-15.3
Last Sample : A031 421.27-422.27

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :
Modem Y 13/03/01
Facsimile / /
Disk Report Y / /

Preliminary Reports :
08/03/01 Report
08/03/01 Report

Results to:

Results to:

Remarks : Results for sample 38067 (Submission 128550) is 1ppb.
No charge for this sample.

Authorised by ..m.a. Good.....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861156

ANALABS

Our reference : BU018389
Your reference : **128548**
Project code : Drill Core
Report date : 13/03/01
Report status : Final
Page : 1 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Au | Au(R) | | | | |
|---|---|---|---|---|---|---|
| *Blk BLANK | <1 | -- | | | | |
| A031 14.3-15.3 | <1 | -- | | | | |
| A031 15.3-16.3 | <1 | <1 | | | | |
| A031 16.3-17.3 | <1 | -- | | | | |
| A031 17.3-18.3 | <1 | -- | | | | |
| A031 18.3-19.3 | <1 | -- | | | | |
| A031 19.3-20.3 | <1 | -- | | | | |
| A031 20.3-21.3 | <1 | -- | | | | |
| A031 21.3-22.3 | <1 | -- | | | | |
| A031 22.3-23.5 | <1 | -- | | | | |
| A031 23.5-24.5 | <1 | -- | | | | |
| *SS A031 23.5-24.5 | <1 | -- | | | | |
| A031 411.45-412.45 | <1 | <1 | | | | |
| A031 412.45-413.94 | <1 | -- | | | | |
| A031 413.94-415 | <1 | -- | | | | |
| A031 415-416 | <1 | -- | | | | |
| A031 416-417 | <1 | -- | | | | |
| *Std ST15 | 31 | -- | | | | |
| A031 417-418 | 17 | -- | | | | |
| A031 418-419.07 | 4 | -- | | | | |
| A031 419.07-420.07 | 3 | -- | | | | |
| *Std ST07 | 199 | -- | | | | |
| A031 420.07-421.27 | 6 | -- | | | | |
| *Rep A031 19.3-20.3 | <1 | -- | | | | |
| *Rep A031 23.5-24.5 | <1 | -- | | | | |
| *Std ST15 | 33 | -- | | | | |
| *Blk BLANK | <1 | -- | | | | |
| *Std ST07 | 207 | -- | | | | |
| A031 421.27-422.27 | 5 | 6 | | | | |
| *Rep 1 421.27-422.27 | 6 | -- | | | | |
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| | | | | | | |
| | | | | | | |
| Method | F614 | F614 | | | | |
| Units | ppb | ppb | | | | |
| Detection Limit | 1 | 1 | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

8·61157

ANALABS

Our reference : BU018389
Your reference : 128548
Project code : Drill Core
Report date : 13/03/01
Report status : Final
Page : 2 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Cu | Pb | Zn | Ag | | |
|---|---|---|---|---|---|---|
| A031 14.3-15.3 | <25 | <25 | 350 | <2 | | |
| A031 15.3-16.3 | <25 | 82 | 430 | <2 | | |
| A031 16.3-17.3 | <25 | 26 | 370 | 2 | | |
| A031 17.3-18.3 | <25 | <25 | 205 | <2 | | |
| A031 18.3-19.3 | <25 | 62 | 365 | <2 | | |
| A031 19.3-20.3 | <25 | <25 | 250 | <2 | | |
| A031 20.3-21.3 | 340 | 64 | 490 | <2 | | |
| A031 21.3-22.3 | 145 | 50 | 250 | <2 | | |
| A031 22.3-23.5 | 275 | 32 | 190 | <2 | | |
| A031 23.5-24.5 | 135 | 44 | 405 | <2 | | |
| A031 411.45-412.45 | <25 | <25 | 140 | <2 | | |
| A031 412.45-413.94 | 100 | 58 | 2890 | <2 | | |
| A031 413.94-415 | 225 | 38 | 2480 | <2 | | |
| A031 415-416 | 30 | <25 | 1010 | <2 | | |
| A031 416-417 | 84 | <25 | 1570 | <2 | | |
| A031 417-418 | 105 | <25 | 2110 | <2 | | |
| A031 418-419.07 | 88 | 30 | 680 | <2 | | |
| A031 419.07-420.07 | 68 | <25 | 365 | <2 | | |
| A031 420.07-421.27 | 42 | 62 | 190 | <2 | | |
| A031 421.27-422.27 | 36 | <25 | 135 | <2 | | |
| *SS A031 23.5-24.5 | 125 | 40 | 400 | <2 | | |
| *Rep A031 413.94-415 | 210 | 28 | 2530 | <2 | | |
| *Blk BLANK | <25 | <25 | <25 | <2 | | |
| *Std OREAS 32 | 2.95% | >2.50% | >2.50% | 566 | | |
| *Std GBM398_1 | 1.52% | >2.50% | 2.20% | 6 | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | I105 | I105 | I105 | I105 | | |
| Units | ppm | ppm | ppm | ppm | | |
| Detection Limit | 25 | 25 | 25 | 2 | | |
| Upper Method | | I105 | I105 | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861158

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018391
Your reference : **128549**
Project code :
Date received : 05/03/01
Date reported : 15/03/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 4
Number of Samples : 67
First Sample : A032 97.29-98.29
Last Sample : A032 348.00-349.02

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 15/03/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Remarks :

Authorised by ..M.A. Good.....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861159

ANALABS

Our reference : BU018391
Your reference : **128549**
Project code :
Report date : 15/03/01
Report status : Final
Page : 1 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Zn | As | S | Co |
|---|---|---|---|---|---|---|
| A032 97.29-98.29 | 1630 | 130 | 135 | <100 | 5950 | 160 |
| A032 98.29-99.29 | 670 | 28 | 78 | <100 | 2350 | 78 |
| A032 99.29-99.74 | 815 | 360 | 230 | <100 | 9850 | 120 |
| A032 99.74-100.74 | 270 | 150 | 290 | <100 | <500 | 68 |
| A032 226.51-227.51 | 235 | <25 | 455 | <100 | <500 | 38 |
| A032 227.51-228.40 | 4960 | 280 | 315 | 100 | 5250 | 215 |
| A032 228.40-228.71 | 2.10% | 115 | 165 | 180 | 2.25% | 720 |
| A032 228.71-229.36 | 2160 | <25 | 890 | 880 | 1450 | 115 |
| A032 229.36-230.84 | 2970 | <25 | 205 | 130 | 2500 | 84 |
| A032 230.84-232.0 | 7960 | <25 | 165 | 350 | 6000 | 215 |
| A032 232.0-233.0 | 4210 | <25 | 140 | <100 | 2950 | 105 |
| A032 233.0-234.0 | 8280 | <25 | 195 | <100 | 6400 | 210 |
| A032 234.0-235.0 | 5660 | <25 | 205 | <100 | 4300 | 135 |
| A032 235.0-236.0 | 3740 | <25 | 355 | 130 | 2550 | 105 |
| A032 236.0-237.0 | 6630 | 205 | 145 | <100 | 5300 | 145 |
| A032 237.0-238.0 | 6830 | <25 | 145 | <100 | 5550 | 180 |
| A032 238.0-239.0 | 3400 | <25 | 325 | <100 | 2450 | 110 |
| A032 239.0-240.0 | 2320 | <25 | 170 | <100 | 1200 | 76 |
| A032 240.0-241.0 | 7690 | <25 | 260 | <100 | 6000 | 235 |
| A032 241.0-242.0 | 3480 | <25 | 135 | <100 | 2350 | 100 |
| A032 242.0-243.0 | 1780 | <25 | 185 | <100 | 950 | 58 |
| A032 243.0-244.0 | 1790 | <25 | 300 | <100 | 900 | 60 |
| A032 244.0-245.0 | 4290 | <25 | 390 | <100 | 3100 | 155 |
| A032 245.0-246.0 | 2330 | <25 | 180 | <100 | 1400 | 98 |
| A032 246.0-247.0 | 1390 | <25 | 110 | <100 | 550 | 52 |
| A032 247.0-248.0 | 1.09% | 38 | 310 | <100 | 8600 | 380 |
| A032 248.0-249.0 | 1930 | <25 | 100 | <100 | 1000 | 76 |
| A032 249.0-250.0 | 1940 | 84 | 325 | <100 | 1100 | 78 |
| A032 250.0-251.0 | 1410 | 66 | 280 | 140 | 700 | 68 |
| A032 251.0-252.0 | 4790 | <25 | 210 | <100 | 3250 | 205 |
| A032 252.0-253.0 | 1990 | <25 | 595 | <100 | 1300 | 105 |
| A032 253.0-254.0 | 1200 | <25 | 305 | <100 | <500 | 92 |
| A032 254.0-255.0 | 1080 | <25 | 320 | <100 | <500 | 84 |
| A032 255.0-256.0 | 1320 | <25 | 380 | <100 | 750 | 86 |
| A032 256.0-257.0 | 1350 | <25 | 200 | <100 | 750 | 96 |
| A032 257.0-258.0 | 1440 | <25 | 160 | <100 | 800 | 86 |
| A032 258.00-258.95 | 1420 | 28 | 175 | <100 | 750 | 86 |
| A032 258.95-261.57 | 1720 | 86 | 535 | <100 | 850 | 50 |
| A032 261.57-263.2 | 1850 | <25 | 410 | 320 | 550 | 52 |
| A032 263.2-264.2 | 1750 | <25 | 735 | 220 | <500 | 78 |
| A032 264.2-265.2 | 875 | 42 | 1360 | <100 | 1150 | <25 |
| A032 265.2-266.2 | 1180 | <25 | 1070 | 420 | <500 | 48 |
| A032 266.2-267.2 | 2270 | 46 | 730 | 1400 | <500 | 56 |
| A032 267.2-268.2 | 7130 | 52 | 1300 | 2470 | 3850 | 110 |
| A032 268.2-269.2 | 515 | <25 | 215 | <100 | <500 | 30 |
| *Rep 2 228.40-228.71 | 2.15% | 115 | 170 | 260 | 2.35% | 730 |
| *Rep 32 230.84-232.0 | 7710 | <25 | 155 | 360 | 5600 | 200 |
| *Blk BLANK | <25 | 30 | <25 | <100 | <500 | <25 |
| *Std SU 1A | 1.19% | 9400 | 225 | <100 | 6.75% | 370 |
| *Std MHO | 5890 | 400 | 86 | <100 | 1.28% | 220 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 500 | 25 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861160

ANALABS

Our reference : BU018391
Your reference : 128549
Project code :
Report date : 15/03/01
Report status : Final
Page : 2 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Zn | As | S | Co |
|---|---|---|---|---|---|---|
| A032 269.2-270.2 | 2450 | <25 | 465 | 530 | 1900 | 64 |
| A032 270.2-271.2 | 1600 | <25 | 250 | 350 | <500 | 40 |
| A032 271.2-272.2 | 1310 | <25 | 1080 | 410 | 650 | 30 |
| A032 272.2-273.2 | 675 | <25 | 1210 | 280 | <500 | 34 |
| A032 273.2-274.2 | 225 | 110 | >2.50% | <100 | 1.83% | 30 |
| A032 274.2-275.2 | 420 | <25 | 1.05% | <100 | 5150 | <25 |
| A032 275.2-276.2 | 230 | <25 | 2590 | <100 | 1200 | <25 |
| A032 276.2-277.18 | 290 | <25 | 460 | <100 | <500 | <25 |
| A032 286.5-287.5 | 205 | <25 | 820 | <100 | <500 | <25 |
| A032 287.5-288.5 | 160 | 40 | 2090 | <100 | 800 | <25 |
| A032 288.5-289.5 | 190 | <25 | 3170 | <100 | 1450 | <25 |
| A032 289.5-290.5 | 185 | <25 | 625 | <100 | <500 | <25 |
| A032 290.5-291.5 | 190 | 68 | 945 | <100 | <500 | <25 |
| A032 291.5-292.5 | 265 | <25 | 1090 | <100 | <500 | <25 |
| A032 292.5-293.5 | 185 | <25 | 595 | <100 | <500 | <25 |
| A032 293.5-294.5 | 260 | 335 | >2.50% | <100 | 1.68% | 28 |
| A032 294.5-295.5 | 195 | 225 | 1760 | <100 | 1000 | <25 |
| A032 342.89-344.45 | 1060 | 110 | 1880 | 210 | 900 | 62 |
| A032 344.45-345.57 | 305 | 28 | 900 | <100 | <500 | 32 |
| A032 345.57-347.06 | 5090 | 72 | 1170 | 4820 | 7450 | 190 |
| A032 347.06-348.00 | 315 | <25 | 430 | <100 | <500 | <25 |
| A032 348.00-349.02 | 5390 | 235 | 2000 | 3500 | 2450 | 125 |
| FELDSPAR A | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| FELDSPAR B | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. |
| *SS 32 230.84-232.0 | 7220 | <25 | 155 | 240 | 5200 | 190 |
| *SS 032 256.0-257.0 | 1200 | <25 | 190 | <100 | 700 | 88 |
| *SS 032 292.5-293.5 | 190 | <25 | 575 | <100 | <500 | <25 |
| *Rep 32 276.2-277.18 | 275 | <25 | 425 | <100 | <500 | <25 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <500 | <25 |
| *Std SU_1A | 1.22% | 9950 | 235 | <100 | 6.80% | 395 |
| *Std BM_44 | 1.25% | 725 | 94 | <100 | 1.84% | 385 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 500 | 25 |
| Upper Method | | | I105 | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861161

ANALABS

Our reference : BU018391
Your reference : **128549**
Project code :
Report date : 15/03/01
Report status : Final
Page : 3 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ag | Cr | | | | |
|---|---|---|---|---|---|---|
| A032 97.29-98.29 | <4 | 1010 | | | | |
| A032 98.29-99.29 | <4 | 2240 | | | | |
| A032 99.29-99.74 | <4 | 1440 | | | | |
| A032 99.74-100.74 | 6 | 180 | | | | |
| A032 226.51-227.51 | 5 | 220 | | | | |
| A032 227.51-228.40 | <4 | 270 | | | | |
| A032 228.40-228.71 | 5 | 360 | | | | |
| A032 228.71-229.36 | <4 | 1870 | | | | |
| A032 229.36-230.84 | 5 | 1520 | | | | |
| A032 230.84-232.0 | 4 | 1620 | | | | |
| A032 232.0-233.0 | 4 | 1300 | | | | |
| A032 233.0-234.0 | <4 | 1610 | | | | |
| A032 234.0-235.0 | <4 | 1830 | | | | |
| A032 235.0-236.0 | <4 | 4570 | | | | |
| A032 236.0-237.0 | <4 | 1890 | | | | |
| A032 237.0-238.0 | <4 | 1340 | | | | |
| A032 238.0-239.0 | 6 | 3020 | | | | |
| A032 239.0-240.0 | <4 | 1850 | | | | |
| A032 240.0-241.0 | <4 | 1630 | | | | |
| A032 241.0-242.0 | <4 | 1590 | | | | |
| A032 242.0-243.0 | <4 | 1210 | | | | |
| A032 243.0-244.0 | 5 | 1730 | | | | |
| A032 244.0-245.0 | 6 | 2210 | | | | |
| A032 245.0-246.0 | <4 | 1760 | | | | |
| A032 246.0-247.0 | <4 | 1240 | | | | |
| A032 247.0-248.0 | 5 | 1410 | | | | |
| A032 248.0-249.0 | <4 | 1500 | | | | |
| A032 249.0-250.0 | 5 | 1720 | | | | |
| A032 250.0-251.0 | 6 | 2100 | | | | |
| A032 251.0-252.0 | <4 | 2290 | | | | |
| A032 252.0-253.0 | <4 | 2180 | | | | |
| A032 253.0-254.0 | <4 | 3610 | | | | |
| A032 254.0-255.0 | <4 | 3370 | | | | |
| A032 255.0-256.0 | <4 | 2520 | | | | |
| A032 256.0-257.0 | <4 | 2200 | | | | |
| A032 257.0-258.0 | <4 | 1970 | | | | |
| A032 258.00-258.95 | <4 | 3210 | | | | |
| A032 258.95-261.57 | <4 | 3180 | | | | |
| A032 261.57-263.2 | <4 | 1930 | | | | |
| A032 263.2-264.2 | <4 | 2680 | | | | |
| A032 264.2-265.2 | <4 | 1760 | | | | |
| A032 265.2-266.2 | <4 | 3810 | | | | |
| A032 266.2-267.2 | <4 | 1260 | | | | |
| A032 267.2-268.2 | <4 | 920 | | | | |
| A032 268.2-269.2 | <4 | 650 | | | | |
| *Rep 2 228.40-228.71 | <4 | 360 | | | | |
| *Rep 32 230.84-232.0 | <4 | 1360 | | | | |
| *Blk BLANK | <4 | <100 | | | | |
| *Std SU 1A | 5 | 250 | | | | |
| *Std MHO | <4 | 1120 | | | | |
| Method | I105 | I105 | | | | |
| Units | ppm | ppm | | | | |
| Detection Limit | 4 | 100 | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861162

ANALABS

Our reference : BU018391
Your reference : 128549
Project code :
Report date : 15/03/01
Report status : Final
Page : 4 of 4

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ag | Cr | | | | |
|---|---|---|---|---|---|---|
| A032 269.2-270.2 | <4 | 770 | | | | |
| A032 270.2-271.2 | 4 | 1230 | | | | |
| A032 271.2-272.2 | <4 | 1020 | | | | |
| A032 272.2-273.2 | <4 | 3490 | | | | |
| A032 273.2-274.2 | <4 | 790 | | | | |
| A032 274.2-275.2 | 4 | 720 | | | | |
| A032 275.2-276.2 | 5 | 700 | | | | |
| A032 276.2-277.18 | <4 | 1130 | | | | |
| A032 286.5-287.5 | <4 | 830 | | | | |
| A032 287.5-288.5 | <4 | 660 | | | | |
| A032 288.5-289.5 | <4 | 670 | | | | |
| A032 289.5-290.5 | <4 | 690 | | | | |
| A032 290.5-291.5 | <4 | 970 | | | | |
| A032 291.5-292.5 | <4 | 980 | | | | |
| A032 292.5-293.5 | <4 | 1090 | | | | |
| A032 293.5-294.5 | <4 | 880 | | | | |
| A032 294.5-295.5 | <4 | 630 | | | | |
| A032 342.89-344.45 | <4 | 1430 | | | | |
| A032 344.45-345.57 | <4 | 4330 | | | | |
| A032 345.57-347.06 | 6 | 2780 | | | | |
| A032 347.06-348.00 | <4 | 930 | | | | |
| A032 348.00-349.02 | 5 | 670 | | | | |
| FELDSPAR A | N.A. | <100 | | | | |
| FELDSPAR B | N.A. | <100 | | | | |
| *SS 32 230.84-232.0 | <4 | 1510 | | | | |
| *SS 032 256.0-257.0 | <4 | 1530 | | | | |
| *SS 032 292.5-293.5 | <4 | 1050 | | | | |
| *Rep 32 276.2-277.18 | <4 | 1010 | | | | |
| *Blk BLANK | <4 | <100 | | | | |
| *Std SU_1A | 9 | 230 | | | | |
| *Std BM_44 | 5 | 1450 | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | I105 | I105 | | | | |
| Units | ppm | ppm | | | | |
| Detection Limit | 4 | 100 | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861163

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018396
Your reference : **132874**
Project code :
Date received : 08/03/01
Date reported : 22/03/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 2
Number of Samples : 39
First Sample : A032 349.02-350.02
Last Sample : A032 388.25-389.25

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 22/03/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Remarks :

Authorised by ...
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861164

ANALABS

Our reference : BU018396
Your reference : 132874
Project code :
Report date : 22/03/01
Report status : Final
Page : 1 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Zn | As | S | Co |
|---|---|---|---|---|---|---|
| A032 349.02-350.02 | 1720 | 130 | 1570 | 1390 | 700 | 72 |
| A032 350.02-351.02 | 555 | 905 | >2.50% | 280 | 1.79% | 42 |
| A032 351.02-352.02 | 905 | <25 | 1010 | 550 | <500 | 42 |
| A032 352.02-353.62 | 1390 | <25 | 1080 | 1100 | <500 | 58 |
| A032 353.62-354.39 | 1550 | <25 | 280 | 780 | 2550 | 58 |
| A032 354.39-355.39 | 2930 | 56 | 380 | <100 | 2200 | 165 |
| A032 355.39-356.39 | 2860 | 350 | 660 | <100 | 3650 | 180 |
| A032 356.39-357.39 | 2610 | 36 | 420 | <100 | 1900 | 140 |
| A032 357.39-358.39 | 2540 | 36 | 185 | <100 | 1700 | 110 |
| A032 358.39-359.39 | 3060 | 30 | 280 | <100 | 2450 | 130 |
| A032 359.39-360.39 | 3300 | <25 | 370 | <100 | 2300 | 165 |
| A032 360.39-361.39 | 1880 | <25 | 210 | <100 | 1250 | 110 |
| A032 361.39-362.15 | 1980 | <25 | 260 | <100 | 1050 | 135 |
| A032 362.15-363.47 | 1450 | <25 | 175 | 230 | 1200 | 52 |
| A032 363.47-364.47 | 600 | <25 | 220 | <100 | <500 | 32 |
| A032 364.47-365.47 | 855 | <25 | 290 | 250 | <500 | 40 |
| A032 365.47-366.41 | 1190 | <25 | 210 | 180 | <500 | 52 |
| A032 366.41-367.41 | 2450 | <25 | 215 | <100 | 1150 | 98 |
| A032 367.41-368.41 | 8580 | <25 | 280 | 110 | 7150 | 230 |
| A032 368.41-369.41 | 1360 | <25 | 155 | <100 | 600 | 68 |
| A032 369.41-370.41 | 1450 | <25 | 115 | <100 | 800 | 64 |
| A032 370.41-371.41 | 3960 | 82 | 295 | <100 | 4200 | 155 |
| A032 371.41-372.41 | 4800 | 325 | 300 | <100 | 4950 | 185 |
| A032 372.41-373.61 | 2970 | 200 | 1100 | <100 | 3650 | 130 |
| A032 373.61-374.61 | 7390 | <25 | 230 | 1280 | 5500 | 220 |
| A032 374.61-375.80 | 3860 | <25 | 245 | 160 | 3350 | 135 |
| A032 375.80-376.80 | 7490 | <25 | 265 | 1290 | 1.10% | 245 |
| A032 376.80-377.64 | 1070 | <25 | 440 | 110 | 2.80% | 44 |
| A032 377.64-378.83 | 1440 | <25 | 255 | 480 | 4850 | 66 |
| A032 378.83-379.83 | 900 | <25 | 245 | <100 | 5550 | 60 |
| A032 379.83-380.83 | 1230 | <25 | 250 | <100 | 2950 | 70 |
| A032 380.83-381.83 | 1010 | <25 | 235 | <100 | 2500 | 70 |
| A032 381.83-382.40 | 1680 | <25 | 500 | 150 | 800 | 98 |
| A032 382.40-383.46 | 880 | <25 | 290 | <100 | <500 | 66 |
| A032 383.46-385.10 | 1190 | <25 | 250 | <100 | 1200 | 56 |
| A032 385.10-386.10 | 6580 | 62 | 275 | 7640 | 600 | 255 |
| A032 386.10-387.10 | 1020 | <25 | 455 | 110 | 3550 | 84 |
| A032 387.10-388.25 | 1110 | <25 | 215 | <100 | 1150 | 66 |
| A032 388.25-389.25 | 275 | <25 | 330 | <100 | <500 | 34 |
| *SS 2 358.39-359.39 | 3090 | 30 | 310 | <100 | 2400 | 135 |
| *SS 2 383.46-385.10 | 1130 | <25 | 270 | <100 | 1050 | 56 |
| *Rep 2 366.41-367.41 | 2270 | <25 | 185 | 130 | 1000 | 88 |
| *Rep 2 371.41-372.41 | 5140 | 335 | 325 | <100 | 5100 | 195 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <500 | <25 |
| *Std SU_1A | 1.26% | 1.01% | 260 | <100 | 7.40% | 400 |
| *Std MHO | 5660 | 385 | 110 | <100 | 1.35% | 215 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 500 | 25 |
| Upper Method | | | I105 | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861165

ANALABS

Our reference : BU018396
Your reference : 132874
Project code :
Report date : 22/03/01
Report status : Final
Page : 2 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ag | Cr | | | | |
|---|---|---|---|---|---|---|
| A032 349.02-350.02 | <4 | 850 | | | | |
| A032 350.02-351.02 | <4 | 360 | | | | |
| A032 351.02-352.02 | <4 | 770 | | | | |
| A032 352.02-353.62 | <4 | 6040 | | | | |
| A032 353.62-354.39 | <4 | 1620 | | | | |
| A032 354.39-355.39 | <4 | 1410 | | | | |
| A032 355.39-356.39 | 6 | 1870 | | | | |
| A032 356.39-357.39 | 6 | 1950 | | | | |
| A032 357.39-358.39 | <4 | 1360 | | | | |
| A032 358.39-359.39 | <4 | 1920 | | | | |
| A032 359.39-360.39 | <4 | 2130 | | | | |
| A032 360.39-361.39 | <4 | 1730 | | | | |
| A032 361.39-362.15 | 5 | 2360 | | | | |
| A032 362.15-363.47 | <4 | 800 | | | | |
| A032 363.47-364.47 | <4 | 500 | | | | |
| A032 364.47-365.47 | <4 | 720 | | | | |
| A032 365.47-366.41 | <4 | 700 | | | | |
| A032 366.41-367.41 | <4 | 2010 | | | | |
| A032 367.41-368.41 | <4 | 1840 | | | | |
| A032 368.41-369.41 | <4 | 1800 | | | | |
| A032 369.41-370.41 | <4 | 1150 | | | | |
| A032 370.41-371.41 | <4 | 3550 | | | | |
| A032 371.41-372.41 | <4 | 2670 | | | | |
| A032 372.41-373.61 | 4 | 2070 | | | | |
| A032 373.61-374.61 | <4 | 2480 | | | | |
| A032 374.61-375.80 | <4 | 3400 | | | | |
| A032 375.80-376.80 | <4 | 1550 | | | | |
| A032 376.80-377.64 | <4 | 3240 | | | | |
| A032 377.64-378.83 | <4 | 1520 | | | | |
| A032 378.83-379.83 | <4 | 1650 | | | | |
| A032 379.83-380.83 | <4 | 940 | | | | |
| A032 380.83-381.83 | <4 | 1070 | | | | |
| A032 381.83-382.40 | <4 | 2260 | | | | |
| A032 382.40-383.46 | <4 | 1320 | | | | |
| A032 383.46-385.10 | <4 | 880 | | | | |
| A032 385.10-386.10 | <4 | 1300 | | | | |
| A032 386.10-387.10 | <4 | 1630 | | | | |
| A032 387.10-388.25 | <4 | 1100 | | | | |
| A032 388.25-389.25 | <4 | 850 | | | | |
| *SS 2 358.39-359.39 | <4 | 2260 | | | | |
| *SS 2 383.46-385.10 | <4 | 1040 | | | | |
| *Rep 2 366.41-367.41 | <4 | 1850 | | | | |
| *Rep 2 371.41-372.41 | 6 | 2910 | | | | |
| *Blk BLANK | <4 | <100 | | | | |
| *Std SU_1A | 4 | 240 | | | | |
| *Std MHO | 6 | 1150 | | | | |
| Method | I105 | I105 | | | | |
| Units | ppm | ppm | | | | |
| Detection Limit | 4 | 100 | | | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861166

A N A L A B S

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018400
Your reference : **132875**
Project code :
Date received : 15/03/01
Date reported : 23/03/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 1
Number of Samples : 40
First Sample : A033 165.69-166.69
Last Sample : A033 205.79-206.79

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :
Modem Y 23/03/01
Facsimile / /
Disk Report Y / /

Results to:

Results to:

Remarks :

Authorised by ..M.A. Good.....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861167

ANALABS

Our reference : BU018400
Your reference : 132875
Project code :
Report date : 23/03/01
Report status : Final
Page : 1 of 1

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Co | Cu | As | Zn | Cr |
|---|---|---|---|---|---|---|
| A033 165.69-166.69 | 1440 | 96 | 32 | <100 | 645 | 910 |
| A033 166.69-167.69 | 1.47% | 335 | 315 | <100 | 505 | 250 |
| A033 167.69-168.69 | 1.64% | 395 | 275 | <100 | 425 | 980 |
| A033 168.69-169.66 | 1550 | 90 | 30 | 150 | 1220 | 1530 |
| A033 169.66-170.66 | 1.68% | 450 | 50 | 160 | 970 | 1420 |
| A033 170.66-171.66 | 2970 | 105 | 145 | <100 | 625 | 1800 |
| A033 171.66-172.94 | 6540 | 205 | 170 | <100 | 610 | 1660 |
| A033 172.94-173.94 | 6070 | 195 | 105 | <100 | 855 | 610 |
| A033 173.94-174.94 | 8200 | 270 | 48 | <100 | 420 | 480 |
| A033 174.94-175.94 | 1.08% | 335 | 70 | 110 | 1380 | 930 |
| A033 175.94-176.94 | 8110 | 250 | 36 | <100 | 750 | 1940 |
| A033 176.94-177.94 | 4620 | 130 | 44 | <100 | 695 | 1450 |
| A033 177.94-179.32 | 1.27% | 365 | 125 | <100 | 740 | 2320 |
| A033 179.32-180.32 | 1460 | 48 | <25 | <100 | 325 | 1320 |
| A033 180.32-181.27 | 1170 | 42 | <25 | <100 | 150 | 980 |
| A033 181.27-182.27 | 1790 | 54 | <25 | <100 | 260 | 2240 |
| A033 182.27-183.35 | 5130 | 145 | 26 | <100 | 580 | 1310 |
| A033 183.35-184.35 | 7360 | 220 | 54 | <100 | 495 | 1990 |
| A033 184.35-185.15 | 1.03% | 310 | 230 | <100 | 340 | 2280 |
| A033 185.15-186.19 | 1920 | 66 | 34 | <100 | 225 | 2560 |
| A033 186.19-187.19 | 1.03% | 305 | 98 | 190 | 1450 | 3040 |
| A033 187.19-188.19 | 8250 | 260 | 46 | 190 | 680 | 1130 |
| A033 188.19-189.73 | 2.05% | 570 | 110 | 260 | 1130 | 3160 |
| A033 189.73-191.00 | 5040 | 140 | 225 | <100 | 340 | 860 |
| A033 191.00-192.00 | 3540 | 110 | 52 | <100 | 260 | 1630 |
| A033 192.00-193.00 | 4820 | 170 | 28 | <100 | 285 | 1280 |
| A033 193.00-194.00 | 1760 | 60 | <25 | <100 | 195 | 1130 |
| A033 194.00-195.00 | 3250 | 125 | <25 | <100 | 210 | 1170 |
| A033 195.00-196.00 | 2490 | 100 | <25 | <100 | 170 | 1260 |
| A033 196.00-197.00 | 1790 | 64 | <25 | <100 | 150 | 970 |
| A033 197.00-198.00 | 1710 | 66 | <25 | <100 | 215 | 1120 |
| A033 198.00-199.00 | 2330 | 94 | <25 | <100 | 380 | 1170 |
| A033 199.00-200.00 | 5840 | 195 | <25 | <100 | 365 | 1400 |
| A033 200.00-201.00 | 2660 | 96 | <25 | <100 | 215 | 960 |
| A033 201.00-202.00 | 2560 | 88 | <25 | <100 | 170 | 1230 |
| A033 202.00-203.00 | 4270 | 160 | <25 | <100 | 225 | 1390 |
| A033 203.00-203.86 | 1830 | 72 | <25 | <100 | 220 | 1380 |
| A033 203.86-204.86 | 4850 | 165 | <25 | <100 | 300 | 3190 |
| A033 204.86-205.79 | 1.18% | 340 | <25 | <100 | 235 | 1990 |
| A033 205.79-206.79 | 955 | 32 | <25 | <100 | 685 | 680 |
| *SS 3 174.94-175.94 | 1.02% | 310 | 56 | <100 | 1290 | 760 |
| *SS 3 201.00-202.00 | 2610 | 92 | <25 | <100 | 185 | 1220 |
| *Rep 3 195.00-196.00 | 2270 | 90 | <25 | <100 | 165 | 1120 |
| *Rep 3 199.00-200.00 | 6110 | 205 | <25 | <100 | 410 | 1360 |
| *Blk BLANK | <25 | <25 | <25 | <100 | <25 | <100 |
| *Std SU 1A | 1.20% | 385 | 9490 | <100 | 245 | 230 |
| *Std MHO | 5690 | 220 | 385 | <100 | 105 | 1120 |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 100 | 25 | 100 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861168

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018448
Your reference : **132877**
Project code :
Date received : 19/04/01
Date reported : 26/04/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 2
Number of Samples : 61
First Sample : 205.0-206.0
Last Sample : 278.0-280.1

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 26/04/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

A034

Remarks :

Authorised by .....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861169

ANALABS

Our reference : BU018448
Your reference : **132877**
Project code :
Report date : 26/04/01
Report status : Final
Page : 1 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | S | | |
|---|---|---|---|---|---|---|
| 205.0-206.0 | 86 | 40 | 78 | 2400 | | |
| 206.0-207.0 | 96 | 315 | 72 | 1.81% | | |
| 207.0-208.0 | 90 | 295 | 68 | 1.50% | | |
| 208.0-209.0 | 78 | 115 | 145 | 1950 | | |
| 209.0-210.0 | 86 | 195 | 74 | 8450 | | |
| 210.0-211.0 | 84 | 205 | 80 | 7850 | | |
| 211.0-212.0 | 90 | 165 | 62 | 5750 | | |
| 212.0-213.0 | 56 | 150 | 70 | 5850 | | |
| 213.0-214.0 | 66 | 195 | 48 | 9350 | | |
| 214.0-215.0 | 100 | 320 | 68 | 1.71% | | |
| 215.0-216.0 | 46 | 205 | 54 | 5350 | | |
| 216.0-217.0 | 60 | 275 | 50 | 9700 | | |
| 217.0-218.0 | 62 | 345 | 50 | 1.08% | | |
| 218.0-219.0 | 46 | 82 | 48 | 3650 | | |
| 219.0-220.0 | 32 | <25 | 40 | 1350 | | |
| 220.0-221.0 | 38 | 145 | 52 | 6050 | | |
| 221.0-222.0 | 76 | 265 | 66 | 5600 | | |
| 222.0-223.0 | 74 | 140 | 46 | 4300 | | |
| 223.0-224.0 | 52 | 210 | 58 | 7300 | | |
| 224.0-225.5 | 66 | 210 | 66 | 7050 | | |
| 225.5-226.5 | 48 | 700 | 50 | 2250 | | |
| 226.5-227.5 | 76 | 285 | 84 | 2600 | | |
| 227.5-228.5 | 130 | 265 | 78 | 2700 | | |
| 228.5-229.5 | 120 | 1090 | 150 | 2850 | | |
| 229.5-230.5 | 82 | 240 | 78 | 1750 | | |
| 230.5-231.5 | 160 | 200 | 130 | 3650 | | |
| 231.5-232.5 | 110 | 115 | 345 | 1400 | | |
| 232.5-233.5 | 64 | 72 | 90 | 700 | | |
| 233.5-235.0 | 125 | 475 | 125 | 8100 | | |
| 235.0-235.5 | 450 | 685 | 165 | 3.35% | | |
| 235.5-236.5 | 260 | <25 | 54 | 550 | | |
| 236.5-237.5 | 320 | 165 | 60 | 3750 | | |
| 237.5-238.5 | 200 | 405 | 50 | 5000 | | |
| 238.5-239.5 | 210 | 26 | 48 | 2150 | | |
| 239.5-240.5 | 265 | 280 | 60 | 7550 | | |
| 240.5-242.0 | 140 | 315 | 72 | 9650 | | |
| 242.0-243.0 | 130 | 595 | 145 | 1.84% | | |
| 243.0-244.0 | 160 | 535 | 135 | 2.05% | | |
| 244.0-245.0 | 185 | 250 | 92 | 9650 | | |
| 245.0-246.5 | 145 | 240 | 82 | 1.12% | | |
| 246.5-248.0 | 135 | 74 | 54 | 5400 | | |
| 248.0-249.5 | 88 | <25 | 48 | 2700 | | |
| 249.5-251.0 | 175 | 96 | 54 | 8950 | | |
| 251.0-252.0 | 115 | 390 | 76 | 1.58% | | |
| 252.0-253.0 | 265 | 545 | 130 | 3.20% | | |
| *Rep 207.0-208.0 | 125 | 270 | 66 | 1.50% | | |
| *Rep 224.0-225.5 | 66 | 220 | 68 | 7050 | | |
| *Blk BLANK | <25 | <25 | <25 | <500 | | |
| *Std SU 1A | 1.24% | 9640 | 385 | 6.70% | | |
| *Std MHO | 5750 | 375 | 215 | 1.27% | | |
| Method | I105 | I105 | I105 | I105 | | |
| Units | ppm | ppm | ppm | ppm | | |
| Detection Limit | 25 | 25 | 25 | 500 | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861170

ANALABS

Our reference : BU018448
Your reference : 132877
Project code :
Report date : 26/04/01
Report status : Final
Page : 2 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | S | | |
|---|---|---|---|---|---|---|
| 253.0-254.0 | 170 | 370 | 115 | 2.25% | | |
| 254.0-255.0 | 225 | 86 | 68 | 6000 | | |
| 255.0-256.0 | 210 | <25 | 58 | 1500 | | |
| 256.0-257.0 | 155 | 86 | 120 | 5550 | | |
| 257.0-258.0 | 210 | 405 | 245 | 2.55% | | |
| 258.0-260.0 | 210 | 68 | 175 | 4300 | | |
| 260.0-262.0 | 230 | 165 | 255 | 6750 | | |
| 262.0-264.0 | 160 | 205 | 230 | 4750 | | |
| 264.0-266.0 | 170 | 250 | 175 | 1.06% | | |
| 266.0-268.0 | 865 | 30 | 315 | 3700 | | |
| 268.0-270.0 | 510 | <25 | 260 | 1250 | | |
| 270.0-272.0 | 260 | 275 | 220 | 8100 | | |
| 272.0-274.0 | 210 | 475 | 185 | 1.10% | | |
| 274.0-276.0 | 260 | 235 | 190 | 5050 | | |
| 276.0-278.0 | 310 | 155 | 160 | 5050 | | |
| 278.0-280.1 | 3420 | <25 | 140 | 3050 | | |
| *SS 214.0-215.0 | 100 | 305 | 66 | 1.71% | | |
| *SS 239.5-240.5 | 255 | 280 | 58 | 7800 | | |
| *SS 276.0-278.0 | 300 | 155 | 160 | 5000 | | |
| *Rep 254.0-255.0 | 225 | 80 | 70 | 6150 | | |
| *Blk BLANK | <25 | <25 | <25 | <500 | | |
| *Std SU 1A | 1.20% | 9590 | 380 | 6.95% | | |
| *Std BM 44 | 1.32% | 735 | 405 | 2.05% | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | I105 | I105 | I105 | I105 | | |
| Units | ppm | ppm | ppm | ppm | | |
| Detection Limit | 25 | 25 | 25 | 500 | | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861171

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018452
Your reference : **132878**
Project code : Drill Core
Date received : 20/04/01
Date reported : 07/05/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 2
Number of Samples : 83
First Sample : A034 280.1-280.9
Last Sample : A034 433.0-434.5

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 07/05/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Remarks :

Authorised by .....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861172

ANALABS

Our reference : BU018452
Your reference : **132878**
Project code : Drill Core
Report date : 07/05/01
Report status : Final
Page : 1 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Ni (R) | Cu | Co | As | S |
|---|---|---|---|---|---|---|
| A034 280.1-280.9 | 6070 | -- | 125 | 200 | 440 | 1.51% |
| A034 280.9-281.7 | 4.40% | -- | 555 | 1380 | <100 | 6.90% |
| A034 281.7-283.0 | 6510 | -- | 76 | 210 | <100 | 1.19% |
| A034 283.0-284.0 | 2.10% | -- | 185 | 565 | <100 | 3.05% |
| A034 284.0-285.0 | 1.65% | -- | 130 | 480 | <100 | 2.20% |
| A034 285.0-286.0 | 3790 | -- | 54 | 140 | <100 | 5750 |
| A034 286.0-286.8 | 5610 | -- | 52 | 165 | <100 | 7150 |
| A034 286.8-288.0 | 1610 | -- | <25 | 68 | <100 | 1200 |
| A034 288.0-289.0 | 8170 | -- | 42 | 190 | <100 | 1.13% |
| A034 289.0-290.0 | 1.69% | -- | 110 | 385 | <100 | 2.55% |
| A034 290.0-290.5 | 3.20% | -- | 205 | 740 | 760 | 4.50% |
| A034 290.5-291.5 | 2350 | -- | <25 | 84 | <100 | 1050 |
| A034 291.5-292.5 | 1650 | -- | <25 | 58 | <100 | 1350 |
| A034 292.5-293.5 | 1860 | -- | 34 | 72 | <100 | <500 |
| A034 293.5-294.5 | 1320 | -- | <25 | 66 | <100 | 900 |
| A034 294.5-295.5 | 2230 | -- | <25 | 78 | 1190 | 3000 |
| A034 295.5-296.5 | 2030 | -- | <25 | 48 | 1130 | 1500 |
| A034 296.5-297.5 | 1530 | -- | <25 | 34 | 1100 | <500 |
| A034 297.5-298.5 | 1.14% | -- | 56 | 140 | 1.02% | 7350 |
| A034 298.5-299.5 | 1800 | -- | 32 | 76 | 290 | 2100 |
| A034 299.5-300.5 | 2650 | -- | 62 | 94 | 150 | 4600 |
| A034 300.5-302.0 | 1660 | -- | 26 | 56 | 300 | 2800 |
| A034 302.0-303.0 | 2120 | -- | 58 | 115 | <100 | 1.45% |
| A034 303.0-304.0 | 3070 | -- | 66 | 185 | <100 | 1.94% |
| A034 304.0-305.0 | 2330 | -- | 44 | 135 | 130 | 1.03% |
| A034 305.0-306.0 | 5940 | -- | 80 | 370 | 570 | 2.30% |
| A034 306.0-307.0 | 6380 | -- | 110 | 430 | 160 | 2.95% |
| A034 307.0-308.0 | 4180 | -- | 76 | 285 | <100 | 2.15% |
| A034 308.0-309.0 | 1860 | -- | 36 | 145 | <100 | 1.06% |
| A034 309.0-310.0 | 1340 | -- | 28 | 100 | <100 | 5400 |
| A034 310.0-311.0 | 1530 | -- | 30 | 100 | <100 | 6650 |
| A034 311.0-312.0 | 5080 | -- | 62 | 475 | 1190 | 1.81% |
| A034 312.0-313.0 | 3420 | -- | 46 | 185 | <100 | 1.39% |
| A034 313.0-314.0 | 4910 | -- | 74 | 270 | <100 | 2.25% |
| A034 314.0-315.0 | 2020 | -- | 36 | 120 | <100 | 8400 |
| A034 315.0-316.0 | 2090 | -- | 48 | 120 | <100 | 7550 |
| A034 316.0-317.0 | 3560 | -- | 98 | 190 | <100 | 1.63% |
| A034 317.0-318.0 | 3530 | -- | 48 | 150 | <100 | 1.30% |
| A034 318.0-319.0 | 4210 | -- | 96 | 175 | <100 | 1.51% |
| A034 319.0-320.0 | 2270 | -- | 58 | 120 | <100 | 9850 |
| A034 320.0-321.0 | 4370 | -- | 100 | 225 | <100 | 2.15% |
| A034 321.0-322.0 | 1470 | -- | 42 | 86 | <100 | 3500 |
| A034 322.0-323.0 | 1830 | -- | 58 | 135 | <100 | 1.07% |
| A034 323.0-324.0 | 2410 | -- | 92 | 190 | <100 | 1.51% |
| A034 324.0-325.0 | 2820 | -- | 90 | 220 | <100 | 1.93% |
| *Rep 034 290.5-291.5 | 2280 | -- | <25 | 84 | <100 | 800 |
| *Rep 034 323.0-324.0 | 2410 | -- | 96 | 190 | <100 | 1.67% |
| *Blk BLANK | 30 | -- | <25 | <25 | <100 | <500 |
| *Std SU 1A | 1.21% | -- | 9070 | 390 | <100 | 6.40% |
| *Std MHO | 5700 | -- | 380 | 220 | <100 | 1.33% |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 25 | 100 | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861173

ANALABS

Our reference : BU018452
Your reference : **132878**
Project code : Drill Core
Report date : 07/05/01
Report status : Final
Page : 2 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Ni (R) | Cu | Co | As | S |
|---|---|---|---|---|---|---|
| A034 325.0-326.0 | 6530 | -- | 98 | 270 | <100 | 2.30% |
| A034 326.0-327.0 | 1.06% | -- | 86 | 340 | <100 | 2.60% |
| A034 398.0-399.0 | 4270 | -- | 56 | 150 | <100 | 1.42% |
| A034 399.0-400.0 | 2630 | -- | 62 | 125 | <100 | 8150 |
| A034 400.0-401.0 | 2480 | -- | 42 | 125 | <100 | 7950 |
| A034 401.0-402.0 | 2480 | -- | 42 | 74 | <100 | 6150 |
| A034 402.0-403.0 | 2700 | -- | 82 | 110 | <100 | 1.34% |
| A034 403.0-404.0 | 2450 | -- | 38 | 115 | <100 | 9600 |
| A034 404.0-405.0 | 2470 | -- | 28 | 110 | <100 | 7150 |
| A034 405.0-406.0 | 3350 | -- | 36 | 125 | <100 | 10000 |
| A034 406.0-407.0 | 2150 | -- | 72 | 125 | <100 | 1.12% |
| A034 407.0-408.0 | 2150 | -- | 100 | 170 | <100 | 1.73% |
| A034 408.0-409.0 | 2130 | -- | 120 | 180 | <100 | 1.80% |
| A034 409.0-410.0 | 2290 | -- | 115 | 185 | <100 | 1.96% |
| A034 410.0-411.0 | 2800 | -- | 120 | 200 | <100 | 1.80% |
| A034 411.0-412.0 | 2860 | -- | 74 | 170 | <100 | 1.54% |
| A034 412.0-413.0 | 2290 | -- | 48 | 125 | <100 | 8100 |
| A034 413.0-414.0 | 2630 | -- | 74 | 155 | <100 | 1.18% |
| A034 414.0-415.0 | 3540 | -- | 80 | 225 | <100 | 1.88% |
| A034 415.0-416.0 | 1740 | -- | 64 | 125 | <100 | 7850 |
| A034 416.0-417.0 | 1610 | -- | 105 | 130 | <100 | 8550 |
| A034 417.0-418.0 | 1850 | -- | 86 | 130 | <100 | 8200 |
| A034 418.0-419.0 | 4260 | 4210 | 235 | 300 | <100 | 2.70% |
| A034 419.0-420.0 | 4290 | 4210 | 350 | 380 | <100 | 3.70% |
| A034 420.0-421.0 | 3860 | 3800 | 405 | 410 | <100 | 3.65% |
| A034 421.0-422.0 | 3480 | 3570 | 570 | 470 | <100 | 3.75% |
| A034 422.0-423.0 | 4980 | 4870 | 730 | 630 | <100 | 4.35% |
| A034 423.0-424.0 | 4230 | 4020 | 530 | 535 | <100 | 3.85% |
| A034 424.0-425.0 | 4930 | 4870 | 930 | 780 | <100 | 5.15% |
| A034 425.0-426.0 | 3170 | 2860 | 410 | 400 | <100 | 3.35% |
| A034 426.0-427.0 | 2730 | 2650 | 275 | 240 | <100 | 2.60% |
| A034 427.0-428.0 | 1270 | -- | <25 | 60 | <100 | 3150 |
| A034 428.0-429.0 | 2450 | -- | 68 | 140 | <100 | 9600 |
| A034 429.0-430.0 | 2120 | -- | 56 | 115 | <100 | 8300 |
| A034 430.0-431.0 | 1880 | -- | 28 | 100 | <100 | 4500 |
| A034 431.0-432.0 | 1940 | -- | <25 | 60 | <100 | 3950 |
| A034 432.0-433.0 | 3130 | -- | 62 | 125 | <100 | 1.06% |
| A034 433.0-434.5 | 2610 | -- | 110 | 165 | <100 | 1.79% |
| *SS 034 289.0-290.0 | 1.68% | -- | 84 | 380 | <100 | 2.60% |
| *SS 034 314.0-315.0 | 2000 | -- | 34 | 115 | <100 | 8300 |
| *SS 034 410.0-411.0 | 2880 | -- | 115 | 205 | <100 | 1.86% |
| *Rep 034 422.0-423.0 | 4950 | -- | 710 | 620 | <100 | 4.65% |
| *Rep 034 432.0-433.0 | 3210 | -- | 56 | 130 | <100 | 1.08% |
| *Blk BLANK | <25 | -- | <25 | <25 | <100 | <500 |
| *Std SU_1A | 1.17% | -- | 9200 | 375 | <100 | 6.45% |
| *Std BM_44 | 1.34% | -- | 725 | 420 | <100 | 2.15% |
| Method | I105 | I105 | I105 | I105 | I105 | I105 |
| Units | ppm | ppm | ppm | ppm | ppm | ppm |
| Detection Limit | 25 | 25 | 25 | 25 | 100 | 500 |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861174

# ANALABS

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

Our reference : BU018458
Your reference : **132879**
Project code : Core Samples
Date received : 27/04/01
Date reported : 07/05/01

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Number of pages of results : 2
Number of Samples : 48
First Sample : A034 327.0-328.0
Last Sample : A034 397.0-398.0

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
C/Newnham Exploration & Mining Service
PO Box 183
EXETER
TAS 7275

Electronic Data Transmission :

| | | |
|---|---|---|
| Modem | | Y 07/05/01 |
| Facsimile | | / / |
| Disk Report | Y | / / |

Results to:

Results to:

Remarks :

Authorised by ....m.a. Good.....
On behalf of:

Rob Chapman
Laboratory Manager

The results in the following analytical report pertain to the samples provided to this laboratory for preparation and/or analysis as requested by the client.

861175

ANALABS

Our reference : BU018458
Your reference : **132879**
Project code : Core Samples
Report date : 07/05/01
Report status : Final
Page : 1 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | As | S | |
|---|---|---|---|---|---|---|
| A034 327.0-328.0 | 3010 | 200 | 190 | <100 | 4.10% | |
| A034 328.0-329.0 | 1960 | 195 | 180 | <100 | 3.15% | |
| A034 329.0-330.0 | 2370 | 215 | 210 | <100 | 2.80% | |
| A034 330.0-331.3 | 7090 | 140 | 270 | 110 | 2.35% | |
| A034 331.3-332.0 | 1.65% | 465 | 815 | <100 | 9.55% | |
| A034 332.0-333.0 | 3880 | 245 | 215 | <100 | 2.40% | |
| A034 333.0-334.0 | 2210 | 105 | 125 | <100 | 1.14% | |
| A034 334.0-335.0 | 4380 | 100 | 220 | <100 | 2.15% | |
| A034 335.0-336.0 | 3270 | 78 | 140 | <100 | 1.13% | |
| A034 336.0-337.0 | 2970 | 74 | 135 | <100 | 9550 | |
| A034 337.0-338.0 | 2230 | 38 | 105 | <100 | 5800 | |
| A034 338.0-339.0 | 4700 | 105 | 215 | <100 | 1.61% | |
| A034 339.0-340.0 | 4160 | 100 | 150 | <100 | 1.10% | |
| A034 341.0-342.0 | 3800 | <25 | 100 | <100 | 3900 | |
| A034 343.0-344.0 | 2870 | <25 | 80 | 110 | 2800 | |
| A034 345.0-346.0 | 2100 | <25 | 74 | <100 | 2050 | |
| A034 347.0-348.0 | 1980 | 62 | 74 | <100 | 1900 | |
| A034 349.0-350.0 | 2170 | 30 | 88 | <100 | 2500 | |
| A034 351.0-352.0 | 2060 | 48 | 80 | <100 | 2300 | |
| A034 353.0-354.0 | 1940 | 26 | 74 | <100 | 1450 | |
| A034 355.0-356.0 | 2580 | 30 | 90 | <100 | 2100 | |
| A034 357.0-358.0 | 1870 | 64 | 66 | <100 | 1250 | |
| A034 359.0-360.0 | 2400 | 52 | 78 | <100 | 1950 | |
| A034 361.0-362.0 | 2810 | 40 | 88 | 120 | 2300 | |
| A034 363.0-364.0 | 2990 | 72 | 98 | 150 | 2450 | |
| A034 365.0-366.0 | 3360 | 34 | 90 | 160 | 2250 | |
| A034 367.0-368.0 | 3100 | 80 | 105 | 120 | 2400 | |
| A034 369.0-370.0 | 2400 | 115 | 84 | <100 | 2100 | |
| A034 371.0-372.0 | 2860 | 68 | 100 | 200 | 3150 | |
| A034 373.0-374.0 | 2410 | 130 | 86 | <100 | 3550 | |
| A034 375.0-376.0 | 4190 | 52 | 130 | 300 | 6050 | |
| A034 377.0-378.0 | 2420 | 34 | 92 | <100 | 3050 | |
| A034 379.0-380.0 | 1890 | 28 | 84 | <100 | 2250 | |
| A034 381.0-382.0 | 2660 | 38 | 120 | <100 | 4300 | |
| A034 383.0-384.0 | 1650 | 26 | 80 | <100 | 2550 | |
| A034 385.0-386.0 | 1720 | 32 | 88 | <100 | 2850 | |
| A034 386.0-387.0 | 2460 | 46 | 110 | <100 | 5650 | |
| A034 387.0-388.0 | 2080 | 62 | 94 | <100 | 4650 | |
| A034 388.0-389.0 | 2090 | 44 | 105 | <100 | 4150 | |
| A034 389.0-390.0 | 4390 | 82 | 185 | <100 | 8950 | |
| A034 390.0-391.0 | 2120 | 48 | 105 | <100 | 4700 | |
| A034 391.0-392.0 | 3440 | 86 | 140 | <100 | 8850 | |
| A034 392.0-393.0 | 3810 | 90 | 160 | <100 | 1.13% | |
| A034 393.0-394.0 | 5790 | 110 | 195 | <100 | 1.52% | |
| A034 394.0-395.0 | 5770 | 105 | 185 | <100 | 1.45% | |
| *Rep 034 375.0-376.0 | 4190 | 34 | 130 | 270 | 6150 | |
| *Rep 034 385.0-386.0 | 1760 | 32 | 90 | <100 | 2900 | |
| *Blk BLANK | <25 | 36 | <25 | <100 | <500 | |
| *Std SU 1A | 1.22% | 9440 | 385 | <100 | 6.85% | |
| *Std MHO | 5570 | 400 | 210 | <100 | 1.41% | |
| Method | I105 | I105 | I105 | I105 | I105 | |
| Units | ppm | ppm | ppm | ppm | ppm | |
| Detection Limit | 25 | 25 | 25 | 100 | 500 | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received

861176

A N A L A B S

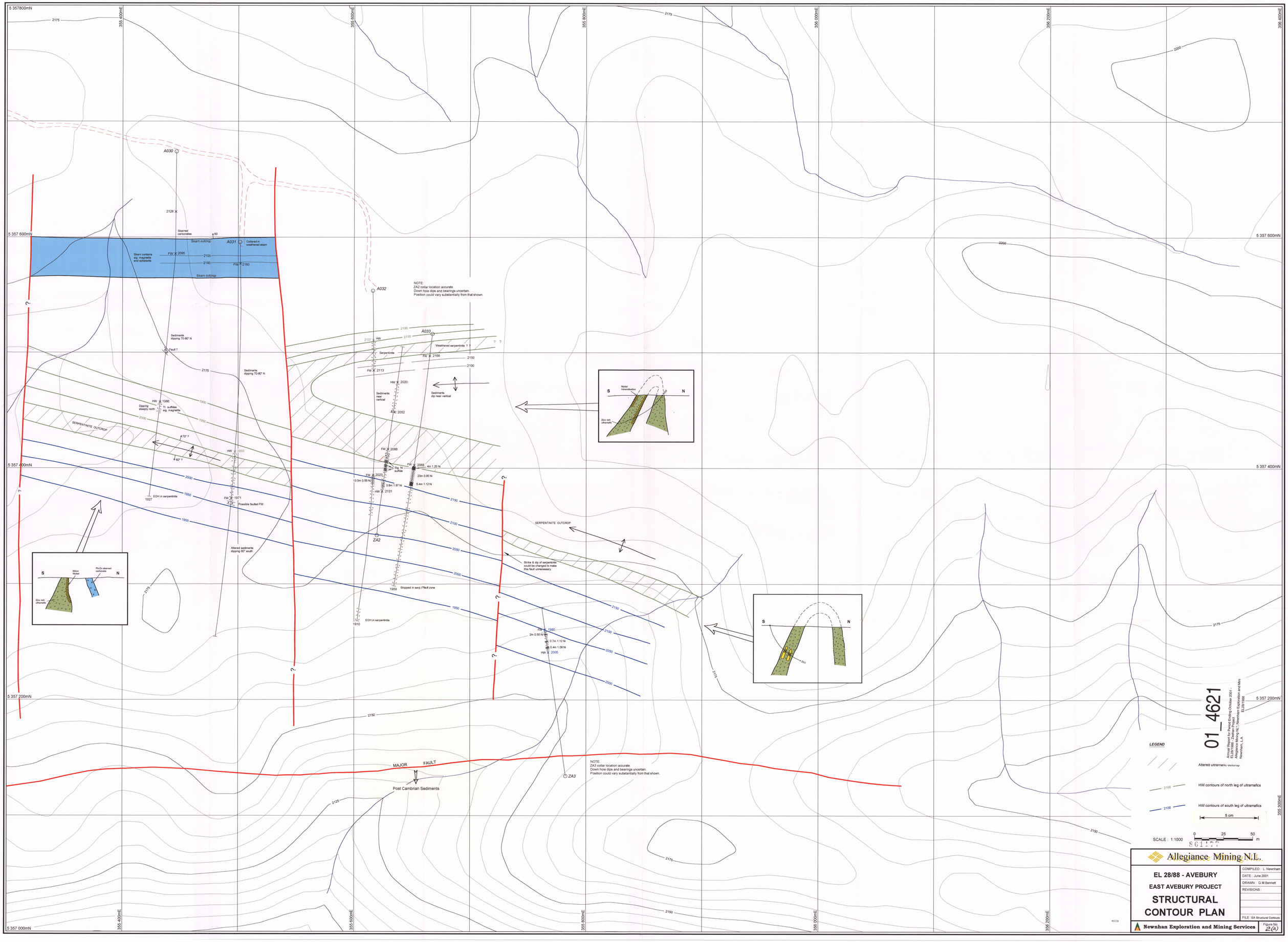
Our reference : BU018458
Your reference : **132879**
Project code : Core Samples
Report date : 07/05/01
Report status : Final
Page : 2 of 2

**Analabs Pty. Ltd.**
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

# ANALYTICAL DATA

| Sample | Ni | Cu | Co | As | S | |
|---|---|---|---|---|---|---|
| A034 395.0-396.0 | 5370 | 76 | 180 | 110 | 1.35% | |
| A034 396.0-397.0 | 6160 | 115 | 220 | <100 | 2.10% | |
| A034 397.0-398.0 | 3190 | 88 | 130 | <100 | 1.07% | |
| *SS 034 336.0-337.0 | 2780 | 82 | 125 | <100 | 9050 | |
| *SS 034 383.0-384.0 | 1680 | 38 | 82 | <100 | 2600 | |
| *Rep 034 397.0-398.0 | 3110 | 86 | 130 | <100 | 9600 | |
| *Blk BLANK | <25 | 30 | <25 | <100 | <500 | |
| *Std SU_1A | 1.22% | 9480 | 385 | <100 | 7.10% | |
| *Std BM_44 | 1.30% | 735 | 395 | <100 | 2.20% | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Method | I105 | I105 | I105 | I105 | I105 | |
| Units | ppm | ppm | ppm | ppm | ppm | |
| Detection Limit | 25 | 25 | 25 | 100 | 500 | |

Notes: N.A. = not analysed, -- = element not determined, I.S. = insufficient sample, L.N.R. = listed not received



5 357800mN
5 357 600mN
5 357 400mN
5 357 200mN
5 357 000mN
355 400mE
355 600mE
355 800mE
356 000mE
356 200mE
356 400mE
355 300mE
A030
A031
A032
A033
ZA2
ZA3
Skarned carbonates
Skarn outcrop
Collared in weathered skarn
Skarn contains sig. magnetite and sphalerite
Sediments dipping 70-80° N
Fault ?
Dipping steeply north
Tr. sulfides sig. magnetite
SERPENTINITE OUTCROP
EOH in serpentinite
Possible faulted FW
Altered sediments dipping 60° south
Weathered serpentinite ? ?
Serpentinite
Sediments near vertical
Sediments dip near vertical
Sig. Ni sulfide
Stopped in serp./?fault zone
Strike & dip of serpentinite could be changed to make this fault unnecessary.
NOTE:
ZA2 collar location accurate.
Down hole dips and bearings uncertain.
Position could vary substantially from that shown.
NOTE:
ZA3 collar location accurate.
Down hole dips and bearings uncertain.
Position could vary substantially from that shown.
MAJOR FAULT
Post Cambrian Sediments
Nickel mineralisation
Zinc rich ultramafic
Minor Nickel
Pb-Zn skarned carbonate
S
N
LEGEND
Altered ultramafic outcrop
HW contours of north leg of ultramafics
HW contours of south leg of ultramafics
5 cm
SCALE : 1:1000
0 25 50 m
01_4621
Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining N.L.* Newnham Exploration and Mini
Newnham, L.A.
EL28/1988
861177
Allegiance Mining N.L.
EL 28/88 - AVEBURY
EAST AVEBURY PROJECT
STRUCTURAL CONTOUR PLAN
COMPILED : L. Newnham
DATE : June 2001
DRAWN : G.M.Bennett
REVISIONS :
FILE : EA Structural Contours
Newnhan Exploration and Mining Services
Figure No. 2(a)

355 200mE | 355 300mE | 355 400mE | 355 500mE | 355 600mE | 355 700mE | 355 800mE

2200mR.L.

IP, mag and geochem anomalies

Mag anomaly

2100mR.L.

**A002**
Northern host HW
No sig. min.

**A002**
Southern host HW
No sig. min.

FAULT

?

2000mR.L.

**A030** HW
Tr. sulfides
sig. mag.

Hole ended in serp.

**A031**
Serp. northern contact
Minor min.

Serp. southern contact
No min.

**ZA2**

Hole position uncertain

HW
Southern Host — 3.8m 1.67% Ni
Intervals of sig Ni

FW

**A033**
Southern Host — FW
23m 0.85% Ni
Incl. 4m 1.25% Ni
and 5.4m 1.12% Ni

FW

Northern Host
2-3m 0.5-1.0% Ni
Several narrow intervals

HW
FW Southern Host
13.5m 0.55% Ni
(Incl. 0.3m 2.1% Ni)

Hole ended in serp.

**A032** Hole ended in serp.

HW
0.4m 1.09% Ni
0.7m 1.12% Ni — Southern Host ?
2.0m 0.55% Ni
FW

Hole position approximate

**ZA3**

1900mR.L.

PROBABLE EAST PLUNGING ZONE OF MINERALISATION

1800mR.L.

## LEGEND

**A011** FW/HW — Points where drill hole pierced hangingwall (HW) or footwall (FW) of ultramafic.

● 12m 2.51 Ni — Existing drill intersection showing horizontal thickness and nickel grade.

5 cm

# 01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini Newnham, L.A. EL28/1988

Longitudinal Projection parallel to AMG, looking North.
R.L. = M.S.L. + 2000m.

SCALE : 1:1000 — 0 25 50 m

Allegiance Mining N.L.

86178

**AVEBURY PROJECT**

**LONGITUDINAL PROJECTION**

**EAST AVEBURY**

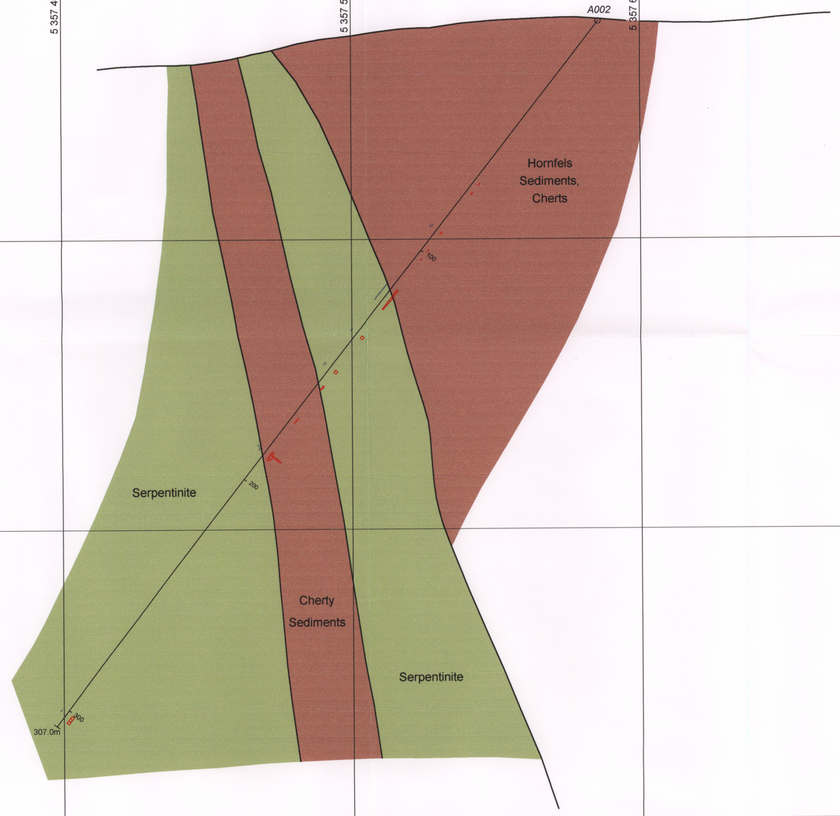
| | |
|---|---|
| COMPILED : | L. Newnham |
| Date : | June 2001 |
| DRAWN : | G.M.Bennett |
| REVISIONS : | |
| FILE : | Avebury LS East |

Newnhan Exploration and Mining Services

Figure No. 26

5 357 200mN | 5 357 300mN | 5 357 400mN | 5 357 500mN | 5 357 600mN | 5 357 700mN | 5 357 800mN

2100mR.L.
2000mR.L.
1900mR.L.
1800mR.L.
1700mR.L.




5 cm

**LEGEND**

- Nickel mineralisation
- Serpentinite
- Hornfelsed and silicified sediments, cherts; extensively altered
- Fault

01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL"; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

Sulphur Histogram
1cm = 5%

Bedding obsereved in core

Nickel Histogram
1cm = 2%

***NOTE:***
MOST DRILL HOLES ARE OBLIQUE TO SECTION

SCALE : 1:1000 0 25 50 m

Allegiance Mining N.L.

861176

**EL 28/88 - AVEBURY PROSPECT**

**CROSS SECTION**

**355 225mE**

**ASSAY RESULTS - Ni and S**

COMPILED : L. Newnham
Date : May 2001
DRAWN : G.M.Bennett
REVISIONS :
FILE : XS 355225_1000.dwg

**Newnhan Exploration and Mining Services**

Figure No. 2(c)

5 357 200mN | 5 357 300mN | 5 357 400mN | 5 357 500mN | 5 357 600mN | 5 357 700mN

5 357 200mN
5 357 300mN
5 357 400mN
5 357 500mN
5 357 600mN
5 357 700mN
5 357 800mN

2100mR.L.
2000mR.L.
1900mR.L.
1800mR.L.
1700mR.L.

A030

Siltstones, volcaniclastics
minor cherts

Sediments

Significant Pb-Zn min
Incl. 2m 1.03% Zn

Actinolite-epidote-quartz skarn
Limestone, minor sph, gal
Actinolite-epidote-qtz skarn
Actinolite-epidote-magnetite-garnet skarn
Cherty sediments, volcaniclastics, minor skarn
Actinolite-epidote-magnetite skarn

Sediments

Skarn
(after calcareous
sediment)

Chert, siltstone, volcaniclastics

Serpentinite

Fault breccia

Siltstone, chert, volcaniclastics

Serpentinite with magnetite

393.1m

## LEGEND

- Skarn (Altered calcareous sediments)
- Serpentinite (Altered ultramafics)
- Altered siliceous sediments
- Fault

5 cm

Sulphur Histogram
1cm = 5%

Bedding obsereved
in core

Nickel Histogram
1cm = 2%

01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

SCALE : 1:1000

m

Allegiance Mining N.L.

861280

**EL 28/88 - AVEBURY PROSPECT**

**EAST AVEBURY**

**CROSS SECTION**

**355 450mE**

| | |
|---|---|
| COMPILED : | L. Newnham |
| Date : | May 2001 |
| DRAWN : | G.M.Bennett |
| REVISIONS : | |
| | |
| | |
| | |
| FILE : | XS 355450_1000.dwg |

Newnhan Exploration and Mining Services

Figure No. 2(d)

5 357 200mN
5 357 300mN
5 357 400mN
5 357 500mN
5 357 600mN
5 357 700mN
5 357 800mN

2100mR.L.
2000mR.L.
1900mR.L.
1800mR.L.
1700mR.L.

A031
A031

Clay, minor epidote rock
Magnetite skarn
Chert, siltstone, volcaniclastics
Epidote-qtz skarn, chert
Hornfelsed sediments
Skarn (after calcareous sediment)

Possible Anticlinal Axis

Serpentinite
Sediments
Interbedded cherts, hornfelsed seds actinolite skarns, brecciated cherts

Minor pyrrhotite, pent
Serpentinite, very broken rubbly in places
Possible faulted southern margin
Very broken, possible faulting
Contact near vertical

Interbedded cherts, hornfelsed sediments, actinolite skarns
Limestone
Hornfels, cherts actinolite skarns
Sediments

## LEGEND

- Skarn (Altered calcareous sediments)
- Serpentinite (Altered ultramafics)
- Altered siliceous sediments
- Fault

5 cm

Sulphur Histogram
1cm = 5%

Bedding obsereved in core

Nickel Histogram
1cm = 2%

01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A.
EL28/1988

SCALE : 1:1000

0 25 50 m

Allegiance Mining N.L.

861781

**EL 28/88 - AVEBURY PROSPECT**

**EAST AVEBURY**

**CROSS SECTION**

**355 500mE**

| | |
|---|---|
| COMPILED : | L. Newnham |
| Date : | May 2001 |
| DRAWN : | G.M.Bennett |
| REVISIONS : | |
| FILE : | XS 355500_1000.dwg |

Newnhan Exploration and Mining Services

Figure No. 2(e)

5 357 200mN
5 357 300mN
5 357 400mN
5 357 500mN
5 357 600mN
5 357 700mN
5 357 800mN

2100mR.L.
2000mR.L.
1900mR.L.
1800mR.L.
1700mR.L.

ZA2
A032

Serpentinite
Serpentinite (altered ultramafics)
3.85m 1.67% Ni
2.6m 0.59% Ni
Tremolitic Altered ultramafics
2.3m 0.89% Ni
Fault ?
1.4m 0.56% Ni

Sediments
Chert, siltstone, volcaniclastics
Serpentinite
Only tr Ni
Breccia, fault ?
Serpentinite
Chert, hornfels, epidote skarned units

Sediments
Sediments
Serpentinite
Breccia zone
Serpentinite with magnetite
2.2m 0.57% Ni
1.1m 0.98% Ni
Calc-silicate
Serpentinite/ altered limestone chert
Chert, hornfels diopxinite skarns
possible fault
Serpentinite
Siltstones
13.5m 0.55% Ni (Pentlandite)
Mafic volcanics
255.5

Minor Ni
2m >1.5% Zn
Tremolite, quartz-calcite serpentinite rocks with significant Zn (? altered carbonates ? or altered ultramafics ?)
Chert
Tremolite,/serpentinite calcite rock
Serpentinite/silicate rock with nicolite to 0.54% Ni and significant sphalerite
Pale green silicate rock with spotty Ni to 0.7%
396.5m
Serpentinite
?

NOTE:
ZA2 is difficult to correlate with adjacent holes.
Downhole survey data is not available for checking.

It is possible camera dips as read were not subtracted from 90°
(ie) they are read from the vertical rather than horizontal.

Hole should be relogged and collar checked for dip, bearing and co-ords.

## LEGEND

- Skarn (Altered calcareous sediments)
- Serpentinite (Altered ultramafics)
- Altered siliceous sediments
- Fault

Sulphur Histogram
1cm = 5%

Bedding obsereved in core

Nickel Histogram
1cm = 2%

5 cm

SCALE : 1:1000

0 25 50 m

Allegiance Mining N.L.

861182

**EL 28/88 - AVEBURY PROSPECT**

**EAST AVEBURY**

**CROSS SECTION**

**355 600mE**

COMPILED : L. Newnham
Date : May 2001
DRAWN : G.M.Bennett
REVISIONS :
FILE : XS 355600_1000.dwg

Newnhan Exploration and Mining Services

Figure No. 23

01-462

5 357 200mN | 5 357 300mN | 5 357 400mN | 5 357 500mN | 5 357 600mN | 5 357 700mN | 5 357 800mN

2100mR.L.
2000mR.L.
1900mR.L.
1800mR.L.
1700mR.L.

A033

Weathered rock and clay with core loss
? serp ?/skarn ?

Sediments

Chert, volcaniclastics,
skarned sediments, actinolite rocks

Chert, volcaniclastics,

Bedding near vertical

Serpentinite

Serpentinite, tremolite,
brecciated in places
significant sulfides

Sulfide zone

166.69 - 189.73 : 23m 0.85% Ni
Incl. 166.69 - 170.66 : 3.97m 1.25% Ni
184.35 - 189.73 : 5.38m 1.12% Ni

Calcite, quartz, feldspar amphibole rock
(? altered ultramafics ?)

315.5m

Hole stopped in serpentinite

## LEGEND

- Skarn (Altered calcareous sediments)
- Serpentinite (Altered ultramafics)
- Altered siliceous sediments
- Fault

5 cm

Sulphur Histogram
1cm = 5%

Bedding obsereved
in core

Nickel Histogram
1cm = 2%

01_4621

Annual Report for Period Ending October 2001 -
EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A.

EL28/1988

SCALE : 1:1000

0 25 50 m

Allegiance Mining N.L.

861183

EL 28/88 - AVEBURY PROSPECT

EAST AVEBURY

CROSS SECTION

355 650mE

| | |
|---|---|
| COMPILED : | L. Newnham |
| Date : | May 2001 |
| DRAWN : | G.M.Bennett |
| REVISIONS : | |
| FILE : | XS 355650_1000.dwg |

Newnhan Exploration and Mining Services

Figure No. 2(9)

# EL 28/98

# EL 22/97

Little Henty River

350600 mE
350800 mE
351000 mE
351200 mE
351400 mE

5355600 mN
5355400 mN
5355200 mN
5355000 mN

irregular exterior(breccia?), fol(w), perv bn-sil(x), mag(w), relict Um&fg wacke? texture

scree, ironstone with q-vst selvages

scree, greyl/rrn sil(x)-mag(w,dxs)

haxby breccia(fault)?-textured exterior, bn sil(x), druxy q-vnd(m)

relict Um, bn sil(m/x), mag(dm/y), numerous cavities/vugs locally

bn sil(m/x), druxy q-vnd(w), mag(vw), local relict Um-texture, selvages serp?(m)

float altered Um, mag(m), sil(m), ferruginous FeOx(m)

float altered Um, mag(m), sil(m), ferruginous float FeOx(m)

float gossanous relict mg Um, bn semi-perv sil(w/m), mag(m/x), FeOx(m/x)

float FeOx(m/x), bn sil(m)&druxy q-vnd(m)

silicified fault breccia, comprising zones sil-mag(m) & bn chalcedony-len-vnd, mag(w) & bn chalcedony/sil (m/x), mag(w/m, dxs & vnd) & bn sil-mag altered Um & bn chert with semi-perv translucent q vns

Fault breccia? - mg altered Um-texture, mag(m/x,dssdsemi-perv), bn sil(x), lft bn druxy q bleed vugs(w/m), local cherty clasts

mov serpentinite
om/grey perv-sil(x), mag(1%,dss-cg) grab float, serp-vnd/-grey sil-pyr/fr? (0.5%,local), serp(x)
mixed float, dbn hornfels gwacke, relict mg Um-serp(m), mov serp, sil-serp altered Um and sil-mag altered frags
serp(x), aphanitic opaline

dgrey fg hornfels, serp-vnd(w,local)

grey schist

dbn mg hornfels with mov serp-patches/vns(w/m)

dgrey schist, fol(x), serp?(w), FeO stain(w)
pgn siliceous(sil-w) sst?, serp-vnd(l/r) & fleckis(w), calc-sil?(w), mag/dromite?(w, dss),

fg q-sst

float fossiliferous? cobble-congl & q-sst

wed q-sst & orm siliceous fg sst

62
79
grey & gn slst, lam bdd local, vfg pyr(4%,dss), serp(l/r), local serp-py-vnd(w)

hornfels fg gwacke & dgrey fol(m/x)slst, py(2%local)

brecia?-haxby exterior, zones of FeOx(m) & bn & grey sil-mag(m)

ferruginous breccia zone (clasts<10cm), fol(w), minor pyg,/pgn carb?-cpt,bn sil-vnd&semi-perv(m/x) with bright,gn flecks(r)& mag(x,dss & vnd)

Breccia-textured lft bn hornfels(x) with tan mg q-vst clasts locally evident, haxby exterior, pervassive bn sil(x), mag-vnd(w/m), q-vnd(w/m), wed FeO-vnd(m)

80

mostly sil(x)-perv with later bn q-vnd(commonly vuggy with druxy q), local gossanous vug fill, mag(w)-vnd & dss, local grey q after sil-serp

boulder scree, serp(m, to m/k)-vnd & locally perv, bn sil (m) zones, q-vnd(l/r on fldg/ w/m), sil-serp-vnd(m)

float, chaotic breccia texture, serp(m)-vnd matrix

grab, bn sil(x), semi-perv & vnd mag(m/k)

pgn/bn Um? sil(m), mag(w/m)

gn mg mafic gabbro (25% often acicular feld), serp(m), sil-serp-vnd(w), sulphide?(tr)

float, bn sil(m/k) with local druxy q, mag-vnd(m)

gn perv-serp(m/k), sil(w/m)-py?(tr, dss), mag(w), local fragmental appearance with relict sst?

gn serp(w/m), relict mg mafic, patchy sil(w/m)

gn perv-serp(m/k), sil(w/m)-py?(tr, dss), mag(w), local fragmental appearance with relict sst?, minor float bn sst with milky q-vnd

dgn Um, serp(m/k), pgn serp-sil-vnd(w/m)

lft bn sil(x), mag(w)

bn hornfels, sil(m/k), druxy-q bleed vugs(w)

sparse scree

om&gn perv sil & sil-serp?(x)

bn hornfels, sil(m/k), bn sil-vnd with druxy-q bleed v ugs(w/m), semi-perv mag(w/m),

gn serp(m/k) Um, mag/sil(lft, vnd & semi-perv)

pgn fgling Um?, bn sil-vnd(w/m)

pgn mod wed serpentinite(x), mag-vnd(w) & dss(0.5%), appears leached

gossanous(w) breccia? mottled irregular cavity filled surface, highly indurated, bn sil(m/x), bn druxy q vug(w), mag(w), (gn ppl/fungal?, tr)

bn fg gwacke/hornfels(s)

dbn fg & mg hornfels gwacke, thin bdd, sil-serp-vnd(w)

gwacke, ser-vnd(w)

35
63

pgn perv-sil-serp(m), with dgn serp-sil-vnd(w), fg wacke/slst?

pgn sil-serp(m), serp(m,local), fg gwacke/hornfels

fg & mg hornfels, sil-serp(m)

88
40

70
98

dgrey fg hornfels/slst, py-vnd(w,0.5%)

Ultramafic, bleached/leached wed cg serp appearance, semi-perv mag(w/m), Averbergite?(tr, translucent gn mineral)

boulder sloape bn sil(x), semi-perv & lmd mag(w)

scree/subcrop? bn sil(x), mag(w/m), bn druxy q common

orm/lft bn siliceous sst, sparse dss mag/chromite grains

"bn sil(x), perv mag(m)

lft bn weakly siliceous schist-fol(m), weak breccia texture locally, sil-mag-vnd(w)

float, gossanous FeO(w/m), semi-perv/relict mag(m/k), perv sil(w/m)

gossanous ironstone, perv mag(m/k), q stickiness locally

gossanous FeOx(w/m), pgn wed(w/m) Um, mag semi-perv & vnd(m)

pgn Um, mag-vnd (m)

wed pgn Um, mag (w/m ), rd hm stain(w),

mod gossanous pgn sil(x), mag(m) float

orn siliceous breccia -textured vfg sst/slst?, bk mag-vnd(w/m)

wed(m) mg Um, mag(w), sil-vnd(w)

lft pgn wed/bl/ched Um, mag(w to w/m, vnd),

lft gn mod wed serpentinite(x), mag/w/m, semi-perv vnd)

pgn mg Um, mag-vnd(w)

trace float, pgn Um, mag(w)

lft gn mod wed serpentinite(x), mag (w/m, semi-perv vnd), bleached appearance

pgn mod wed serpentinised mafic/trov serp(x), mag vnd(w) & dss(0.5%), appears leached

dgn wed gossanous Um, mag-vnd(m), zones of siliceous FeO-chalcedony, minor float orn sil-vnd(w/m) dgrey slst

lft bn slst & orm fg sst, sil-serp-vnd(w ,tr-0.5%)

trench with fg sst, bn FeO(w), relict py(tr)

pgn slst & fg siliceous sst, thinbdd

tan & pgn perv-sil(m), semi-perv & vnd-mag(m) altered rock

subcrop,/float, pgn wed mg Um texture locally in semi-perv mag(m)

workings dump, orm/pgn wed/bleached appearing clay after serp?

boulder, mov mag/hm, with selvages fg sst-mag(m/k, dss)

boulder, semi mov mag(m/k), sil(m), relict Um?/faulted?

grey mg q-sst, with pgn sil-serp (w/m)

mg/qg q-sst & silicified sst

float bn sil(x) hornfels?, rileg(w/m) subcrop and float pgn wed/bleached Um, mag(w to w/m, vnd)

float wed gossanous ironstone (sampled) & lft bn siliceous fg sst

lft tan wed mg Um, local cataclasite texture?, dss & vnd mag(w), bn sil-vnd(l/r)

float, relict Um(sampled), Silurian sst & bn sil(m/k) with semi-perv-mag(m) & druxy q bleed vugs(w/m)

relict mg Um texture?, translucent perv sil(m), sil-serp-vnd(w/m)

orm/pgn fgling Um, leached appearing, fol(w/m), translucent q-vn(w), semi-perv mag(w, local), locally shlstose

relict Um? local clastic/breccia texture, wnd & dss mag/wm, locally m\, gn serp(m) patches

bn sil(m/x),mag(w/m, locally m/x), bn druxy q bleed thin vugs, silvery sulphide(tr)

gn perv sil-serp(m) altered Um?

float wed pgn & gn serp(w/m), semi-perv & dss mag(w)
float wed pgn & gn slst/fg gwacke?

sorse siliceous angular

no o/c

float cg q-sst

lam grey &lht bn slst

mg/cg q-vst, perv matrix sil(w/m), gn serp fleckis(w), mag-vnd(l/r)

mg/cg q-sst, sil(m), ?pgn sil-serp(w)

granule-q-sandstone, matrix perv sil(m), bk dss mag?(w)

orm mg q-sst, perv sil(m)

orm/lft bn slst & pkish vfg siliceous sst

granule-lithic q-sst, crinoid trace fossils

"cg lithic q-sst, bn slst & fg arkose sst lithics, gn fleckis-serp?

mg/cg q-sst, local granule-q-sst, mag/lr, dss/perv sil/w, local), sil-serp(w)

lft bn fg sst, bn sil(w), sil-serp(l/r), local hashly exterior

lft bn/gn fg q-sst, pgn sil-serp(w), serp-fleckis(w)

granule q-lithic cg q-sst & mg q-sst, sil(w, locally m), truncated cross bedd. also orm perv sil(m), mag(1%, dss), lft gn serp fleckis(w) float.

70
cg q-sst

70

silicified(w/m) mg q-sst, patches sil-serp(w)

No o/c

float, silicified cg q-sst & tan clayey siliceous sst? local fol(w/m)

indurated gn cherty slst

scree comprising lft gn sil-serp?(w) fg sst, "lft bn sil(m) q-sst and lft bn fol(m) slst/schist

no o/c

scattered siliceous fg q-sst scree

lft bn, fol(m), siliceous rock (fault zone?)

bn siliceous(x) rock with lft bn druxy q vn's(w), bk chromite/mag?(<1%)

pgn siliceous fg q-sst& q-grain-lithic-fg-sst, crinoid trace fossils?

## LEGEND

**QUATERNARY**
- Qha — Alluvial gravels.
- Qlb — Lacustrine clays & sands locally including re-sedimented ironstone. (Henty Surface - related?)
- Qlb? — Inferred distribution (eg facies change or resedimented ironstone using aeromag and RGIC mapping)
- Qbr — Raised beach deposits

**DEVONIAN**
- Dr — Generally Pale grey, fine-grained quartz sandstone with subordinate interbedded greenish-grey siltstone (Florence Quartzite). Abundantly fossiliferous.

**SILURIAN**
- Dau — Greenish grey and bluish grey laminated siltstone and minor interbedded fine-grained quartz sandstone (Australind Creek Siltstone).
- Ds — Pale grey to white generally fine-grained quartz sandstone (Horet Quartzite)
- Sa — Greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone.
- Sc — Greyish/cream fine to medium grained quartz sandstone, lithic quartz-sandstone & minor conglomerate. Crinoid trace fossils locally.
- Scgl — Pebble-cobble conglomerate with quartz sandstone, grey siliceous and minor quartz vein clasts, commonly moderately lithified.
- Scgf — Quartzo-feldspathic (10 to 20%) sandstone, medium grained, locally lithic bearing (stippled).
- Su — Calcareous thin bedded siltstone (Silurian?)
- Du — Undifferentiated sediments.

**ORDOVICIAN**
- Og — Limestone (correlate of Gordon Limestone).
- Ocr — Pebble conglomerate, minor lithic-quartz sandstone.
- Os — Cream to light brown siliceous sandstone and siltstone.

**CAMBRIAN (Crimson Creek Formation)**
- €lsi — Siltstone with minor chert, shale and greywacke interbeds.
- €lfg — Fine grained greywacke/hornfels with minor siltstone.
- €lmg — Medium grained greywacke/hornfels with minor siltstone.
- €lcg — Coarse grained greywacke/hornfels.
- €lfg — Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz.
- €lcgl — Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.
- €lu — Undifferentiated Cambrian sediments, mostly greywacke with minor lithic-wacke and conglomerate.

**MAFIC ROCKS (Mt.Oliver Intl Complex)**
- €ser — Undifferentiated serpentinised gabbro and/or basalt.
- €bs — Undifferentiated basalt.
- €bsb — Massive to pillowed, aphytic basalt flows with interbedded breccia flows.
- €bsp — Pillowed aphytic basalt flows with interbedded breccia flows.
- €bgu — Undifferentiated gabbro.
- €bsgf — Fine grained gabbro.
- €bsgm — Medium grained gabbro.
- €bsgc — Coarse grained gabbro.
- €bb — Porphyritic (pseudomorphed clinoenstatite and/or orthopyroxene, chromite) basalt, commonly with interbedded pillow and breccia flows.

**M. MASSIVE ROCKS (Mt.Oliver Intl Complex?)**
- €ucm — Undifferentiated Ultramafic (+/- mafic) and massive serpentinite.
- €mgb — Mafic gabbro, equigranular medium to coarse grained.
- €mgp — Mafic gabbro, spinifex textured.
- €md — Highly feldspathic, medium/coarse grained gabbro.
- €ud — Serpentinized equigranular ultramafic/dunite?
- €ucm — Pseudo-conglomeratic textured ultramafic.
- €pcb — Spinifex textured ultramafic dunite?

**DEVONIAN (Cheek Formation)**
- Dsi — Shale (black).
- Dsd — Siltstone and laminated siltstone.
- Dsss — Sandstone.
- Dssq — Quartz sandstone.
- Dsu — Undifferentiated sediments.

**DEVONIAN GRANITES**
- Dgf — White granite/leucogranite.
- Dgm — Red granite.
- Dgpf — Red granite - porphyritic.
- Dgq — Quartz-rich granitoid (greisen?).
- Dma — Alpite (leucogranite).

**LITHOLOGY/FEATURES**
- Geological boundary - accurate
- Geological boundary - approximate
- Geological boundary - inferred
- Outcrop.
- Subcrop/float.

**STRUCTURE**
- Major Fault Zone - Highly faulted & deformed rocks with zones of cataclasite/fault breccia and tectonic melange, comprising highly altered blocks and large clasts of variable lithologies (including Pcu, Cls, Cmm and Su, major lithologies noted).
- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
- Fault, concealed
- Thrust fault.
- Reverse fault
- Fault showing dip & plunge of lineation on fault plane.
- Vein
- Fold, anticline
- Bedding, facing unknown
- Bedding, facing known
- Cleavage
- Joint
- Joint - vertical
- Foliation
- Minor syncline, showing plunge.
- Minor anticline
- Recumbent anticline

**MINE WORKINGS**
- Mine
- Adit
- Dump
- Open cut or quarry
- Trench

5 cm

SCALE : 1:2000

0 25 50 100 m

01_4621

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Allegiance Mining NL ; Newnham Exploration and Mining
EL28/1988
Newnham, L.A.

**Allegiance Mining N.L.**

861184

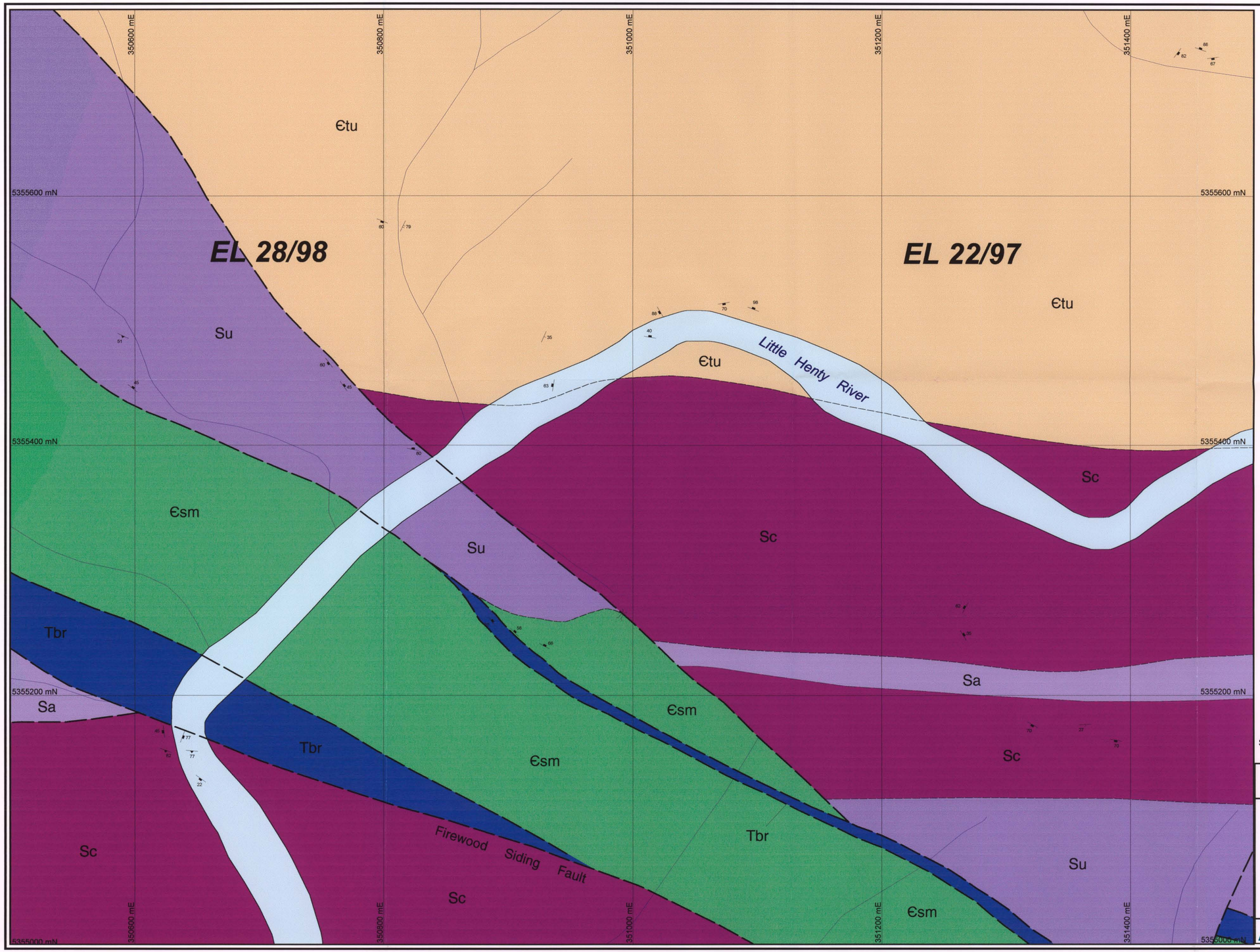
# BURBANK

# OUTCROP/FACTUAL GEOLOGY

COMPILED : Rob Reid
DATE : 11/07/01
DRAWN : G.M.Bennett
REVISIONS :
FILE : LH Outcrop Geology 2000

**Newnham Exploration and Mining Services**

3(a)




## LEGEND

**QUATERNARY**
- Qha — Alluvial gravels.
- Qlh — Lacustrine clays & sands locally including re-sedimented ironstone. (Henty Surface - related?)
- Inferred distribution (eg facies change or resedimented ironstone using aeromag and RGC mapping)
- Qhr — Raised beach deposits

**DEVONIAN**
- Df — Generally Pale grey, fine-grained quartz sandstone with subordinate interbedded greenish grey siltstone (Florence Quarzite). Abundantly fossiliferous.
- Dss — Greenish grey and bluish grey laminated siltstone and minor interbedded fine-grained quartz sandstone (Austral Creek Siltstone).
- Dq — Pale grey to white generally fine-grained quartz sandstone (Fawl Quarzite).

**SILURIAN**
- Sy — Greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone.
- Sm — Greyish/cream fine to medium grained quartz sandstone, lithic quartz-sandstone & minor conglomerate. Crinoid trace fossils locally.
- Sms — Pebble-cobble conglomerate with quartz sandstone, grey siliceous and minor quartz vein clasts, commonly moderately lithified.
- Sqf — Quartzo-feldspathic (10 to 20%) sandstone, medium grained, locally lithic bearing (oligolist).
- Sl — Calcareous thin bedded siltstone (Silurian?)
- Su — Undifferentiated sediments.

**ORDOVICIAN**
- Oq — Limestone (correlate of Gordon Limestone).
- Oc — Pebble conglomerate, minor lithic-quartz sandstone.
- Os — Cream to light brown siliceous sandstone and siltstone.

**CAMBRIAN (Crimson Creek Formation)**
- Cbsl — Siltstone with minor chert, shale and greywacke interbeds.
- Cbfg — Fine grained greywacke/hornfels with minor siltstone.
- Cbmg — Medium grained greywacke/hornfels with minor siltstone.
- Cbcg — Coarse grained greywacke/hornfels.
- Cbg — Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz.
- Cbc — Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.
- Cbs — Undifferentiated Cambrian sediments, mostly greywacke with minor lithic-wacke and conglomerate.

**MAFIC ROCKS (McGhee Hill Complex)**
- Cbsp — Undifferentiated serpentinised gabbro and/or basalt.
- Cbv — Undifferentiated basalt.
- Cbpb — Massive to pillowed, aphyric basalt flows with interbedded breccia flows.
- Cbpg — Pillowed aphyric basalt flows with interbedded breccia flows.
- Cbgu — Undifferentiated gabbro.
- Cbgf — Fine grained gabbro.
- Cbgm — Medium grained gabbro.
- Cbgc — Coarse grained gabbro.
- Cbh — Porphyritic (pseudomorphed clinoenstatite and/or orthopyroxene, chromite) basalt, commonly with interbedded pillow and breccia flows.

**ULTRAMAFIC ROCKS (McGhee Hill Complex?)**
- Cbum — Undifferentiated Ultramafic (+/- mafic) and massive serpentinite.
- Cbmg — Mafic gabbro, equigranular medium to coarse grained.
- Cbmp — Mafic gabbro, spinifex textured.
- Cbmf — Highly feldspathic, medium/coarse grained gabbro.
- Cbsf — Serpentinized equigranular ultramafic/dunite?
- Cbpc — Pseudo-conglomeratic textured ultramafic.
- Cbsx — Spinifex textured ultramafic dunite?

**PRECAMBRIAN (Crowie Formation)**
- Dbs — Shale (black).
- Dbsl — Siltstone and laminated siltstone.
- Dbss — Sandstone.
- Dbsq — Quartz sandstone.
- Dbu — Undifferentiated sediments.

**PRECAMBRIAN BASEMENT**
- Dgf — White granite/leucogranite.
- Dgpc — Red granite.
- Dgp — Red granite - porphyritic.
- Dgq — Quartz-rich granitoid (gneiss?).
- Dma — Aplite (leucogranite).

**LITHOLOGY/FEATURES**
- Geological boundary - accurate
- Geological boundary - approximate
- Geological boundary - inferred
- Outcrop.
- Subcrop/float.

**STRUCTURE**
- Major Fault Zone - Highly faulted & deformed rocks with zones of cataclasite/fault breccia and tectonic melange, comprising highly altered blocks and large clasts of variable lithologies (including Pss, Cls, Csm and Su, major lithologies noted).
- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
- Fault, concealed
- Thrust fault
- Reverse fault
- Fault showing dip & plunge of lineation on fault plane.
- Vein
- Fold, anticline
- Bedding, fasing unknown
- Bedding, fasing known
- Cleavage
- Joint
- Joint - vertical
- Foliation
- Minor syncline, showing plunge.
- Minor anticline
- Recumbent anticline

**MINE WORKINGS**
- Mine
- Adit
- Dump
- Open cut or quarry
- Trench

5 cm

SCALE : 1:2000

0 25 50 100 m

01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mining Services, Newnham, L.A.
EL28/1988

**Allegiance Mining N.L.**

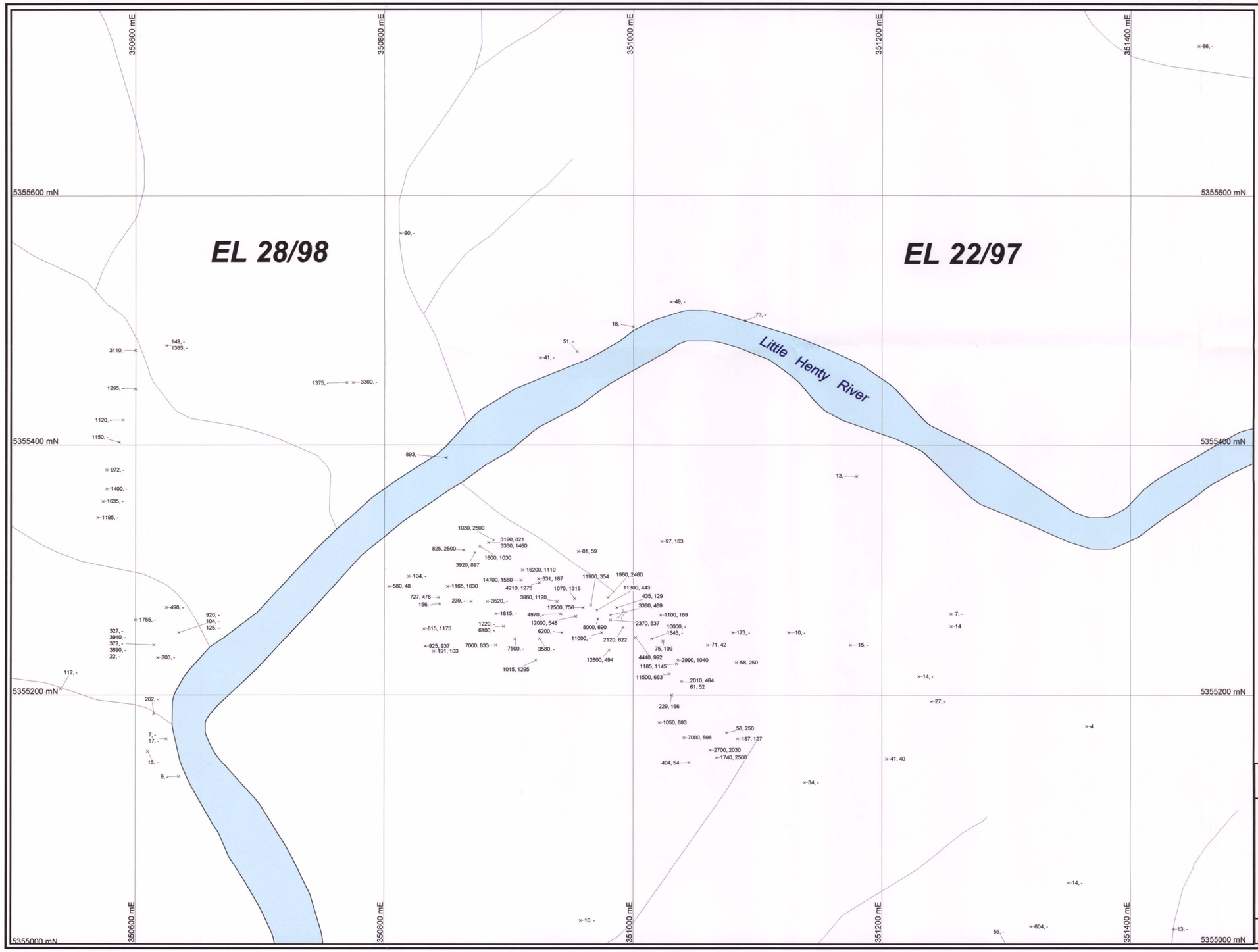
861185

# BURBANK GEOLOGICAL INTERPRETATION

| | |
|---|---|
| COMPILED : | Rob Reid |
| DATE : | 11/07/01 |
| DRAWN : | G.M.Bennett |
| REVISIONS : | |
| FILE : | BB Interp Geology 2000 |

Newnham Exploration and Mining Services

3(b)




01_4621

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EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL28/1988

***KEY***

71, 42 — Ni, Cr assay results (in ppm)

SCALE : 1:2000 0 25 50 100 m

**Allegiance Mining N.L.**

861186

**BURBANK**

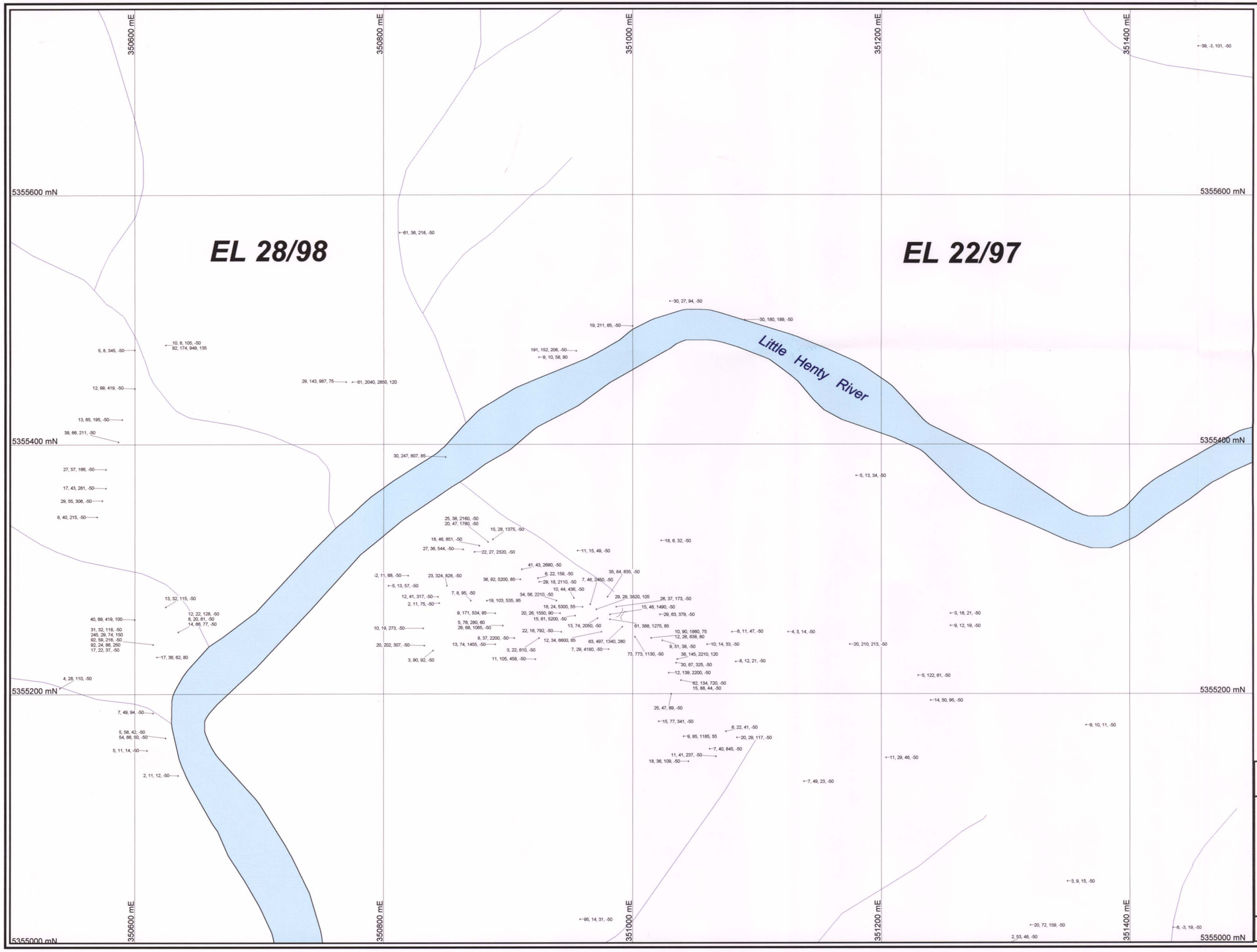
**ROCK CHIP GEOCHEMISTRY**

**Ni, Cr (ppm)**

COMPILED : Rob Reid
DATE : 11/07/01
DRAWN : G.M.Bennett
REVISIONS :
FILE : LH RG NiCr 2000

**Newnham Exploration and Mining Services**

3(c)




## KEY

+ 14,50,95,-50 — Cu, Pb, Zn, As assay results (in ppm)

SCALE : 1:2000 — 0 25 50 100 m

**Allegiance Mining N.L.**

861187

# BURBANK

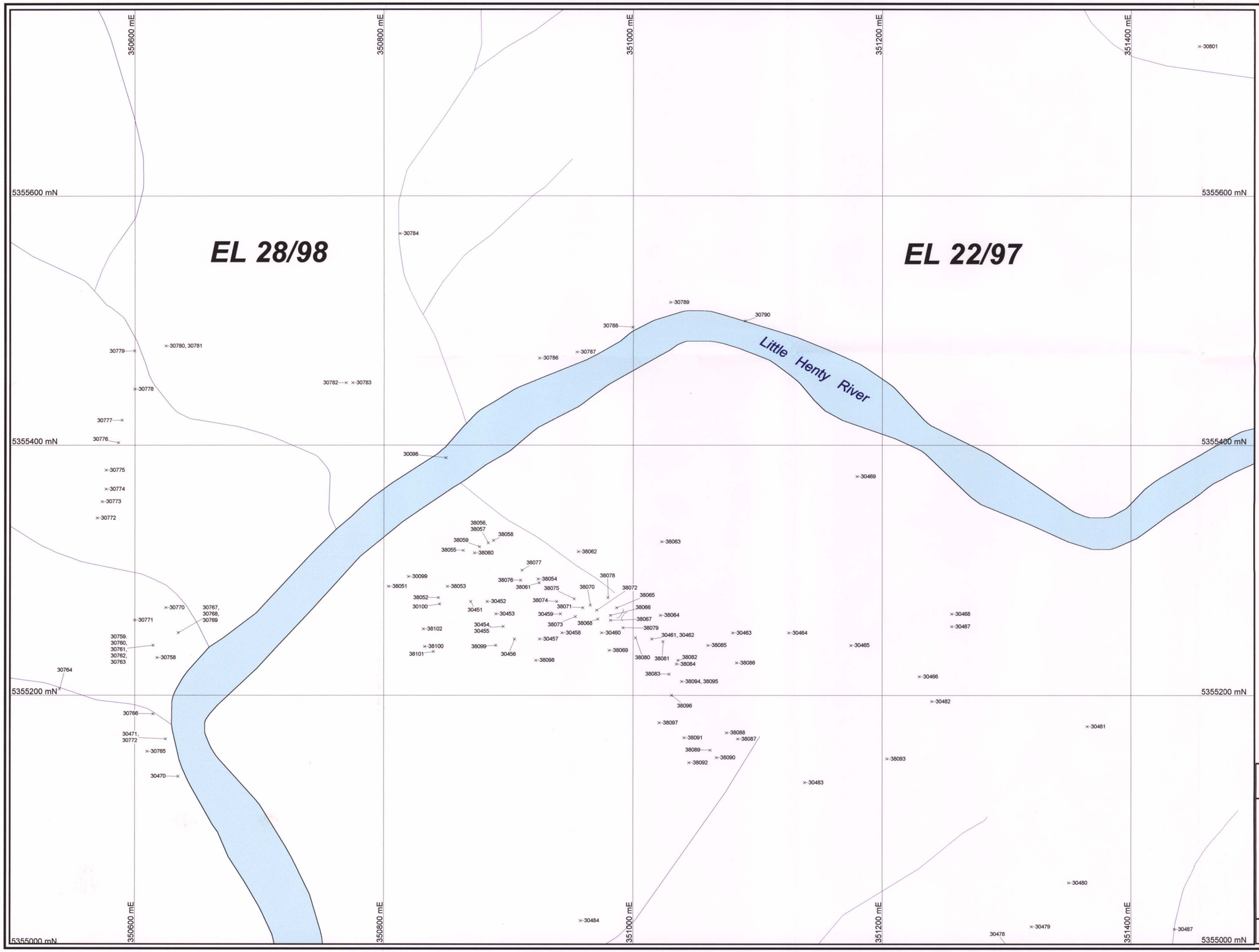
## ROCK CHIP GEOCHEMISTRY

## Cu, Pb, Zn, As (ppm)

COMPILED : Rob Reid
DATE : 11/07/01
DRAWN : G.M.Bennett
REVISIONS :
FILE : LH RG CuPbZnAs 2000

**Newnham Exploration and Mining Services**

3/03




# 01_4621

Annual Report for Period Ending October 2001 - EL28/1988 - Zeehan Project
Allegiance Mining NL*; Newnham Exploration and Mini Newnham, L.A.
EL28/1988

## KEY

30790 Rock Chip Sample Location

SCALE : 1:2000

0 25 50 100 m

**Allegiance Mining N.L.**

861188

## BURBANK
## ROCK CHIP
## SAMPLE LOCATIONS

COMPILED : Rob Reid
DATE : 11/07/01
DRAWN : G.M.Bennett
REVISIONS :
FILE : LH RG Sample Locs 2000

**Newnham Exploration and Mining Services**

3(e)