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NEWNHAM EXPLORATION & MINING SERVICES

EL 22/97 - TRIAL HARBOUR AREA

ANNUAL REPORT

TO AUGUST 2000

Prepared For:

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07 August 2000

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1. SUMMARY

Exploration on EL 22/97 is undertaken in conjunction with exploration on the contiguous EL 28/88.

The target is nickel sulfide deposits of the Avebury type.

Mapping and lithogeochemical sampling programs completed during the year highlighted two areas of on-going interest:

(a) An area of ultramafic rocks in the southern half of the northern portion of EL 22/97 which were nickel anomalous. This area lies approximately 1 kilometre due north of Avebury.

(b) An area of ultramafic rocks straddling the Little Henty River to the south-east of Trial Harbour which were strongly anomalous in nickel.

Further work is planned in both these areas in the coming summer field season.

2. WORK COMPLETED

The following work was undertaken during the 1999-2000 reporting period:

2.1 Northern Portion:

The northern portion of EL 22/97 was mapped in detail, and rock samples collected during this program were extensively assayed, but with emphasis placed on nickel.

Core from previous drilling programs was relogged, and selected sections of core were resampled and assayed.

Results of this work are presented in Appendices 1 and 2, and on the attached figures 1, 2, 5 (a,b,c,d).

2.2 Western Portion:

The western portion of EL 22/97 between Avebury and Trial Harbour was partially geologically mapped and lithogeochemically sampled. Work was focused on the Trial Harbour ultramafic body and the adjacent hornfelsed sediments.

Results of this work are presented in Appendix 3, and on the attached figures 3, 4, 6 (a,b,c,d).

2.3 Results:

The following principal outcomes resulted from this work:

(a) The large aeromagnetic anomalies in the northern section of the northern licence portion are probably sediments subjected to major iron metasomatism and of limited continuing exploration interest.

(b) A sequence of ultramafics in the southern section of the northern licence portion were nickel anomalous.

(c) Samples from the ultramafic straddling the Little Henty River south-east of Trial Harbour were strongly anomalous (0.5-1% Ni). This body was somewhat larger than previously mapped and lies across the boundary between EL 28/88 and EL 22/97.

3. WORK PLANNED - 2000-2001

The following work has been scheduled for 2000-2001:

(i) additional mapping and sampling of the Little Henty ultramafic

(ii) establishment of small grid over this area and completion of an IP or EM survey

(iii) drilling of several short helicopter assisted cored holes to test anomalous areas

(iv) mapping and detailed sampling of the area between Avebury and Daverns Workings; ie, north of Avebury towards Trial Harbour road

This work will not commence before late Spring-early Summer and is estimated to cost approximately $120,000.

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Report on Geological Mapping and Rock Chip Sampling of the Tenth Legion Area, EL22/97 & EL2/96 Allegiance Mining NL"; Newnham Exploration and Mini
Reid, R. EL2/1996; EL22/1997

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APPENDIX 1

GEOLOGICAL MAPPING AND LITHOGEOCHEMICAL SAMPLING

TENTH LEGION AREA

Report on Geological Mapping and Rock Chip Sampling of the Tenth Legion Area, EL22/97 & EL2/96

Allegiance Mining NL.

By Robert Reid, March 2000

(Newnham Exploration and Mining Services)

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Figures

Plates

Summary

Strong nickel and zinc mineralisation as well as magnetic highs were found to correspond with the principal structural intersection points located near the Davern's, Tenth Legion and Kynance Mines.

The highest level of Ni from rock chip samples in the Tenth Legion area was 2870ppm (Anomaly 1). This peak anomaly was returned from a strongly magnetic gabbro bearing 1% sulphide (pyrrhotite/pyrite?) located with Ni-anomalous (2290ppm) massive magnetite. The anomaly was on a significant N-S aligned fault between gabbro and Oonah Formation sediments in the south west of the Tenth Legion area. The fault zone comprises a wide zone of serpentinised gabbros and magnetite alteration and is interpreted to extend south through the Avebury Prospect. A further two Ni anomalous zones were identified (Figure 1).

Consistent anomalous Zn samples (up to 4.1%) returned from the Davern's area are highly encouraging. Little work has been undertaken in this area by past explorers (2 drill holes) and further work here is likely to define at least a small Zn resource, possibly with Ni credits.

Concentrations of Ni in the Tenth Legion area appear to be enhanced by granite alteration and/or structural processes. No evidence of primary nickel sulphide accumulation related to ultramafic rocks is evident. Given these observations, the Ni potential of the Tenth Legion area rates lower than that at Avebury or Trial Harbour. However, the possibility of an extension of the Avebury ultramafic horizon into the far south east corner of the Tenth Legion area cannot be discounted, but has not been assessed during this project.

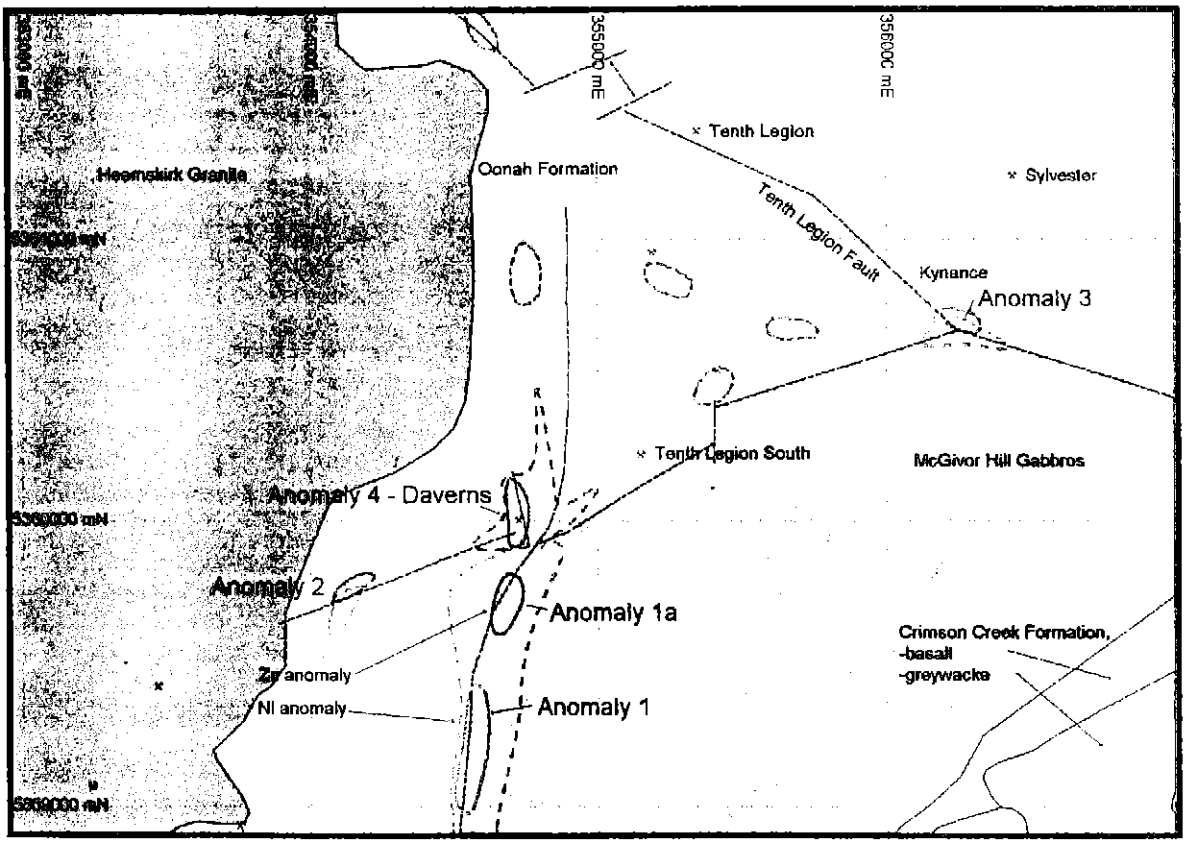

Figure 1: Principal nickel and zinc anomaly's, Tenth Legion Area.

Introduction

This report focuses upon the nickel potential of the Tenth Legion area (EL22/97 & EL2/96), located west of Zeehan, which is one of several Exploration Licences currently explored by Allegiance Mining in that area. Significant nickel intersections at the Avebury and Cuni Prospects attest to the metal potential of the area.

The area was mapped at 1:5000 scale during approximately 17 days of field-work. Rock chip sampling (298 samples) accompanied this mapping. Allegiance believed the nickel mineralisation at the Avebury Prospect is partly tied to magnetite mineralisation. Therefore, areas in the vicinity of magnetic highs were foci during the mapping program. Obvious magnetic highs were the main targets, but numerous subtle highs, covering the gabbros in particular, were investigated. Existing drill core, located at the Mineral Resources Tasmania Core shed in Mornington was re-logged and sampled by Mick McKeown to compliment this mapping project. Geological fact and interpretation maps (Plates 1 and 2), as well as rock chip geochemistry plots (Plates 3 to 7) are appended. Contractor, Gillian Bennet, completed all map drafting.

Aeromagnetics, flown over the area during 1998, and the concurrent digital terrain survey were used to assist map compilation and interpretation, as well as field targeting. Images used included total magnetic intensity, 1st vertical derivative, 1st vertical derivative with linear stretch and a digital terrain model. All were compiled by a geophysical contractor, Nigel Hungerford, and are presented within the 1998 Allegiance Annual Report for EL22/97. Mineral Resources Tasmania digital geological map data was incorporated into peripheral areas of the Geological Interpretation Map (Plate 1). Similarly, alteration zones mapped by RGC (Newnham, 1999) are used as a guide where they could be reasonably verified and also in the unmapped NE portion of the area mapped, where some silica-pyrite veins and quartz-tourmaline veins are similarly referred. The RGC alteration boundaries are partly used since their geologist had the benefit of open grid lines. However, the magnetite alteration distribution is modified based on Allegiance's aeromagnetics data.

Geology

The geology of the northern and western portions of the Tenth Legion area (Plate 1) is dominated by the upper Palaezoic-aged Oonah Formation, which mainly comprises laminated siltstone with interbeds of fine grained sandstone. Quartz-sandstone, quartzite and black shale are less common lithologies. The Oonah Formation is disrupted by the major WNW aligned Tenth Legion Fault, and a small thrust fault emplaced outlier in the south east of the Tenth Legion area. A plot of poles to bedding does not readily define a dominant fold direction, however the calculated fold plunge of 56°to 275° is similar to that at Avebury.

Extensive Eocambrian-Cambrian-age gabbro (McGivor Hill Gabbros) outcrops over much of the southern-central portion of the Tenth Legion area. The gabbros are typically medium grained and equigranular, although varieties range from fine to coarse grained (3-5mm). They are correlated with gabbro intruding the Serpentine Hill Ultramafic Complex (located ~14km ENE), and region-wide they form a geochemically distinct group unrelated to an older gabbro phase associated with tholeiitic volcanism of the Crimson Creek Formation (Brown, 1989).

A largely obscured ENE aligned fault forms the contact between the McGivor Hill Gabbros and Oonah Formation sediments in the central part of the Tenth Legion area. Magnetics and geochemical interpretation suggests this fault may continue westward into the Oonah Formation. While in the south west of the area, the gabbro/Oonah contact is formed by an ill-defined N-S aligned fault, which also extends northward into the Oonah Formation.

Massive aphyric basalt outcrops in the south east of the Tenth Legion area, adjacent to the McGivor Hill Gabbros. Mapping by Brown et al.(1994) indicates that areas of pillow lava and interbedded breccia flow are also present. The basalt may belong to the Eo-Cambrian to Cambrian aged Crimson Creek Formation; sediments of which outcrop over a small adjacent area in the far south east. In general, the Crimson Creek Formation consists of a turbiditic sequence of volcaniclastic lithic wacke and laminated siltstone and mudstone interbedded with tholeiitic basalt (Brown, 1986).

The Heemskirk Granite, which outcrops along the western margin of the Tenth Legion area, is a meta- to per-aluminous body comprising layered biotite granite ('Red' granite) intruded by a sill-like more alkalic biotite-muscovite granite ('White' granite). Collins et al.(1989) considers that district-wide tin mineralisation is related to the latter. Hybrid granite dykes comprising leucogranite, aplite and a quartz-rich granitiod are evident proximal to the granite and intruding the Oonah Formation sediments in the south west. Oonah Formation sediments within the contact aereole of the granite are commonly hornfels. Also common are granite-related calc-silicate alteration, silicification, and massive and veined magnetite +/-sphalerite bodies.

Extensive Quaternary gravels cover flat lying areas at Tenth Legion. Most of these deposits are recent alluvial gravels, but stranded terraces comprising lacustrine/fluvial clays with channels of granule-cobble sandstone and quartz-vein alluvium, reworked partly ironstone-derived sands and re-cemented pebbly ironstone are also present. These possibly reflect an older period of elevated sea level (related to the Henty Surface?).

Alteration and Mineralisation

A variety of mostly granite-related alteration and mineralisation styles are evident in the Tenth Legion area. Hornfels of Oonah formation sediments are particularly common near the granite contacts. Cream coloured pervasive calc-silicate alteration is widespread near the granite contact in the south west of the area mapped and also on a macro-scale at granite dyke margins (eg. 354085mE, 5359425mN). Pale green pervasive silica-serpentinite alteration, which is superficially similar to the calc-silicate alteration, is also evident and may, in part, have formed via alteration of limestone.

Magnetite (in replacement vein and massive form) and ironstone are evident both proximal and distal to the granite, particularly along or in the vicinity of identified faults. The magnetite may also form skarn-style replacement along calcareous beds. Ironstone may outcrop intermittently for up to 800m (eg. the Tenth Legion Prospect, located approximately 1km east of the outcropping Heemskirk Granite in the northern portion of the area mapped). The ironstone is mainly comprised of fine grained massive magnetite with lesser haematite and goethite, depending largely upon the degree of weathering. Locally coarsely crystalline magnetite and pale green silicate vug-fill is evident. Massive pyrite veins infrequently overprint magnetite and weathered box-work texture after pyrite is uncommon. Coarse grained veins of muscovite are evident as thin (<2cm) veins within the ironstone at several localities, including the Tenth Legion Prospect (355200E, 5361275N) and at Daverns.

Disseminated grains of magnetite also accompany pervasive silicification. This alteration is sometimes evident within permiable sandstones and is commonly located distal to the granite (eg. at the Kynance and Silver Stream mines). Silica-pyrite replacement veins are also evident at these mines.

Tourmaline veining is often accompanied by grey translucent silica and is sparsely distributed through the sediments and mafic rocks in Tenth Legion area. Tourmaline abundance is very low compared to within the granite west of Mt Heemskirk.

Native copper was identified at three disparate locations. One occurrence, in association with grey silica (quartz) veining, was hosted by laminated siltstone in the Tenth Legion Prospect area (354795E, 5361555N). Native copper was also located as patches of fine disseminated grains within basalt of the Crimson Creek Formation in the south east of the area mapped (355915mE, 5359345N), and within a serpentinised medium grained gabbro near the Trial Road (weak magnetic high) (355420mE, 5359575mN).

Discussion

Strong mineralisation and magnetic highs were found to correspond with structural intersections near the Davern's, Tenth Legion and Kynance Mines.

Two distinct mineralisation/alteration styles, differentiated by proximity to the granite, are evident in the Tenth Legion area. The ironstones, comprising magnetite-serpentinite? (+/-silica) fault bounded veins and skarn- style mineralisation, are located relatively close to the Heemskirk Granite (eg. Davern's, Tenth Legion). Silica-serpentinite pervasive-style alteration commonly accompanies magnetite alteration. More distal to the granite is quartz-sulphide (Pb-Zn-Ag +/-Cu) vein-lode style mineralisation (eg. Kynance), which is commonly accompanied by peripheral zones of pervasive silicification with disseminated pyrite. The relationships are not clear but alteration zonation appears to reflect variation of temperature and fluid composition with distance from a granite source. Oxidising conditions during magnetite precipitation with a change to reducing conditions for distal pyrite deposition may reflect the preferential consumption of oxygen prior to sulphur from the mineralising fluids as they flowed away from the granite source. Magnetite formation may, in part, reflect mixing of iron-rich granite-derived fluid with oxidised peripheral groundwaters.

No note of nickel is made within western Tasmanian granite-related deposits. However, granite-derived fluids and associated groundwater circulation may be capable of scavenging significant metal from the enclosing host rocks if conditions are favourable.

Geochemistry

Sampling Technique

A total of 298 rock chip samples were collected and analysed for Cu, Ni, Pb, Zn, As and Sb. However, the latter two elements (Ag, Sb) were not analysed in the initial batch of 70 samples. Rock chip samples were taken as both composite and grab samples. The composite samples comprised at least 4 chips and more typically up to 15 chips from outcrop or float in the general sample site vicinity. The rationale here being to obtain an average or more truly indicative analysis for the rock sampled. Grab samples of particularly strong mineralisation or specific alteration and mineralisation occurrences allowed characterisation of metal content within a given rock.

At the Tenth Legion and Tenth Legion South Prospects composite sampling was undertaken at ~20m sample intervals along the track side. Subcrop and float boulders were predominantly collected, as well as outcrop chips where available. It was intended to test for lateral element zonation along the magnetite bodies strike in both cases.

Lithogeochemistry

Histograms for nickel were assessed to determine background levels within various lithologies and to gauge the potential for leaching of that metal by granite-related fluids (Figure 2). Most mafic rocks contained up to at least 50ppm Ni, whereas many of the Oonah Formation sediments and ironstone samples return 20ppm Ni or less. Considering that many of the mafic rocks sampled were not strongly altered, it appears that little Ni is available for scavenging via granite-related fluids from the McGivor Hill Gabbros. Alternatively, a large volume of gabbro would be required to source sufficient Ni to form a remobilised orebody.

Geochemistry of Alteration and Mineralisation

Anomalous nickel values of greater than 500ppm all occur either in association with magnetite and/or serpentinite, along faults or in close proximity to the granite. At outcrop scale, comparing samples 16882 and 16883 reveals that slightly elevated Ni (108 vs 81ppm) levels are present within a grab sample of weakly serpentinised, gabbro with smeared pyrite on foliation planes (16883) with respect to

the composite sample from relatively unaltered gabbro. Whereas, a histogram plot of Ni concentrations in all mafic rocks with respect to degree of serpentinisation (figure 3) reveals that least altered mafics have low Ni content, whereas elevated Ni (>50ppm) is evident in serpentinised rocks. However, while the most anomalous Ni is associated with the strongest serpentinisation, some strongly serpentinised rocks are nickel poor.

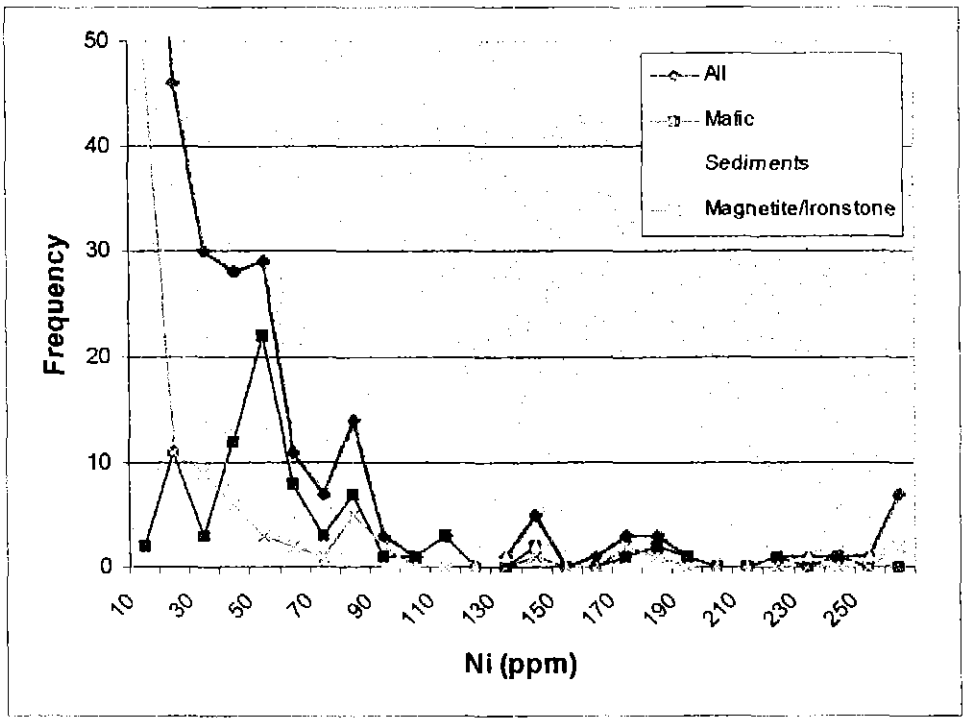

Figure 2: Nickel histograms for various lithologies, Tenth Legion area.

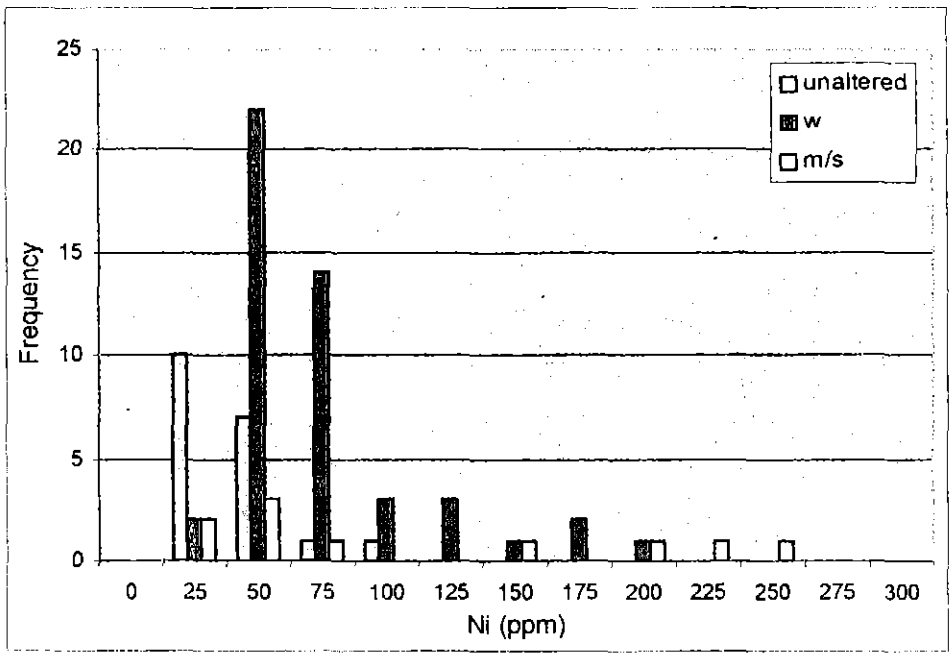

Figure 3: Nickel versus degree of serpentinisation within mafic rocks, Tenth Legion area.

Anomalous nickel was located in ironstone at the Trial Road magnetite body (Anomaly 1; 2290ppm; 354585mE, 5359220mN), at Anomaly 1a (180ppm; 354697mE, 5359710mN) and west of Daverns (162ppm; 354360mE, 5359860mN). These examples are discussed further below. The Ni potential of the ironstones and massive magnetite, from rock chip surface samples, appears to be low at the Tenth Legion Prospect, where nickel ranged from mostly below detection to 36ppm. Weak Ni was obtained from Daverns, returning a peak value of 85ppm. Since Ni depletion via weathering and leaching is possible, a comparison with drill core Ni assays should be conducted to more accurately assess the potential of the magnetite lodes.

Zinc rock geochemistry returned highly encouraging anomalous values to 4.1% from Daverns Prospect. Areas of best Zn potential as indicated by rock chip sampling are shown in figure 1. Zinc responses from most ironstones overlying known zinc prospects (eg. Tenth Legion, Tenth Legion South and Kynance) were mostly less than 1500ppm. Surface leaching of Zn from ironstones may have occurred.

A few observations pertaining to notable samples and concentrations of other elements:

- Peak Cu analyses were 1145 and 1160ppm from weathered ironstone (354697mE, 5359710mN) and 10cm massive pyrite band in massive magnetite (355465mE, 5360370mN), respectively.
- Peak Pb analysis was 1900ppm from massive magnetite (355494mE, 5360330mN) at Tenth Legion South. Elevated Pb is mostly anomalous in areas close to faults and distal to the Heemskirk Granite.
- No correlation exists between Ni and As or Cu, Pb and Zn or Cu and Zn. The lack of correlation between these metals suggests concentration may depends partly upon availability of metal-rich source rocks for scavenging of metal by granitic fluids. Tin (not analysed) and possibly Zn may be exceptions that are directly or partly granite-derived.
- Anomalous Cu, Pb and Zn distribution does not correspond well with Ni, suggesting that the Ni mineralisation and concentration processes or sources differ. The key criteria for locallising Ni appears to be faulted mafic contacts in the Tenth Legion Area. Proximity to granite or granite-derived alteration is also somewhat important.
- As distribution corresponds to fault zones and massive magnetite occurrences.
- Rock samples from 355240mE 5359976mN, were all exhotic and comprised mineralised rock (1.4% Pb and 0.66% Zn) probably from the Comstock Mine, as well as stichtite-bearing serpentinite (1540ppm Ni) from Dundas or Serpentine Hill.

Exploration Potential

Three principal nickel and one zinc anomalous zone were located from rock chip sampling (Figure 1).

Anomaly 1 - Trial Road Magnetite (354570mE, 5359235mN)
The highest nickel in rock chip from the Tenth Legion area was 2870ppm (17597). This peak anomaly was returned from a strongly magnetic gabbro bearing 1% sulphide (pyrrhotite/pyrite?) located near massive magnetite at a N-S aligned fault between gabbro and Oonah Formation sediments, in the south west of the Tenth Legion area. Analysis of sulphidic [tr to 0.5%] massive magnetite and weathered ironstone with fine grained sandstone selvages from Anomaly 1 returned 2290ppm (17596) and 456ppm (17595) Ni respectively.

Note that mapping at Avebury and a cursory traverse between Avebury and the Anomaly 1 vicinity reveals that the N-S aligned fault which hosts Anomaly 1 is likely to extend south through the Avebury Prospect.

Anomaly 1a (354700mE, 5359700mN) is a magnetite body on the N-S aligned fault, north of Anomaly1. Ni reaches 305ppm in serpentinised gabbro adjacent to the magnetite lode bearing up to 180ppm Ni from weathered ironstone. Note that the peak of this magnetic high is approximately banana shaped, which is an orientation consistent with a plunging magnetite shoot located at the cross-section of two perpendicular major structures.

Anomaly 2 (354120mE, 5359700mN) returned two Ni anomalous samples; a dark grey to green strongly silica-serpentinite(/serp?, s) altered fine/medium grained sediment, yielding 1885ppm Ni (17248); and a dark green magnetite altered sediment with silica-serpentinite overprinting(w/m) magnetite(w) alteration (trace pyrite), yielding 648ppn Ni (17249). Given the strong alteration, including serpentinisation, it is remotely possibly that these rocks are altered ultramafic feeders, but more likely, the Ni anomalism could be remobilised from underlying ultramafics/mafics, considering that the Precambrian Oonah formation is thrust over Cambrian rocks in the Tenth Legion area. Note also that Zn was strongly anomalous at 3120ppm and Cu 179ppm in sample 17250.

Anomaly 3 (356260mE, 5360685mN)
A grey pervasively silica(w)-magnetite(w/m) altered shale? bearing 229ppm Ni was located at the faulted contact between gabbro and Oonah Formation sediments (Tenth Legion Fault). Here Ni is clearly a hydrothermal addition related to the silica-magnetite alteration. Nearby, a weakly serpentinised gabbro containing quartz veinlets also contains weakly anomalous Ni (166ppm). Note that this anomaly is located in the vicinity of the convergence of two significant faults and a sample from a nearby adit returned 2200ppm Zn from silicified-magnetite altered shale.

Anomaly 4 - Daverns (354700mE, 5360000mN)
Zinc was highly anomalous in seven samples; ranging from 0.63% to 4.10%. The zinc is host in pervasively silicified, silica-serpentinite altered sediments, bearing bedding-parallel replacement-style vein to massive magnetite alteration with variable pyrite and sphalerite. The rock chip samples form an anomalous zone approximately parallel to a low angle, 170^{O} striking reverse(?) fault, the alignment of which corresponds to a weak magnetic ridge lying perpendicular to a significant magnetic high. The latter forms a second Zn anomalous trend with silica-serpentinite and magnetite altered samples yielding 1625 and 4810ppm Zn, located 100m east of Daverns. Magnetics and rock geochemistry suggest this Zn trend also extends west toward the Zn and Ni anomalous Anomaly 2. Similar to Anomaly 1a, a plunging zinc-rich magnetite shoot at the intersection of the approximately perpendicular faults is possible.

References

Brown, A. V. 1986. Geology of the Dundas-Mt Lindsay-Mt Ramsay area. Bull. Geol. Surv. Tasm. 62.

Brown, A. V., Findlay, R. H., Goscombe, B. D., McCleneghan, M. P., and Seymour, D. B. 1994. Zeehan. Geological Atlas 1:50000 Series. Mineral Resources Tasmania.

Collins, P. L. F., Brown, S. G., Dronseika, E. V., Morland, R. 1989. Mid-Palaeozoic Ore Deposits. In Geology and Mineral Resources of Tasmania (Eds C. F. Burrett and E. L. Martin). *Geol. Soc. Aust. Spec. Publ.* 15: 270-276.

Newnham, L. A. 1999. Geology (Compilation) from 1:25000 MRT Heemskirk and Trial Harbour Geology and RGC Mapping. Unpublished map for Allegiance Mining by Newnham Exploration and Mining Services.

Turner, N. J., 1989. Precambrian. In Geology and Mineral Resources of Tasmania (Eds C. F. Burrett and E. L. Martin). *Geol. Soc. Aust. Spec. Publ.* 15: 5-46.

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Appendices

Sample Catalogue

Tenth Legion Rock Chip Sample Catalogue						
Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
16801	1	355145	5359540	gn mg gabbro, serp(w)	composite	outcrop
16802	2	355145	5359600	gn medium grained gabbro, serp(w), py(1%), Aspy(?, tr), q-vnd(tr)	grab	outcrop
16803	3	355330	5361450	mg hornfels sst, sil-ch-mag vnd(w)	composite	outcrop
16804	6	355245	5361620	grey & tan qtzite, fol(w)	composite	outcrop
16805	6	355245	5361620	grey & tan qtzite, fol(w), tour vnd(w)	composite	outcrop
16806	8	355100	5361615	bn msv ironstone	composite	outcrop
16807	8	355090	5361615	bn msv ironstone	composite	outcrop
16808	9	355080	5361595	bn msv ironstone	composite	outcrop
16809	10	355080	5361575	bn msv ironstone	composite	outcrop
16810	11	355090	5361550	msv magnetite	grab	outcrop
16811	11	355090	5361540	bn msv ironstone	composite	outcrop
16812	15	354770	5361660	bn msv ironstone	composite	float
16813	16	354745	5361580	bn msv ironstone	composite	subcrop
16814	17	354715	5361570	bn msv ironstone	composite	float
16815	18	354690	5361645	bn msv ironstone	composite	subcrop
16816	19	354650	5361670	bn msv ironstone	composite	subcrop
16817	20	354600	5361745	bn msv ironstone	composite	subcrop
16818	22	354515	5361385	grey laminated slst & sst, sil-tour vnd(w)	composite	outcrop
16819	26	354725	5361370	fg/mg sst, tour-sil+/-mag altn (m/s)	composite	outcrop
16820	28	354795	5361555	lht bn laminated slst, py(tr, dss), grey sil-vnd(tr)	grab	outcrop
16821	30	354950	5361520	pgn micaceous slst	composite	outcrop
16822	32	355055	5361455	crm slst/fg sst, sil-py vnd(3%), ser(w)	grab	outcrop
16823	33	355055	5361455	crm/grey weakly micaceous slst, py(tr, dss), sil-vnd(tr)	composite	outcrop
16824	34	355110	5361385	pgn silicified(m/s), pyritic(1%), altered sediment	grab	outcrop
16825	34.1	355240	5361360	bn msv ironstone	composite	subcrop
16826	34.2	355260	5361365	bn msv ironstone	composite	subcrop
16827	34.3	355280	5361365	bn msv ironstone	composite	subcrop
16828	34.4	355345	5361340	bn msv ironstone	composite	subcrop
16829	34.5	355365	5361335	bn msv ironstone	composite	subcrop
16830	34.6	355400	5361325	bn msv ironstone	composite	subcrop
16831	36	355415	5361315	bn msv ironstone	composite	subcrop
16832	36.1	355455	5361290	bn msv ironstone	composite	outcrop
16833	36.2	355490	5361275	bn msv ironstone	composite	subcrop
16834	36.3	355510	5361270	bn msv ironstone	composite	outcrop/subcrop
16835	36.4	355525	5361260	bn msv ironstone	composite	subcrop
16836	36.5	355542	5361255	bn msv ironstone	composite	subcrop
16837	36.6	355560	5361250	bn msv ironstone	composite	subcrop
16838	36.7	355580	5361245	bn msv ironstone	composite	subcrop

Tenth Legion Rock Chip Sample Catalogue						
Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
16839	36.8	355597	5361245	bn msv ironstone	composite	subcrop
16840	36.9	355616	5361240	bn msv ironstone	composite	subcrop
16841	36.91	355635	5361235	bn msv ironstone	composite	subcrop
16842	36.92	355655	5361232	bn msv ironstone	composite	subcrop
16843	36.93	355670	5361234	bn msv ironstone	composite	subcrop
16844	36.94	355685	5361236	bn msv ironstone	composite	subcrop
16845	37	355710	5361254	grey laminated slst & micaceous fg sst	composite	outcrop
16846	37.1	355568	5361245	weathered ironstone, calc-sil altn(w)	grab	outcrop
16847	38	355420	5361150	crm/grey fg q-sst & siliceous slst, mag(tr, dss)	composite	outcrop
16848	39	355425	5361130	lht bn mg q-sst, q-vnd(2%), sil(m), mag(tr, dss)	composite	outcrop
16849	43	355200	5361275	ironstone, trace muscovite flakes	composite	subcrop
16850	44	355200	5361290	msv fg mag(/ironstone)	composite	outcrop
16851	45	355285	5361475	msv magnetite, calc-silicate vug fill(5%)	composite	float
16852	46	355210	5361490	grey foliated(m) sil-py altered muscovite-bearing slst, sil(m), py(<0.5%)	composite	outcrop
16853	48	355260	5361520	crm silicified sst, mag(tr, dss)	composite	outcrop
16854	52	355645	5361260	crm&grey silicified sst	composite	outcrop
16855	53	355620	5361265	silicified sst, mag(tr), drussy q lined vugs	composite	outcrop
16856	57	355740	5361170	weathered ironstone, 1m wide	composite	outcrop
16857	57	355735	5361162	bn clay after slst	composite	outcrop
16858	57	355740	5361140	weathered ironstone	composite	outcrop
16859	58	355700	5361100	ironstone and silicified sst	composite	float
16860	59	355800	5361025	ironstone	composite	subcrop
16861	60	355820	5361040	grey silicified fg sst, sil(vw), mag(vw)	composite	float
16864	63	355898	5361005	grey foliated(m) slst	composite	outcrop
16865	64	355970	5360955	grey & tan slst, mag altn(w), fol(m), py(tr)	composite	subcrop
16866	65	356005	5360935	silica - pyrite(15%) alteration	composite	float
16867	65	356005	5360935	massive pyrite, q-vnd(tr)	composite	outcrop
16868	69	356175	5360905	fg silicified(w/m) sst, milky q-vnd+/-FeO(5%)	composite	float
16869	70	356285	5360875	ironstone, calc-sil(1%)	composite	outcrop
16870	75	355960	5360920	silicified(m/s) sst, py(to 4%, dss)	composite	outcrop
16871	76	356080	5360790	lht bn silicified(w/m) sst, q-vnlts(tr)	composite	outcrop
16872	79	356255	5361105	pgn silicifed(s) sst, py(15%, dss)	grab	outcrop
16873	80	355632	5360662	strong calc-silicate alteration, py(tr), mag(w)	composite	subcrop
16874	81	355672	5360695	weathered ironstone	composite	subcrop
16875	82	355675	5360670	strong calc-silicate alteration, mag(w)	composite	subcrop
16876	83	355691	5360682	crm silicified(w/m) sst?, mag vnd(2%), calc-sil(tr)	composite	outcrop
16877	86	355820	5360755	lht gn silicified(m) laminated slst, calc-sil(w) bands	composite	float
16878	88	355870	5360750	grey mg/cg arenite	composite	outcrop

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Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
16879	90	355970	5360752	dgn sst, sil-mag+/-tour? altn(w)	composite	float
16880	92	356325	5360725	wed kaki & FeOxidised mafic?	grab	float
16881	93	356510	5360625	dgrey slst/sh	composite	outcrop
16882	95	356545	5360605	crm&gn mg gabbro, fol(w)	composite	outcrop
16883	95	356545	5360595	crm&gn mg gabbro, fol(w), serp(w), mag(vw), py(tr)	grab	outcrop
16884	96	356590	5360555	crm&gn mg gabbro, fol(w), serp(w), mag(vw)	composite	outcrop
16885	98	356265	5360730	grey laminated sh/slst, mag(w)	composite	float
16886	98	356275	5360730	grey silicified laminated sh/slst, mag(w)	grab	outcrop
16887	99	356260	5360685	grey sil-mag(w) altered sh?	composite	outcrop
16888	100	356210	5360585	lht gn mg gabbro, serp(w), q-vnd(w), FeO on fracs(tr)	composite	outcrop
16889	101	356095	5360590	gn mg gabbro, serp(w)	composite	outcrop
16890	103	356115	5360760	pgn slst, fol(w)	composite	float
16891	104	355840	5360740	pgn silicified(w) slst	composite	subcrop
16892	105	355850	5360725	pgn sediment, pervasive & bnd sil(s)-mag(15%) altn, py(tr)	composite	outcrop
16893	106	355852	5360615	pgn silicified(w/m) fg sst/slst, q-vnd(<2%), sil-serp(w/m)	composite	float
16894	107	355855	5360590	pgn sil-serp(m) altered sst	grab	float
16895	108	355735	5360540	pgn grags & clay, fg/mg gabbro?	composite	float
16896	109	355704	5360515	gn fg mafic (gabbro?, 15% felsic mins)	grab	float
16897	111	355698	5360625	ironstone float	composite	subcrop
16898	112	355622	5360662	pgn pervasive sil-serp(m/s) altered mafic?, mag(s)	composite	subcrop
16899	113	355530	5360695	crm clay/wed sed?	composite	outcrop
16900	114	355504	5360697	pgn sil(m/s), mag(0.5%) altered sed?, sil-ch? vnd(1%)	grab	float
17201	224	354520	5359325	pgn sil-serp(m/s) altered sst	composite	outcrop
17202	225	354510	5359285	lht bn/pgn fg sst, sil-serp-vnd(20%, m), mag(tr)	composite	subcrop
17203	226	354315	5359245	msv fg mag, py(1-3%, dss&vnd), cpy(?tr), sil(tr)	composite	subcrop
17204	226	354315	5359245	mg/cg quartz(70%)-granitoid	composite	float
17205	227	354290	5359130	mg/cg quartz(70%)-granitoid, mag(w)	composite	float
17206	227	354290	5359130	dgrey weakly hornfels fg sst, mag(w)	composite	float
17207	228	354125	5359130	dgrey weakly hornfels fg sst, mag(w/m, tr-vnd), vfg py(0.5%)	composite	outcrop
17208	229	355175	5359640	mg gabbro, serp(w/m), mag(w)	composite	outcrop
17209	232	355180	5359780	gn fg/mg gabbro, serp(w/m), mag(dss, w/m), sil-serp-vnd & patches(w)	composite	outcrop
17210	233	355790	5359830	gn fg/mg gabbro, serp(w/m), mag(m/s), sil-serp-vnd(tr), gn act/tour?-xtals/vnd	composite	outcrop
17211	234	355230	5359875	mg/cg gabbro, serp(w/m), sil-serp-vnd(tr), mag(w)	composite	outcrop
17212	236	355305	5359870	gn mg/cg gabbro, serp(w)	composite	outcrop
17213	238	355305	5359975	gn mg gabbro, serp(w/m)	composite	outcrop
17214	240	355345	5360050	gabbro (locally vcg), serp(w), fol(w), jointing(m/s)	composite	outcrop
17215	241	355385	5360035	cg gabbro, serp(w), sil-tour?-vnd(tr)	composite	outcrop
17216	244	355610	5359805	mg gabbro, serp(w), tour?-vnd	composite	outcrop

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Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
17217	247	355475	5359635	mg gabbro, serp(w/m), py(tr), tour?-vnd(tr)	composite	outcrop
17218	248	355420	5359575	mg gabbro, irregular serp(m) zones "breccia-like"texture, py(tr), native Cu(tr), sil-serp(w)	composite	outcrop
17219	249	354760	5359310	mg gabbro, serp(w/m), mag(w)	composite	outcrop
17220	250	354750	5359335	mg gabbro, serp(w/m), mag(vw)	composite	outcrop
17221	251	354740	5359350	float, various, bk hornfels sph? py(tr), crm sil-tour vnd(m) hornfels fg sst	composite	float
17222	252	354720	5359375	weathered dgn serpentinite, mag(m)	composite	outcrop
17223	254	354735	5359545	weathered gabbro/serpentinite, serp(s), dss bk flecks(1%, mag?)	composite	outcrop
17224	255	354790	5359555	gn mg gabbro, serp(w/m), layered	composite	outcrop
17225	256	354810	5359600	mg gabbro, crm sil-vnd, FeO stained(2%), serp(w/m), py(tr?)	composite	outcrop
17226	257	354815	5359635	gn mg gabbro, serp(w)	composite	outcrop
17227	258	354840	5359690	mg gabbro, serp(w)	composite	outcrop
17228	259	354860	5359735	mg gabbro, serp(w/m), gn euhedral tour?-xtals	composite	outcrop
17229	260	354885	5359775	mg gabbro, serp(w/m), mag(vw), sil(tr)	composite	outcrop
17230	262	354900	5359550	mg gabbro, serp(w/m)	composite	outcrop
17231	265	354735	5359615	wed gabbro, serp(m), sulphide(tr)	composite	outcrop
17232	266	354775	5359705	gn serpentinised(m/s) gabbro, pyrrh?(0.5%, fol smears), dgn serp/ch?-sil vnd(tr)	composite	outcrop
17233	267	354785	5359735	gn serpentinised(m) gabbro, pyrrh?(0.5%, fol smears, localy 5%), serp bands	grab	outcrop
17234	267	354785	5359735	crm&gn sil-serp(m/s) altered gabbro, serp(?w)	composite	outcrop
17235	268	354790	5359755	mg gabbro, serp(w/m), sil-serp-py(0.5%)-mag/hm(0.5%)-vnd(w)	composite	outcrop
17236	271	354830	5359965	wed lht gn gabbro, serp(w/m), pyrrh?(tr, dss)	composite	outcrop
17237	273	354815	5359975	sil(s)-py(7%) altered fg/mg sst, cpy(tr)	composite	outcrop
17238	276	354770	5360005	grey silicified(m/s) sst, mag(m), aspy? dss, sil-serp(m), gn mica vnd(tr), sph(tr)	composite	outcrop
17239	277	354735	5360027	msv fg mag, dss sph(1%), py(0.5%)	grab	outcrop
17240	278	354735	5360050	bk fg magnetite zone, crm flecks dss sph?(1%, locally 10%), serp(m), py(tr),	composite	outcrop
17241	279	354705	5360010	grey silicified(m/s), sil-serp(m) altered sst & msv mag, py(1%), sph(tr), calc-sil(tr)	composite	outcrop
17242	281	354085	5359360	dgrey hornfels slst, sil-tour-vnd(10%), vuggy quartz & silicified zones, py(tr), axinite?(tr)	composite	outcrop
17243	282	354115	5359325	crm/lht bn fg sst, dgn tour-ch?-py-vnd(1%)	composite	outcrop
17244	286	354085	5359425	pgn sil-serp(w), hornfels, pyritic slst intruded by mg "white" granite dyke	composite	outcrop
17245	290	354095	5359560	lht bn hornfels slst/sst, q-mag-vnd(5%), py(tr)	composite	outcrop
17246	290	354100	5359575	crm fg leucogranite dyke, tour-mag(tr)-vnd(tr)	composite	outcrop
17247	291	354105	5359620	lht bn&dgrey laminated slst/hornfels, sil-vnd(4%), mag(w)	composite	outcrop
17248	292	354111	5359645	dgrey/gn sil-serp/serp?(s) altered sediment	composite	outcrop
17249	293	354115	5359720	dgn mag altered sediment, sil-serp overprint(w/m), mag(w), py(dss, tr)	composite	outcrop
17250	294	354113	5359750	sil-serp(s) altered sediment, mag(m), pyrrh?(6%), cpy?(tr)	composite	outcrop
17251	297	354100	5359780	sil-serp(m/s) altered laminated slst, sil-py/pyrrh(tr)-vnd, mag(w)	composite	outcrop
17252	301	354190	5359920	lht bn & grey weakly hornfels slst/fg sst, mag-vnd(tr)	composite	float
17253	302	354235	5359520	lht bn fg/mg sst, mag-vnd(1%)	composite	float
17254	303	354315	5359920	pgn sil-serp(m) altered slst, py(tr, dss)	composite	subcrop

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Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
17255	304	354345	5359880	msv mag & wed ironstone	composite	float
17256	305	354360	5359860	ironstone	composite	subcrop
17257	307	354445	5360780	pgn sil-serp(m) altered slst/sst	composite	outcrop
17258	308	354540	5359730	wed pgn sil-serp(w?) sediment?	composite	outcrop
17259	310	354697	5359710	wed ironstone	composite	float
17260	311	354795	5360400	wed ironstone	composite	float
17261	314	354750	5360470	ironstone and msv mag	composite	float
17262	332	354750	5360870	wed ironstone	composite	float
17263	329	354855	5360784	laminated slst, patchy sil-serp altn, py(tr) ,mag(tr)	composite	outcrop
17264	337	355054	5361100	crm/lht bn silicified(w/m) sst, py(tr), mag(tr, dss)	composite	float
17265	338	355095	5361100	d grey/gn thinly bdd slst, sil-serp(w/m)	composite	float
17266	339	355290	5361100	pgn to grey weakly hornfels slst	composite	float
17267	342	355385	5361020	grey/pgn hornfels(m) patchy sil-serp altered slst,	composite	outcrop
17268	345	355255	5360855	ironstone, sil-serp-sst selvages	composite	float
17269	348	354705	5359946	grey/pgn silicified(m) sed,patchy sil-serp(w/m),mag(tr),py(0.5%),cpy(tr),sph(1%),mica-vnd(tr)	composite	float
17270	349	354680	5359929	lht bn laminated slst, sil-serp-vnd(1%), py(tr), sph?(tr), sil-mag+/-py-vnd(tr)	composite	subcrop
17271	331	354636	5359883	pgn sil-serp(m) altered sed, py(tr, dss)	composite	subcrop
17272	352	354635	5359814	sil-serp(m) altered slst	composite	outcrop
17273	354	354661	5359787	msv mag, gn sil-serp?(w/m) overprint, bn mica-vnd(tr)	composite	outcrop
17274	355	354680	5359770	wed ironstone	composite	float
17275	356	354691	5359755	msv mag, fibrous replacement texture(after serp?)	composite	float
17276	358	354505	5359526	mg gabbro, mag(w/m)	composite	outcrop
17277	359	355469	5359528	cg gabbro, py(tr), ep?/gn tour(tr)	composite	outcrop
17278	359	355469	5359528	gabbro, joint plane py(4%), cpy(5%), sulphide <1% overall	grab	outcrop
17279	360	355446	5359529	cg gabbro, serp(vw), py(tr)	composite	outcrop
17280	361	355946	5359695	tan wed basaltic seds?, mag(w)	composite	outcrop
17281	361	355936	5359700	tan clay, after fg gabbro, mag(w)	composite	outcrop
17282	361	355928	5359706	tan clay, and fg gabbro, mag(m)	composite	outcrop
17283	361	355920	5359714	tan clay, and fg gabbro, mag(m)	composite	outcrop
17284	362	355900	5359910	mg/cg gabbro, serp(vw), mag(m)	composite	outcrop
17285	364	356150	5360285	mg gabbro, serp(w)	composite	outcrop
17286	365	356185	5360230	mg gabbro	composite	outcrop
17287	366	356280	5360069	fg gabbro, serp(m, locally vnd), mag-vnd(tr), mag(m/s) overall	composite	float
17288	367	356360	5360085	tan clay after gabbro?, bk vnd joints(10%)	composite	outcrop
17289	368	356390	5360180	mg gabbro, serp(w/m), mag(w/m)	composite	float
17290	369	356371	5360120	fg Fe stained gabbro	grab	float
17291	370	356101	5359830	gn fg/mg weakly porphyritic gabbro, serp(m), py(tr)	composite	subcrop
17292	371	355980	5359870	wed mg gabbro, wed mag-vnd(tr)	composite	outcrop

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Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
17293	373	355915	5359345	msv basalt, serp(w/m), py&cpy(tr), native Cu dss in patches(tr)	composite	outcrop
17294	375	356080	5359275	basalt, dgn fg acicular(tour?) xtals, serp(w), py(tr, dss cg)	composite	outcrop
17295	377	356275	5359200	dgn fg basalt, serp(m)	composite	outcrop
17296	378	356890	5360170	mg gabbro, serp(w), sil-serp(tr, vnd)	composite	outcrop
17297	379	355930	5360340	mg gabbro, serp(w)	composite	outcrop
17298	380	355770	5360340	mg gabbro, serp(w), sil-serp(tr, vnd)	composite	outcrop
17299	382	355760	5359900	mg gabbro, serp(w/m), tour-vnd(w), sil-serp(tr, vnd)	composite	outcrop
17300	383	355365	5359470	mg gabbro, serp(w/m), trace calc-sil slickensides, py(tr)	composite	outcrop
17501	118	355620	5360625	ironstone	composite	float
17502	118	355620	5360625	ironstone	composite	float
17503	119	355625	5360645	ironstone, calc-sil(w?)	composite	subcrop
17504	119	355604	5360638	ironstone	composite	float
17505	120	355590	5360650	ferruginous sst/clay, msv mag-vnd	composite	outcrop
17506	120	355575	5360645	ironstone	composite	float
17507	120	355558	5360640	ironstone	composite	subcrop
17508	121	355540	5360640	ironstone	composite	float
17509	122	355490	5360645	crm/pgn slst, sil-serp(w?)	composite	float
17510	123	355420	5360523	pgn fg/mg arenite, mag(m/s, replacement bnd 15%)	composite	float
17511	124	355400	5360507	massive ironstone, mag(s)	composite	subcrop
17512	125	355380	5360490	ironstone, goethite vnd	grab	float
17513	126	355380	5360473	sil(s)-mag(15%) altered zone within gn mg gabbro	grab	outcrop
17514	126	355380	5360575	mg gabbro	grab	outcrop
17515	126	355382	5360470	silica(m/s)-mag(10%)-py(1%) altered gabbro?	grab	outcrop
17516	126	355387	5360463	silica(m)-mag(m)-py(to 15%%, dss & blebs), cpy(tr), sph(tr?) altered gabbro?	composite	outcrop
17517	126	355394	5360457	silica(m/s)-mag(w)-py(1%), sph(0.5?) altered gabbro?	composite	outcrop
17518	127	355465	5360370	10cm+ msv py band, in msv magnetite	grab	float
17519	128	355442	5360357	massive magnetite/ironstone	composite	float
17520	129	355494	5360330	massive magnetite/ironstone	composite	float
17521	129	355494	5360330	gn/grey perv sil-serp(m) altered rock,q-vnd(tr), py(tr to 3%,ave 0.5%),cpy?(tr),mag(10-40%)	composite	float
17522	134	355185	5360243	tan wed mg mafic, FeO(w)	composite	outcrop
17523	136	355078	5360150	ironstone, cg magnetite in fg hm matrix	composite	outcrop
17524	138	354940	5360080	ironstone, FeO vnd	composite	float
17525	138	354925	5360065	grey/pgn sil-serp(m) altered rock, grey q-vnd(1%)	grab	float
17526	139	354918	5360060	pgn sil-serp(m/s) altered slst, sil-mag vnd(tr)	composite	subcrop
17527	140	355090	5359965	gn mg/cg gabbro, serp(w)	composite	float
17528	141	355110	5359953	gn mg/cg gabbro, serp(w)	grab	float
17529	143	355082	5359920	mg/cg gabbro, fol(vw), serp(w/m), crm sil-vnd(tr), mag(tr, dss)	composite	outcrop
17530	143	355215	5359940	lht gn mg/cg gabbro, tour(cg, <4%), serp(m)	composite	subcrop

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Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
17531	145	355240	5359976	*Exhotic float grey pyritic(10%) cpy(tr) silicified sediment*	composite	float
17532	145	355240	5359976	Exhotic float serpentinite with common stichtite (10%)	composite	float
17533	245	355240	5359976	Exhotic float pyritic(2%) black schist	composite	float
17534	150	355316	5360230	ironstone float	composite	float
17535	151	355310	5360265	ironstone float	composite	float
17536	155	355164	5360445	ironstone subcrop	composite	subcrop
17537	156	355140	5360440	ironstone subcrop	composite	subcrop
17538	157	355145	5360400	grey&crm silicified(m/s) slst&sst, py(tr to 0.5%)	composite	outcrop
17539	158	355245	5360180	msv magnetite & ironstone	composite	float
17540	158	355245	5360195	ironstone	composite	float
17541	159	355247	5360215	ironstone	composite	float
17542	160	355270	5360245	msv magnetite	composite	subcrop
17543	160	355275	5360265	msv magnetite & ironstone	composite	subcrop
17544	161	355086	5360209	wed ironstone, calc-sil(w?)	composite	float
17545	162	355079	5360185	wed ironstone	composite	float
17546	163	355150	5360202	wed ironstone	composite	float
17547	163.1	355114	5360157	msv magnetite & ironstone	composite	float
17548	163.2	355082	5360150	ironstone	composite	float
17549	163.3	355062	5360140	ironstone	composite	float
17550	163.4	355038	5360130	ironstone	composite	float
17551	163.5	355018	5360120	ironstone	composite	float
17552	163.6	354994	5360110	ironstone, sph?(tr)	composite	float
17553	163.7	354975	5360100	ironstone	composite	float
17554	164	354900	5360042	pgn/grey silicified(m/s) sed, grey tour?-sil patches(w), mag(tr, dss)	composite	subcrop
17555	165	354878	5360025	pgn sil-serp(m) altered sed, tour?(tr)	composite	subcrop
17556	166	354841	5359975	bn hornfels fg sst/slst, grey q-vnd, sil-serp-py vnd(3%), py(to 4% locally), cpy(tr)	composite	outcrop
17557	166	354836	5359979	pgn sil-serp(w/m) altered slst	composite	outcrop
17558	166	354836	5359979	sil-serp(m)-FeO veins	grab	outcrop
17559	166	354848	5359971	*pgn sil-serp(m) altered sed?, tour?-vnd, py(tr, dss)*	composite	outcrop
17560	167	354856	5359957	pgn sil-serp(w/m) hornfels slst, py(1%, patches)	composite	outcrop
17561	168	354858	5359951	lht bn hornfels slst, sil-serp-py(3%)-sph(2%)-vnd(w)	grab	outcrop
17562	169	354886	5359810	gn fg gabbro, serp(vw)	composite	outcrop
17563	170	354908	5359810	mg/cg gabbro	composite	outcrop
17564	172	354990	5359820	mg gabbro, serp(w), sil-serp-mag-vnd(1%), sulphide(tr)	composite	outcrop
17565	174	355004	5359840	mg gabbro, serp(w), mag(vw)	composite	outcrop
17566	175	355020	5359880	gn mg gabbro, serp(vw)	composite	outcrop
17567	177	354885	5360060	grey sil-serp(w, pervasive &vnd), hornfels slst	composite	outcrop
17568	178	354835	5360115	wed ironstone	composite	float

Tenth Legion Rock Chip Sample Catalogue						
Sample No	Field No	East (AMG)	North (AMG)	Description	Sample Type	Outcrop/subcrop/float
17569	179	354840	5360135	msv mag, zoned hm-veining	composite	outcrop
17570	180	354832	5360255	wed calc-sil(w) altered bk slst?, FeO vnd(4%)	composite	outcrop
17571	183	354785	5360298	mg "white" granite, mafics(<10%)	composite	outcrop
17572	184	354777	5360320	lht bn laminated slst, calc-sil-mag(tr)-veining overprinted by pervasive calc-sil-altn front	composite	outcrop
17573	186	354805	5360170	bk wed msv mag, calc-sil patchy vug fill, hm-mag-vnd(w), mg q-sst selvage	composite	outcrop
17574	187	354710	5360098	dgn sil-serp(s) altered sed, mag(s, dss), sph(tr, locally 2%), py(tr to 2%), serp(s)	composite	outcrop
17575	187	354705	5360103	dgn sil-serp(s) altered sed?, mag(s), sph(3%), py(0.5%, dss)	grab	outcrop
17576	188	354675	5360111	pgn sil-serp(s) altered sed, mag(0.5%, dss), dgn serp-vnd(tr), sph?(tr)	composite	outcrop
17577	189	354652	5360126	indurated lht bn slst, grey q-mag-vnd(tr), py(tr, vnd&bdd parallel)	composite	outcrop
17578	192	354520	5360180	grey slst, mag(m) & sil-serp(m), py(0.5%) altered sst	composite	outcrop
17579	196	354585	5360247	hornfels sst, sil-serp(w/m), mag-vnd(0.5%)	composite	outcrop
17580	198	354725	5360077	laminated slst, sil-serp(m), mag(s), sph(tr to 2%)	composite	outcrop
17581	199	355155	5359550	serp-veins and margins, within mg/cg gabbro, serp(w/m)	composite	outcrop
17582	200	355125	5359505	dgn mg/cg gabbro, mag(m/s), serp(m), aspy/gal?(tr, dss)	composite	outcrop
17583	200	355115	5359520	dgn mg/cg gabbro, mag(m), serp(m)	composite	outcrop
17584	201	355095	5359495	mg/cg gabbro, serp(w/m)	composite	outcrop
17585	201	355095	5359495	dgn mg/cg gabbro, serp(m/s), fol(m)	composite	outcrop
17586	203	355055	5359445	mg gabbro, serp(w/m)	composite	outcrop
17587	205	355010	5359430	gn cg gabbro, serp(w)	composite	outcrop
17588	207	354910	5359345	gn mg gabbro, serp(m)	composite	outcrop
17589	209	354820	5359285	gn mg gabbro, serp(w/m), mag(w)	composite	outcrop
17590	210	354805	5359280	mg/cg gabbro, cg band, sil-serp-vnd(tr)	composite	outcrop
17591	211	354850	5359230	mg gabbro, serp(w/m)	composite	outcrop
17592	212	354810	5359200	mg gabbro, serp(w/m)	composite	outcrop
17593	213	354860	5359160	lht bn, fg/mg arenite, milky q-vnd(tr)	composite	outcrop
17594	215	354720	5359195	mg gabbro, serp(w)	composite	outcrop
17595	219	354590	5359225	wed ironstone, relict pgn fg sst, mag(m/s)	composite	float
17596	219	354585	5359220	dgrey, fg msv magnetite, py+/-cpy(tr to 0.5%)	composite	subcrop
17597	220	354570	5359235	gabbro, mag(s), py(1%)	composite	float
17598	221	354535	5359260	msv mag, serp(w), py(tr)	composite	float
17599	222	354540	5359290	pgn/grey silicified(s) sed?	composite	subcrop
17600	223	354540	5359310	sil-serp(m) altered slst, py(<1%)-vnd(10%)	composite	subcrop

Analytical Reports

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
16801	355145	5359540	13	47	55		-50	41	
16802	355145	5359600	13	10	36		-50	54	
16803	355330	5361450	7	15	40		-50	4	
16804	355245	5361620	8	-3	8		-50	-3	
16805	355245	5361620	3	3	7		-50	-3	
16806	355100	5361615	203	77	410		135	21	
16807	355090	5361615	223	115	785		440	36	
16808	355080	5361595	178	394	275		190	-3	
16809	355080	5361575	42	38	127		-50	6	
16810	355090	5361550	17	64	186		-50	-3	
16811	355090	5361540	42	55	336		135	6	
16812	354770	5361660	-2	-3	5		-50	3	
16813	354745	5361580	58	36	175		-50	-3	
16814	354715	5361570	84	12	637		-50	-3	
16815	354690	5361645	100	384	888		345	11	
16816	354650	5361670	136	35	281		740	-3	
16817	354600	5361745	32	31	1510		190	13	
16818	354515	5361385	2	-3	12		-50	3	
16819	354725	5361370	4	-3	31		-50	4	
16820	354795	5361555	73	9	23		-50	23	
16821	354950	5361520	-2	23	9		-50	6	
16822	355055	5361455	25	11	39		-50	23	
16823	355055	5361455	4	14	26		-50	26	
16824	355110	5361385	9	11	27		-50	21	
16825	355240	5361360	48	3	347		-50	-3	
16826	355260	5361365	74	13	240		-50	4	
16827	355280	5361365	70	48	936		-50	3	
16828	355345	5361340	19	63	161		300	-3	
16829	355365	5361335	19	19	159		250	11	
16830	355400	5361325	22	45	155		415	4	
16831	355415	5361315	17	61	159		760	4	
16832	355455	5361290	16	47	484		60	-3	
16833	355490	5361275	15	67	371		-50	-3	
16834	355510	5361270	21	164	349		-50	-3	
16835	355525	5361260	30	97	406		-50	-3	
16836	355542	5361255	15	34	247		-50	-3	
16837	355560	5361250	20	42	124		-50	-3	
16838	355580	5361245	29	73	817		240	-3	
16839	355597	5361245	35	231	353		270	-3	
16840	355616	5361240	28	520	469		165	5	
16841	355635	5361235	3	83	132		-50	3	
16842	355655	5361232	55	166	303		-50	-3	
16843	355670	5361234	105	393	162		-50	3	
16844	355685	5361236	76	293	166		-50	-3	
16845	355710	5361254	11	39	27		-50	-3	
16846	355568	5361245	88	158	230		755	-3	
16847	355420	5361150	9	21	21		-50	11	
16848	355425	5361130	10	14	19		-50	6	
16849	355200	5361275	10	-3	185		-50	5	
16850	355200	5361290	104	11	798		55	-3	
16851	355285	5361475	64	-3	371		55	-3	

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
16852	355210	5361490	271	64	53		80	10	
16853	355260	5361520	5	12	21		-50	3	
16854	355645	5361260	23	79	54		-50	3	
16855	355620	5361265	43	1195	695		700	-3	
16856	355740	5361170	79	174	192		-50	3	
16857	355735	5361162	22	236	76		-50	10	
16858	355740	5361140	26	134	136		-50	3	
16859	355700	5361100	137	219	403		190	-3	
16860	355800	5361025	328	423	979		515	12	
16861	355820	5361040	9	53	80		-50	5	
16864	355898	5361005	31	243	231		-50	8	
16865	355970	5360955	999	648	154		-50	10	
16866	356005	5360935	809	466	144		-50	19	
16867	356005	5360935	16	691	25		290	69	
16868	356175	5360905	212	92	31		-50	-3	
16869	356285	5360875	161	603	858		-50	5	
16870	355960	5360920	32	215	29		-50	12	
16871	356080	5360790	14	29	34		-50	9	
16872	356255	5361105	26	131	11		-50	9	
16873	355632	5360662	70	231	416	-1	-50	17	-10
16874	355672	5360695	32	99	1030	-1	340	18	-10
16875	355675	5360670	14	307	1015	-1	-50	23	-10
16876	355691	5360682	4	30	149	-1	-50	14	-10
16877	355820	5360755	13	8	43	-1	-50	13	-10
16878	355870	5360750	11	10	50	-1	-50	24	-10
16879	355970	5360752	-2	5	9	-1	-50	3	-10
16880	356325	5360725	16	530	191	-1	90	-3	-10
16881	356510	5360625	51	102	125	-1	-50	15	-10
16882	356545	5360605	6	12	98	-1	-50	81	-10
16883	356545	5360595	4	26	119	-1	-50	108	-10
16884	356590	5360555	4	17	169	-1	-50	101	-10
16885	356265	5360730	193	811	2200	4	70	25	-10
16886	356275	5360730	22	55	215	-1	-50	34	12
16887	356260	5360685	11	151	290	-1	-50	229	23
16888	356210	5360585	11	277	255	-1	-50	166	-10
16889	356095	5360590	21	4	49	-1	-50	106	-10
16890	356115	5360760	8	64	80	-1	-50	16	-10
16891	355840	5360740	-2	11	37	-1	-50	11	-10
16892	355850	5360725	22	18	26	-1	-50	12	-10
16893	355852	5360615	3	11	26	-1	-50	-3	-10
16894	355855	5360590	7	13	34	-1	-50	37	-10
16895	355735	5360540	4	26	55	-1	-50	41	-10
16896	355704	5360515	-2	85	160	-1	-50	21	-10
16897	355698	5360625	42	226	675	-1	410	35	-10
16898	355622	5360662	6	62	114	-1	105	11	-10
16899	355530	5360695	42	186	69	-1	75	122	-10
16900	355504	5360697	6	22	57	-1	65	-3	-10
17201	354520	5359325	13	8	22	-1	-50	27	-10
17202	354510	5359285	5	17	32	-1	-50	23	-10
17203	354315	5359245	5	-3	25	-1	-50	71	-10
17204	354315	5359245	4	-3	6	-1	-50	-3	-10

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
17205	354290	5359130	3	-3	8	-1	-50	-3	-10
17206	354290	5359130	14	95	10	-1	-50	6	-10
17207	354125	5359130	15	7	34	-1	-50	60	-10
17208	355175	5359640	8	10	44	-1	-50	40	-10
17209	355180	5359780	7	5	44	-1	-50	34	-10
17210	355790	5359830	8	12	59	-1	-50	41	-10
17211	355230	5359875	10	16	69	-1	-50	37	-10
17212	355305	5359870	13	16	61	-1	-50	49	-10
17213	355305	5359975	12	10	54	-1	-50	74	-10
17214	355345	5360050	14	11	54	-1	-50	74	-10
17215	355385	5360035	11	14	48	-1	-50	46	-10
17216	355610	5359805	47	25	69	-1	-50	57	-10
17217	355475	5359635	38	3	47	-1	-50	46	-10
17218	355420	5359575	152	3	51	-1	-50	43	-10
17219	354760	5359310	10	-3	44	-1	-50	133	-10
17220	354750	5359335	9	-3	28	-1	-50	178	-10
17221	354740	5359350	4	7	11	-1	-50	4	-10
17222	354720	5359375	8	15	83	-1	-50	213	-10
17223	354735	5359545	42	49	133	-1	-50	181	-10
17224	354790	5359555	3	-3	23	-1	-50	97	-10
17225	354810	5359600	6	8	33	-1	-50	56	-10
17226	354815	5359635	7	9	36	-1	-50	49	-10
17227	354840	5359690	7	8	35	-1	-50	37	-10
17228	354860	5359735	12	7	42	-1	-50	51	-10
17229	354885	5359775	5	10	45	-1	-50	46	-10
17230	354900	5359550	6	8	34	-1	-50	45	-10
17231	354735	5359615	29	39	187	-1	-50	305	12
17232	354775	5359705	9	97	175	-1	-50	235	-10
17233	354785	5359735	7	25	449	-1	-50	281	-10
17234	354785	5359735	3	9	77	-1	-50	151	11
17235	354790	5359755	10	20	87	-1	-50	74	14
17236	354830	5359965	7	7	155	-1	-50	43	-10
17237	354815	5359975	6	4	56	-1	-50	40	14
17238	354770	5360005	11	14	533	-1	-50	13	-10
17239	354735	5360027	65	-3	17400	-1	-50	33	-10
17240	354735	5360050	9	-3	6300	-1	-50	41	-10
17241	354705	5360010	170	-3	41000	-1	-50	40	-10
17242	354085	5359360	6	-3	190	-1	-50	-3	-10
17243	354115	5359325	33	4	76	-1	-50	42	-10
17244	354085	5359425	6	12	43	-1	-50	9	-10
17245	354095	5359560	5	7	121	-1	-50	-3	-10
17246	354100	5359575	3	9	27	-1	-50	-3	-10
17247	354105	5359620	3	12	33	-1	-50	12	-10
17248	354111	5359645	34	5	151	-1	-50	1885	-10
17249	354115	5359720	6	-3	67	-1	-50	648	-10
17250	354113	5359750	179	11	3120	-1	-50	135	-10
17251	354100	5359780	26	14	104	-1	-50	12	-10
17252	354190	5359920	50	36	60	-1	-50	26	-10
17253	354235	5359520	7	14	51	-1	-50	6	-10
17254	354315	5359920	36	3	157	-1	-50	4	-10
17255	354345	5359880	75	-3	168	-1	65	161	-10

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
17256	354360	5359860	164	-3	472	-1	-50	162	-10
17257	354445	5360780	32	7	165	-1	-50	74	-10
17258	354540	5359730	59	16	832	-1	-50	246	-10
17259	354697	5359710	1145	171	2880	4	245	180	-10
17260	354795	5360400	245	58	2050	2	125	4	-10
17261	354750	5360470	33	17	657	2	290	5	-10
17262	354750	5360870	130	26	1010	1	90	18	-10
17263	354855	5360784	33	10	106	-1	-50	6	-10
17264	355054	5361100	8	14	30	-1	-50	28	-10
17265	355095	5361100	16	5	68	-1	-50	4	-10
17266	355290	5361100	6	-3	19	-1	-50	7	-10
17267	355385	5361020	6	13	24	-1	-50	13	-10
17268	355255	5360855	152	8	1225	-1	-50	-3	-10
17269	354705	5359946	171	27	8300	-1	60	18	-10
17270	354680	5359929	13	-3	78	-1	-50	8	-10
17271	354636	5359883	15	6	680	-1	95	12	-10
17272	354635	5359814	8	43	110	-1	-50	19	-10
17273	354661	5359787	38	-3	931	-1	-50	73	-10
17274	354680	5359770	36	-3	250	-1	-50	74	-10
17275	354691	5359755	54	-3	880	-1	60	79	-10
17276	354505	5359526	63	10	50	-1	-50	41	-10
17277	355469	5359528	130	9	36	-1	-50	37	-10
17278	355469	5359528	307	7	45	-1	-50	27	-10
17279	355446	5359529	131	3	30	-1	-50	27	-10
17280	355946	5359695	163	20	29	-1	-50	34	-10
17281	355936	5359700	212	4	27	-1	-50	39	-10
17282	355928	5359706	188	3	25	-1	-50	37	-10
17283	355920	5359714	124	6	25	-1	-50	40	-10
17284	355900	5359910	90	3	34	-1	-50	41	-10
17285	356150	5360285	16	15	83	-1	-50	173	-10
17286	356185	5360230	82	-3	44	-1	-50	58	-10
17287	356280	5360069	36	-3	64	-1	-50	35	-10
17288	356360	5360085	214	4	141	-1	-50	70	-10
17289	356390	5360180	132	-3	86	-1	-50	44	-10
17290	356371	5360120	43	-3	82	-1	-50	18	-10
17291	356101	5359830	53	-3	31	-1	-50	17	-10
17292	355980	5359870	133	12	53	-1	-50	19	-10
17293	355915	5359345	142	-3	31	-1	-50	30	11
17294	356080	5359275	115	-3	25	-1	80	35	11
17295	356275	5359200	18	-3	42	-1	-50	18	-10
17296	356890	5360170	15	4	36	-1	-50	52	18
17297	355930	5360340	19	11	64	-1	-50	77	-10
17298	355770	5360340	38	20	51	-1	-50	50	-10
17299	355760	5359900	13	21	51	-1	-50	49	-10
17300	355365	5359470	211	3	46	-1	-50	48	-10
17501	355620	5360625	41	99	212	-1	185	12	-10
17502	355620	5360625	137	214	159	-1	-50	6	-10
17503	355625	5360645	102	106	351	-1	150	24	-10
17504	355604	5360638	128	61	232	-1	160	-3	-10
17505	355590	5360650	731	162	546	-1	620	9	-10
17506	355575	5360645	83	45	197	-1	-50	6	-10

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
17507	355558	5360640	220	67	180	-1	80	3	-10
17508	355540	5360640	177	58	187	-1	55	19	-10
17509	355490	5360645	16	37	33	-1	-50	28	-10
17510	355420	5360523	220	168	496	-1	220	-3	-10
17511	355400	5360507	179	121	442	-1	220	-3	-10
17512	355380	5360490	190	128	319	-1	355	-3	-10
17513	355380	5360473	45	138	874	-1	-50	16	-10
17514	355380	5360575	39	135	855	-1	70	11	-10
17515	355382	5360470	207	395	2010	-1	-50	12	-10
17516	355387	5360463	78	69	1265	-1	-50	10	-10
17517	355394	5360457	24	59	470	-1	-50	4	-10
17518	355465	5360370	1160	27	145	3	-50	90	-10
17519	355442	5360357	67	18	219	-1	-50	9	-10
17520	355494	5360330	54	1900	331	-1	-50	40	-10
17521	355494	5360330	163	12	812	-1	-50	46	-10
17522	355185	5360243	73	59	127	-1	-50	17	-10
17523	355078	5360150	45	36	456	-1	-50	15	-10
17524	354940	5360080	12	10	452	-1	-50	51	-10
17525	354925	5360065	8	25	50	-1	-50	21	-10
17526	354918	5360060	6	16	58	-1	-50	20	-10
17527	355090	5359965	7	5	43	-1	-50	60	-10
17528	355110	5359953	12	8	32	-1	-50	64	-10
17529	355082	5359920	10	17	43	-1	-50	41	-10
17530	355215	5359940	74	79	698	-1	-50	132	-10
17531	355240	5359976	133	14000	6600	-1	1740	7	-10
17532	355240	5359976	12	63	139	-1	-50	1540	-10
17533	355240	5359976	18	91	114	-1	-50	29	-10
17534	355316	5360230	95	10	172	-1	60	15	-10
17535	355310	5360265	207	52	443	-1	195	25	-10
17536	355164	5360445	7	36	263	-1	425	-3	-10
17537	355140	5360440	7	23	398	-1	460	6	-10
17538	355145	5360400	12	26	83	-1	-50	5	-10
17539	355245	5360180	389	34	661	-1	-50	23	-10
17540	355245	5360195	118	19	423	-1	180	40	-10
17541	355247	5360215	47	5	178	-1	55	30	-10
17542	355270	5360245	93	26	674	-1	95	26	-10
17543	355275	5360265	814	68	678	-1	110	37	-10
17544	355086	5360209	238	11	330	-1	-50	71	-10
17545	355079	5360185	74	8	213	-1	75	26	-10
17546	355150	5360202	331	55	218	-1	70	26	-10
17547	355114	5360157	52	9	202	-1	70	27	-10
17548	355082	5360150	46	6	412	-1	-50	17	-10
17549	355062	5360140	68	6	398	-1	-50	30	-10
17550	355038	5360130	67	8	213	-1	-50	70	-10
17551	355018	5360120	18	-3	315	-1	-50	50	-10
17552	354994	5360110	22	3	293	-1	-50	85	-10
17553	354975	5360100	17	3	430	-1	-50	51	-10
17554	354900	5360042	6	4	51	-1	-50	10	-10
17555	354878	5360025	3	9	53	-1	-50	9	-10
17556	354841	5359975	8	8	90	-1	-50	30	-10
17557	354836	5359979	22	23	646	-1	-50	18	-10

Tenth Legion Rock Chip Analysis

Sample No	East (AMG)	North (AMG)	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	As_ppm	Ni_ppm	Sb_ppm
17558	354836	5359979	25	35	1625	-1	-50	39	-10
17559	354848	5359971	7	4	32	-1	-50	20	-10
17560	354856	5359957	72	6	261	-1	-50	70	-10
17561	354858	5359951	20	10	44	-1	-50	43	-10
17562	354886	5359810	32	14	60	-1	-50	43	-10
17563	354908	5359810	6	13	51	-1	-50	76	-10
17564	354990	5359820	17	12	32	-1	-50	16	-10
17565	355004	5359840	7	9	36	-1	-50	53	-10
17566	355020	5359880	8	9	37	-1	-50	49	-10
17567	354885	5360060	3	8	39	-1	-50	5	-10
17568	354835	5360115	105	3	471	-1	80	6	-10
17569	354840	5360135	123	278	885	-1	235	10	-10
17570	354832	5360255	243	206	340	-1	255	10	-10
17571	354785	5360298	13	30	343	-1	-50	38	-10
17572	354777	5360320	16	22	88	-1	-50	20	-10
17573	354805	5360170	550	15	4810	-1	-50	40	-10
17574	354710	5360098	70	8	6700	-1	-50	44	-10
17575	354705	5360103	62	-3	7900	-1	-50	39	-10
17576	354675	5360111	12	-3	90	-1	-50	15	-10
17577	354652	5360126	23	12	86	-1	-50	6	-10
17578	354520	5360180	136	6	987	-1	-50	25	-10
17579	354585	5360247	4	10	35	-1	-50	8	-10
17580	354725	5360077	19	9	7000	-1	-50	34	-10
17581	355155	5359550	20	42	49	-1	-50	14	-10
17582	355125	5359505	23	11	38	-1	-50	43	-10
17583	355115	5359520	16	6	44	-1	-50	42	-10
17584	355095	5359495	31	5	29	-1	-50	36	-10
17585	355095	5359495	19	12	32	-1	-50	20	-10
17586	355055	5359445	37	17	50	-1	-50	47	-10
17587	355010	5359430	12	-3	25	-1	-50	40	-10
17588	354910	5359345	19	9	46	-1	-50	72	-10
17589	354820	5359285	10	21	26	-1	-50	46	-10
17590	354805	5359280	5	13	19	-1	-50	14	-10
17591	354850	5359230	8	12	37	-1	-50	68	-10
17592	354810	5359200	6	5	30	-1	-50	63	-10
17593	354860	5359160	9	7	5	-1	-50	6	-10
17594	354720	5359195	9	7	28	-1	-50	72	-10
17595	354590	5359225	10	5	297	-1	145	456	-10
17596	354585	5359220	8	-3	121	-1	-50	2290	-10
17597	354570	5359235	8	-3	123	-1	-50	2870	-10
17598	354535	5359260	21	8	36	-1	-50	133	-10
17599	354540	5359290	31	22	58	-1	-50	78	-10
17600	354540	5359310	51	13	31	-1	-50	131	13

660035

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 : BU017000
Your reference : **128507**
Project code : Rock
Date received : 18/10/99
Date reported : 27/10/99

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 2
Number of Samples : 70
First Sample : 16801
Last Sample : 16872

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :

Modem		Y 27/10/99
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.

660036

A N A L A B S

Our reference : BU017000
Your reference : 128507
Project code : Rock
Report date : 27/10/99
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	Cu	Pb	Zn	As	Ni
*Blk BLANK	<2	<3	2	<50	<3
16801	13	47	55	<50	41
16802	13	10	36	<50	54
16803	7	15	40	<50	4
16804	8	<3	8	<50	<3
16805	3	3	7	<50	<3
16806	203	77	410	135	21
16807	223	115	785	440	36
16808	178	394	275	190	<3
16809	42	38	127	<50	6
16810	17	64	186	<50	<3
*SS 16810	16	60	179	<50	<3
16811	42	55	336	135	6
16812	<2	<3	5	<50	3
16813	58	36	175	<50	<3
16814	84	12	637	<50	<3
16815	100	384	888	345	11
16816	136	35	281	740	<3
16817	32	31	1510	190	13
*Std BM15	30	96	1020	<50	6
16818	2	<3	12	<50	3
16819	4	<3	31	<50	4
16820	73	9	23	<50	23
16821	<2	23	9	<50	6
16822	25	11	39	<50	23
16823	4	14	26	<50	26
16824	9	11	27	<50	21
16825	48	3	347	<50	<3
16826	74	13	240	<50	4
16827	70	48	936	<50	3
16828	19	63	161	300	<3
16829	19	19	159	250	11
16830	22	45	155	415	4
16831	17	61	159	760	4
16832	16	47	484	60	<3
16833	15	67	371	<50	<3
16834	21	164	349	<50	<3
16835	30	97	406	<50	<3
*SS 16835	30	103	400	<50	<3
16836	15	34	247	<50	<3
16837	20	42	124	<50	<3
16838	29	73	817	240	<3
16839	35	231	353	270	<3
16840	28	520	469	165	5
16841	3	83	132	<50	3
16842	55	166	303	<50	<3
16843	105	393	162	<50	3
*Rep 16827	67	48	986	<50	<3
*Rep 16831	16	58	155	730	<3
*Std AAL1	153	466	2060	80	11
Method	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	50	3

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

660037

A N A L A B S

Our reference : BU017000
Your reference : **128507**
Project code : Rock
Report date : 27/10/99
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	As	Ni	
*Blk BLANK	2	<3	2	<50	<3	
16844	76	293	166	<50	<3	
16845	11	39	27	<50	<3	
16846	88	158	230	755	<3	
16847	9	21	21	<50	11	
16848	10	14	19	<50	6	
16849	10	<3	185	<50	5	
16850	104	11	798	55	<3	
16851	64	<3	371	55	<3	
16852	271	64	53	80	10	
16853	5	12	21	<50	3	
16854	23	79	54	<50	3	
16855	43	1195	695	700	<3	
16856	79	174	192	<50	3	
16857	22	236	76	<50	10	
16858	26	134	136	<50	3	
16859	137	219	403	190	<3	
16860	328	423	979	515	12	
*SS 16860	324	417	957	495	10	
*Std BM15	31	100	1030	<50	6	
16861	9	53	80	<50	5	
16864	31	243	231	<50	8	
16865	999	648	154	<50	10	
16866	809	466	144	<50	19	
16867	16	691	25	290	69	
16868	212	92	31	<50	<3	
16869	161	603	858	<50	5	
16870	32	215	29	<50	12	
16871	14	29	34	<50	9	
16872	26	131	11	<50	9	
*Rep 16851	62	<3	358	<50	<3	
*Rep 16856	76	176	186	<50	<3	
*Std AAL1	151	466	2030	90	8	
Method	A102	A102	A102	A102	A102	
Units	ppm	ppm	ppm	ppm	ppm	
Detection Limit	2	3	2	50	3	

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

660038

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 : BU017027
Your reference : **128509**
Project code : Rock Samples
Date received : 22/10/99
Date reported : 04/11/99

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 9
Number of Samples : 108
First Sample : 17501
Last Sample : 16900

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :

Modem		Y 04/11/99
Facsimile		/ /
Disk Report	Y	/ /

Preliminary Reports :
03/11/99 Report
03/11/99 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.

660039

A N A L A B S

Our reference : BU017027
Your reference : 128509
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 1 of 9

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	Ni	As
*Blk BLANK	<2	<3	2	<1	<3	<50
17501	41	99	212	<1	12	185
17502	137	214	159	<1	6	<50
17503	102	106	351	<1	24	150
17504	128	61	232	<1	<3	160
17505	731	162	546	<1	9	620
17506	83	45	197	<1	6	<50
17507	220	67	180	<1	3	80
17508	177	58	187	<1	19	55
17509	16	37	33	<1	28	<50
17510	220	168	496	<1	<3	220
*SS 17510	221	170	489	<1	<3	200
17511	179	121	442	<1	<3	220
17512	190	128	319	<1	<3	355
17513	45	138	874	<1	16	<50
17514	39	135	855	<1	11	70
17515	207	395	2010	<1	12	<50
17516	78	69	1265	<1	10	<50
17517	24	59	470	<1	4	<50
*Std BM15	30	92	1005	<1	4	<50
17518	1160	27	145	3	90	<50
17519	67	18	219	<1	9	<50
17520	54	1900	331	<1	40	<50
17521	163	12	812	<1	46	<50
17522	73	59	127	<1	17	<50
17523	45	36	456	<1	15	<50
17524	12	10	452	<1	51	<50
17525	8	25	50	<1	21	<50
17526	6	16	58	<1	20	<50
17527	7	5	43	<1	60	<50
17528	12	8	32	<1	64	<50
17529	10	17	43	<1	41	<50
17530	74	79	698	<1	132	<50
17531	133	>5000	>5000	<1	7	1740
17532	12	63	139	<1	1540	<50
17533	18	91	114	<1	29	<50
17534	95	10	172	<1	15	60
17535	207	52	443	<1	25	195
*SS 17535	201	54	454	<1	22	180
17536	7	36	263	<1	<3	425
17537	7	23	398	<1	6	460
17538	12	26	83	<1	5	<50
17539	389	34	661	<1	23	<50
17540	118	19	423	<1	40	180
17541	47	5	178	<1	30	55
17542	93	26	674	<1	26	95
17543	814	68	678	<1	37	110
*Rep 17521	162	14	805	<1	45	<50
*Rep 17532	10	58	135	<1	1520	<50
*Std AAL1	155	471	2060	<1	11	95
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	3	50

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

660040

ANALABS

Our reference : BU017027
Your reference : 128509
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 2 of 9

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	Ni	As
*Blk BLANK	<2	<3	2	<1	<3	<50
17544	238	11	330	<1	71	<50
17545	74	8	213	<1	26	75
17546	331	55	218	<1	26	70
17547	52	9	202	<1	27	70
17548	46	6	412	<1	17	<50
17549	68	6	398	<1	30	<50
17550	67	8	213	<1	70	<50
17551	18	<3	315	<1	50	<50
17552	22	3	293	<1	85	<50
17553	17	3	430	<1	51	<50
17554	6	4	51	<1	10	<50
17555	3	9	53	<1	9	<50
17556	8	8	90	<1	30	<50
17557	22	23	646	<1	18	<50
17558	25	35	1625	<1	39	<50
17559	7	4	32	<1	20	<50
17560	72	6	261	<1	70	<50
*SS 17560	73	6	256	<1	74	<50
*Std BM15	28	97	1020	<1	5	<50
17561	20	10	44	<1	43	<50
17562	32	14	60	<1	43	<50
17563	6	13	51	<1	76	<50
17564	17	12	32	<1	16	<50
17565	7	9	36	<1	53	<50
17566	8	9	37	<1	49	<50
17567	3	8	39	<1	5	<50
17568	105	3	471	<1	6	80
17569	123	278	885	<1	10	235
17570	243	206	340	<1	10	255
17571	13	30	343	<1	38	<50
17572	16	22	88	<1	20	<50
17573	550	15	4810	<1	40	<50
17574	70	8	>5000	<1	44	<50
17575	62	<3	>5000	<1	39	<50
17576	12	<3	90	<1	15	<50
17577	23	12	86	<1	6	<50
17578	136	6	987	<1	25	<50
17579	4	10	35	<1	8	<50
17580	19	9	>5000	<1	34	<50
16873	70	231	416	<1	17	<50
16874	32	99	1030	<1	18	340
16875	14	307	1015	<1	23	<50
16876	4	30	149	<1	14	<50
16877	13	8	43	<1	13	<50
*SS 16877	12	11	41	<1	15	<50
16878	11	10	50	<1	24	<50
*Rep 17550	69	6	221	<1	68	<50
*Rep 17579	6	8	38	<1	10	<50
*Std AAL1	150	456	2070	<1	14	95
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	3	50

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

660041

ANALABS

Our reference : BU017027
Your reference : 128509
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 3 of 9

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	Ni	As
*Blk BLANK	<2	<3	3	<1	<3	<50
16879	<2	5	9	<1	3	<50
16880	16	530	191	<1	<3	90
16881	51	102	125	<1	15	<50
16882	6	12	98	<1	81	<50
16883	4	26	119	<1	108	<50
16884	4	17	169	<1	101	<50
16885	193	811	2200	4	25	70
16886	22	55	215	<1	34	<50
16887	11	151	290	<1	229	<50
16888	11	277	255	<1	166	<50
16889	21	4	49	<1	106	<50
16890	8	64	80	<1	16	<50
16891	<2	11	37	<1	11	<50
16892	22	18	26	<1	12	<50
16893	3	11	26	<1	<3	<50
16894	7	13	34	<1	37	<50
16895	4	26	55	<1	41	<50
16896	<2	85	160	<1	21	<50
*Std BM15	30	93	1000	<1	6	<50
16897	42	226	675	<1	35	410
16898	6	62	114	<1	11	105
16899	42	186	69	<1	122	75
16900	6	22	57	<1	<3	65
*Rep 16896	3	82	166	<1	18	<50
*Std AAL1	155	503	2090	1	13	100
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	3	50

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

660042

ANALABS

Our reference : BU017027
Your reference : **128509**
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 4 of 9

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

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	<10					
17501	<10					
17502	<10					
17503	<10					
17504	<10					
17505	<10					
17506	<10					
17507	<10					
17508	<10					
17509	<10					
17510	<10					
*SS 17510	--					
17511	<10					
17512	<10					
17513	<10					
17514	<10					
17515	<10					
17516	<10					
17517	<10					
*Std BM15	--					
17518	<10					
17519	<10					
17520	<10					
17521	<10					
17522	<10					
17523	<10					
17524	<10					
17525	<10					
17526	<10					
17527	<10					
17528	<10					
17529	<10					
17530	<10					
17531	<10					
17532	<10					
17533	<10					
17534	<10					
17535	<10					
*SS 17535	--					
17536	<10					
17537	<10					
17538	<10					
17539	<10					
17540	<10					
17541	<10					
17542	<10					
17543	<10					
*Rep 17521	--					
*Rep 17532	--					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

660043

ANALABS

Our reference : BU017027
Your reference : 128509
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
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Analabs Pty. Ltd.
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	--					
17544	<10					
17545	<10					
17546	<10					
17547	<10					
17548	<10					
17549	<10					
17550	<10					
17551	<10					
17552	<10					
17553	<10					
17554	<10					
17555	<10					
17556	<10					
17557	<10					
17558	<10					
17559	<10					
17560	<10					
*SS 17560	--					
*Std BM15	--					
17561	<10					
17562	<10					
17563	<10					
17564	<10					
17565	<10					
17566	<10					
17567	<10					
17568	<10					
17569	<10					
17570	<10					
17571	<10					
17572	<10					
17573	<10					
17574	<10					
17575	<10					
17576	<10					
17577	<10					
17578	<10					
17579	<10					
17580	<10					
16873	<10					
16874	<10					
16875	<10					
16876	<10					
16877	<10					
*SS 16877	--					
16878	<10					
*Rep 17550	--					
*Rep 17579	--					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

660044

A N A L A B S

Our reference : BU017027
Your reference : **128509**
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
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Analabs Pty. Ltd.
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	--					
16879	<10					
16880	<10					
16881	<10					
16882	<10					
16883	<10					
16884	<10					
16885	<10					
16886	12					
16887	23					
16888	<10					
16889	<10					
16890	<10					
16891	<10					
16892	<10					
16893	<10					
16894	<10					
16895	<10					
16896	<10					
*Std BM15	--					
16897	<10					
16898	<10					
16899	<10					
16900	<10					
*Rep 16896	--					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

ANALABS

Our reference : BU017027
Your reference : 128509
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
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Analabs Pty. Ltd.
ACN 004 591 664
14 Thirkell St, Burnie
Tasmania 7320
Telephone : (03) 6431 6837
Facsimile : (03) 6431 8890

ANALYTICAL DATA

Sample	Pb	Zn				
*Blk BLANK	N.A.	N.A.				
17501	N.A.	N.A.				
17502	N.A.	N.A.				
17503	N.A.	N.A.				
17504	N.A.	N.A.				
17505	N.A.	N.A.				
17506	N.A.	N.A.				
17507	N.A.	N.A.				
17508	N.A.	N.A.				
17509	N.A.	N.A.				
17510	N.A.	N.A.				
*SS 17510	N.A.	N.A.				
*Std 3024	N.A.	N.A.				
17511	N.A.	N.A.				
17512	N.A.	N.A.				
17513	N.A.	N.A.				
17514	N.A.	N.A.				
17515	N.A.	N.A.				
17516	N.A.	N.A.				
17517	N.A.	N.A.				
17518	N.A.	N.A.				
17519	N.A.	N.A.				
17520	N.A.	N.A.				
17521	N.A.	N.A.				
17522	N.A.	N.A.				
17523	N.A.	N.A.				
17524	N.A.	N.A.				
17525	N.A.	N.A.				
17526	N.A.	N.A.				
17527	N.A.	N.A.				
17528	N.A.	N.A.				
17529	N.A.	N.A.				
17530	N.A.	N.A.				
17531	1.40	0.66				
17532	N.A.	N.A.				
17533	N.A.	N.A.				
17534	N.A.	N.A.				
17535	N.A.	N.A.				
*SS 17535	N.A.	N.A.				
17536	N.A.	N.A.				
17537	N.A.	N.A.				
17538	N.A.	N.A.				
17539	N.A.	N.A.				
17540	N.A.	N.A.				
17541	N.A.	N.A.				
17542	N.A.	N.A.				
*Rep 17505	N.A.	N.A.				
*Rep 17527	N.A.	N.A.				
*Std MGS3	N.A.	N.A.				
*Std MPIA	N.A.	N.A.				
Method	A103	A103				
Units	%	%				
Detection Limit	0.01	0.01				

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

660046

A N A L A B S

Our reference : BU017027
Your reference : **128509**
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 8 of 9

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

ANALYTICAL DATA

Sample	Pb	Zn				
*Blk BLANK	N.A.	N.A.				
17543	N.A.	N.A.				
17544	N.A.	N.A.				
17545	N.A.	N.A.				
17546	N.A.	N.A.				
17547	N.A.	N.A.				
17548	N.A.	N.A.				
17549	N.A.	N.A.				
17550	N.A.	N.A.				
17551	N.A.	N.A.				
17552	N.A.	N.A.				
17553	N.A.	N.A.				
17554	N.A.	N.A.				
17555	N.A.	N.A.				
17556	N.A.	N.A.				
17557	N.A.	N.A.				
17558	N.A.	N.A.				
17559	N.A.	N.A.				
17560	N.A.	N.A.				
*SS 17560	N.A.	N.A.				
17561	N.A.	N.A.				
17562	N.A.	N.A.				
*Std 3024	N.A.	N.A.				
17563	N.A.	N.A.				
17564	N.A.	N.A.				
17565	N.A.	N.A.				
17566	N.A.	N.A.				
17567	N.A.	N.A.				
17568	N.A.	N.A.				
17569	N.A.	N.A.				
17570	N.A.	N.A.				
17571	N.A.	N.A.				
17572	N.A.	N.A.				
17573	N.A.	N.A.				
17574	N.A.	0.67				
17575	N.A.	0.79				
17576	N.A.	N.A.				
17577	N.A.	N.A.				
17578	N.A.	N.A.				
17579	N.A.	N.A.				
17580	N.A.	0.70				
16873	N.A.	N.A.				
16874	N.A.	N.A.				
16875	N.A.	N.A.				
16876	N.A.	N.A.				
16877	N.A.	N.A.				
*Rep 17565	N.A.	N.A.				
*Rep 17570	N.A.	N.A.				
*Std MGS3	N.A.	N.A.				
*Std MP1A	N.A.	N.A.				
Method	A103	A103				
Units	%	%				
Detection Limit	0.01	0.01				

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

660047

A N A L A B S

Our reference : BU017027
Your reference : **128509**
Project code : Rock Samples
Report date : 04/11/99
Report status : Final
Page : 9 of 9

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

ANALYTICAL DATA

Sample	Pb	Zn				
*Blk BLANK	N.A.	N.A.				
*SS 16877	N.A.	N.A.				
16878	N.A.	N.A.				
16879	N.A.	N.A.				
16880	N.A.	N.A.				
16881	N.A.	N.A.				
16882	N.A.	N.A.				
16883	N.A.	N.A.				
16884	N.A.	N.A.				
16885	N.A.	N.A.				
*Std 3024	N.A.	N.A.				
16886	N.A.	N.A.				
16887	N.A.	N.A.				
16888	N.A.	N.A.				
16889	N.A.	N.A.				
16890	N.A.	N.A.				
16891	N.A.	N.A.				
16892	N.A.	N.A.				
16893	N.A.	N.A.				
16894	N.A.	N.A.				
16895	N.A.	N.A.				
16896	N.A.	N.A.				
16897	N.A.	N.A.				
16898	N.A.	N.A.				
*Std MGS3	N.A.	N.A.				
16899	N.A.	N.A.				
16900	N.A.	N.A.				
*Rep 16891	N.A.	N.A.				
*Std MP1A	N.A.	N.A.				
Method	A103	A103				
Units	%	%				
Detection Limit	0.01	0.01				

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

G60048

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 : BU017070
Your reference : **128512**
Project code : Rock Samples
Date received : 02/11/99
Date reported : 18/11/99

Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 9
Number of Samples : 120
First Sample : 17581
Last Sample : 17300

Invoice to:
Lindsay Newnham
Managing Geologist

Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :

Modem	Y	18/11/99
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.

G60049

A N A L A B S

Our reference : BU017070
Your reference : **128512**
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 1 of 9

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	As	Ni
*Blk BLANK	<2	<3	2	<1	<50	<3
17581	20	42	49	<1	<50	14
17582	23	11	38	<1	<50	43
17583	16	6	44	<1	<50	42
17584	31	5	29	<1	<50	36
17585	19	12	32	<1	<50	20
17586	37	17	50	<1	<50	47
17587	12	<3	25	<1	<50	40
17588	19	9	46	<1	<50	72
17589	10	21	26	<1	<50	46
17590	5	13	19	<1	<50	14
*SS 17590	4	14	20	<1	<50	15
17591	8	12	37	<1	<50	68
17592	6	5	30	<1	<50	63
17593	9	7	5	<1	<50	6
17594	9	7	28	<1	<50	72
17595	10	5	297	<1	145	456
17596	8	<3	121	<1	<50	2290
17597	8	<3	123	<1	<50	2870
*Std BM15	29	98	931	1	<50	10
17598	21	8	36	<1	<50	133
17599	31	22	58	<1	<50	78
17600	51	13	31	<1	<50	131
17201	13	8	22	<1	<50	27
17202	5	17	32	<1	<50	23
17203	5	<3	25	<1	<50	71
17204	4	<3	6	<1	<50	<3
17205	3	<3	8	<1	<50	<3
17206	14	95	10	<1	<50	6
17207	15	7	34	<1	<50	60
17208	8	10	44	<1	<50	40
17209	7	5	44	<1	<50	34
17210	8	12	59	<1	<50	41
17211	10	16	69	<1	<50	37
17212	13	16	61	<1	<50	49
17213	12	10	54	<1	<50	74
17214	14	11	54	<1	<50	74
17215	11	14	48	<1	<50	46
*SS 17215	10	12	46	<1	<50	42
17216	47	25	69	<1	<50	57
17217	38	3	47	<1	<50	46
17218	152	3	51	<1	<50	43
17219	10	<3	44	<1	<50	133
17220	9	<3	28	<1	<50	178
17221	4	7	11	<1	<50	4
17222	8	15	83	<1	<50	213
17223	42	49	133	<1	<50	181
*Rep 17590	7	15	18	<1	<50	15
*Rep 17223	40	49	128	<1	<50	176
*Std AAL1	150	484	1960	1	80	12
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	50	3

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

660050

A N A L A B S

Our reference : BU017070
Your reference : **128512**
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 2 of 9

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	As	Ni
*Blk BLANK	<2	3	<2	<1	<50	<3
17224	3	<3	23	<1	<50	97
17225	6	8	33	<1	<50	56
17226	7	9	36	<1	<50	49
17227	7	8	35	<1	<50	37
17228	12	7	42	<1	<50	51
17229	5	10	45	<1	<50	46
17230	6	8	34	<1	<50	45
17231	29	39	187	<1	<50	305
17232	9	97	175	<1	<50	235
17233	7	25	449	<1	<50	281
17234	3	9	77	<1	<50	151
17235	10	20	87	<1	<50	74
17236	7	7	155	<1	<50	43
17237	6	4	56	<1	<50	40
17238	11	14	533	<1	<50	13
17239	65	<3	>5000	<1	<50	33
17240	9	<3	>5000	<1	<50	41
*SS 17240	8	<3	>5000	<1	<50	44
*Std BM15	29	89	978	<1	<50	5
17241	170	<3	>5000	<1	<50	40
17242	6	<3	190	<1	<50	<3
17243	33	4	76	<1	<50	42
17244	6	12	43	<1	<50	9
17245	5	7	121	<1	<50	<3
17246	3	9	27	<1	<50	<3
17247	3	12	33	<1	<50	12
17248	34	5	151	<1	<50	1885
17249	6	<3	67	<1	<50	648
17250	179	11	3120	<1	<50	135
17251	26	14	104	<1	<50	12
17252	50	36	60	<1	<50	26
17253	7	14	51	<1	<50	6
17254	36	3	157	<1	<50	4
17255	75	<3	168	<1	65	161
17256	164	<3	472	<1	<50	162
17257	32	7	165	<1	<50	74
17258	59	16	832	<1	<50	246
17259	1145	171	2880	4	245	180
17260	245	58	2050	2	125	4
17261	33	17	657	2	290	5
17262	130	26	1010	1	90	18
17263	33	10	106	<1	<50	6
17264	8	14	30	<1	<50	28
17265	16	5	68	<1	<50	4
*SS 17265	16	8	67	<1	<50	3
17266	6	<3	19	<1	<50	7
*Rep 17227	12	4	37	<1	<50	33
*Rep 17253	7	14	48	<1	<50	4
*Std AAL1	148	448	1990	1	80	9
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	50	3

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

ANALABS

Our reference : BU017070
Your reference : **128512**
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 3 of 9

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	As	Ni
*Blk BLANK	<2	<3	2	<1	<50	<3
17267	6	13	24	<1	<50	13
17268	152	8	1225	<1	<50	<3
17269	171	27	>5000	<1	60	18
17270	13	<3	78	<1	<50	8
17271	15	6	680	<1	95	12
17272	8	43	110	<1	<50	19
17273	38	<3	931	<1	<50	73
17274	36	<3	250	<1	<50	74
17275	54	<3	880	<1	60	79
17276	63	10	50	<1	<50	41
17277	130	9	36	<1	<50	37
17278	307	7	45	<1	<50	27
17279	131	3	30	<1	<50	27
17280	163	20	29	<1	<50	34
17281	212	4	27	<1	<50	39
17282	188	3	25	<1	<50	37
17283	124	6	25	<1	<50	40
17284	90	3	34	<1	<50	41
*Std BM15	30	96	990	<1	<50	7
17285	16	15	83	<1	<50	173
17286	82	<3	44	<1	<50	58
17287	36	<3	64	<1	<50	35
17288	214	4	141	<1	<50	70
17289	132	<3	86	<1	<50	44
17290	43	<3	82	<1	<50	18
*SS 17290	35	<3	80	<1	<50	17
17291	53	<3	31	<1	<50	17
17292	133	12	53	<1	<50	19
17293	142	<3	31	<1	<50	30
17294	115	<3	25	<1	80	35
17295	18	<3	42	<1	<50	18
17296	15	4	36	<1	<50	52
17297	19	11	64	<1	<50	77
17298	38	20	51	<1	<50	50
17299	13	21	51	<1	<50	49
17300	211	3	46	<1	<50	48
*Rep 17287	35	<3	68	<1	<50	34
*Rep 17293	140	<3	31	<1	<50	30
*Std AAL1	146	427	1910	1	80	11
Method	A102	A102	A102	A102	A102	A102
Units	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	3	2	1	50	3

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

G60052

A N A L A B S

Our reference : BU017070
Your reference : 128512
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 4 of 9

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

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	<10					
17581	<10					
17582	<10					
17583	<10					
17584	<10					
17585	<10					
17586	<10					
17587	<10					
17588	<10					
17589	<10					
17590	<10					
*SS 17590	<10					
17591	<10					
17592	<10					
17593	<10					
17594	<10					
17595	<10					
17596	<10					
17597	<10					
*Std BM15	--					
17598	<10					
17599	<10					
17600	13					
17201	<10					
17202	<10					
17203	<10					
17204	<10					
17205	<10					
17206	<10					
17207	<10					
17208	<10					
17209	<10					
17210	<10					
17211	<10					
17212	<10					
17213	<10					
17214	<10					
17215	<10					
*SS 17215	<10					
17216	<10					
17217	<10					
17218	<10					
17219	<10					
17220	<10					
17221	<10					
17222	<10					
17223	<10					
*Rep 17590	<10					
*Rep 17223	<10					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

660053

ANALABS

Our reference : BU017070
Your reference : 128512
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 5 of 9

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

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	< 10					
17224	< 10					
17225	< 10					
17226	< 10					
17227	< 10					
17228	< 10					
17229	< 10					
17230	< 10					
17231	12					
17232	< 10					
17233	< 10					
17234	11					
17235	14					
17236	< 10					
17237	14					
17238	< 10					
17239	< 10					
17240	< 10					
*SS 17240	< 10					
*Std BM15	--					
17241	< 10					
17242	< 10					
17243	< 10					
17244	< 10					
17245	< 10					
17246	< 10					
17247	< 10					
17248	< 10					
17249	< 10					
17250	< 10					
17251	< 10					
17252	< 10					
17253	< 10					
17254	< 10					
17255	< 10					
17256	< 10					
17257	< 10					
17258	< 10					
17259	< 10					
17260	< 10					
17261	< 10					
17262	< 10					
17263	< 10					
17264	< 10					
17265	< 10					
*SS 17265	< 10					
17266	< 10					
*Rep 17227	< 10					
*Rep 17253	< 10					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

660054

ANALABS

Our reference : BU017070
Your reference : **128512**
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 6 of 9

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

ANALYTICAL DATA

Sample	Sb					
*Blk BLANK	<10					
17267	<10					
17268	<10					
17269	<10					
17270	<10					
17271	<10					
17272	<10					
17273	<10					
17274	<10					
17275	<10					
17276	<10					
17277	<10					
17278	<10					
17279	<10					
17280	<10					
17281	<10					
17282	<10					
17283	<10					
17284	<10					
*Std BM15	--					
17285	<10					
17286	<10					
17287	<10					
17288	<10					
17289	<10					
17290	<10					
*SS 17290	<10					
17291	<10					
17292	<10					
17293	11					
17294	11					
17295	<10					
17296	18					
17297	<10					
17298	<10					
17299	<10					
17300	<10					
*Rep 17287	<10					
*Rep 17293	<10					
*Std AAL1	--					
Method	A102					
Units	ppm					
Detection Limit	10					

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

660055

A N A L A B S

Our reference : BU017070
Your reference : 128512
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 7 of 9

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

ANALYTICAL DATA

Sample	Zn					
*Blk BLANK	N.A.					
17581	N.A.					
17582	N.A.					
17583	N.A.					
17584	N.A.					
17585	N.A.					
17586	N.A.					
17587	N.A.					
17588	N.A.					
17589	N.A.					
17590	N.A.					
*SS 17590	N.A.					
17591	N.A.					
17592	N.A.					
17593	N.A.					
17594	N.A.					
17595	N.A.					
17596	N.A.					
17597	N.A.					
17598	N.A.					
17599	N.A.					
*Std 3024	N.A.					
17600	N.A.					
17201	N.A.					
17202	N.A.					
17203	N.A.					
17204	N.A.					
*Std MGS3	N.A.					
17205	N.A.					
17206	N.A.					
17207	N.A.					
17208	N.A.					
17209	N.A.					
17210	N.A.					
17211	N.A.					
17212	N.A.					
17213	N.A.					
17214	N.A.					
17215	N.A.					
*SS 17215	N.A.					
17216	N.A.					
17217	N.A.					
17218	N.A.					
17219	N.A.					
17220	N.A.					
17221	N.A.					
17222	N.A.					
*Rep 17215	N.A.					
*Rep 17220	N.A.					
*Std MP1A	N.A.					
Method	A103					
Units	%					
Detection Limit	0.01					

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

660056

ANALABS

Our reference : BU017070
Your reference : 128512
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 8 of 9

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

ANALYTICAL DATA

Sample	Zn					
*Blk BLANK	N.A.					
17223	N.A.					
*Std 3024	N.A.					
17224	N.A.					
17225	N.A.					
17226	N.A.					
17227	N.A.					
17228	N.A.					
17229	N.A.					
17230	N.A.					
17231	N.A.					
17232	N.A.					
*Std MGS3	N.A.					
17233	N.A.					
17234	N.A.					
17235	N.A.					
17236	N.A.					
17237	N.A.					
17238	N.A.					
17239	1.74					
17240	0.63					
*SS 17240	N.A.					
17241	4.10					
17242	N.A.					
17243	N.A.					
17244	N.A.					
17245	N.A.					
17246	N.A.					
17247	N.A.					
17248	N.A.					
17249	N.A.					
17250	N.A.					
17251	N.A.					
17252	N.A.					
17253	N.A.					
17254	N.A.					
17255	N.A.					
17256	N.A.					
17257	N.A.					
17258	N.A.					
17259	N.A.					
17260	N.A.					
17261	N.A.					
17262	N.A.					
17263	N.A.					
17264	N.A.					
17265	N.A.					
*Rep 17244	N.A.					
*Rep 17260	N.A.					
*Std MP1A	N.A.					
Method	A103					
Units	%					
Detection Limit	0.01					

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

660057

A N A L A B S

Our reference : BU017070
Your reference : 128512
Project code : Rock Samples
Report date : 18/11/99
Report status : Final
Page : 9 of 9

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

ANALYTICAL DATA

Sample	Zn					
*Blk BLANK	N.A.					
*SS 17265	N.A.					
17266	N.A.					
17267	N.A.					
17268	N.A.					
17269	0.83					
17270	N.A.					
17271	N.A.					
*Std 3024	N.A.					
17272	N.A.					
17273	N.A.					
17274	N.A.					
17275	N.A.					
17276	N.A.					
17277	N.A.					
17278	N.A.					
17279	N.A.					
17280	N.A.					
17281	N.A.					
17282	N.A.					
17283	N.A.					
17284	N.A.					
17285	N.A.					
17286	N.A.					
17287	N.A.					
17288	N.A.					
17289	N.A.					
17290	N.A.					
*Std MGS3	N.A.					
*SS 17290	N.A.					
17291	N.A.					
17292	N.A.					
17293	N.A.					
17294	N.A.					
17295	N.A.					
17296	N.A.					
17297	N.A.					
17298	N.A.					
17299	N.A.					
17300	N.A.					
*Rep 17270	N.A.					
*Rep 17293	N.A.					
*Std MP1A	N.A.					
Method	A103					
Units	%					
Detection Limit	0.01					

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

E.L. 2/96

E.L. 22/97

123M/47

355000 mE

356000 mE

357000 mE

5361000 mN

5360000 mN

5359000 mN

TLC011 TLC001 TLC010 TLC009 TLC014 TLC002 TLC012 TLC013 TLC006 TLC007 TLC003 TLC008 TLC004 TLC005

TH4 TH5 TH6

SY014 SY010

TENTH LEGION FAULT ZONE

SKYNANCE

SILVER STREAM

DAVERNS

Zone of moderate serpentinisation +/- sulphide largely under Cbab

Road

Trial Harbour

LEGEND

QUATERNARY

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

SILURIAN

- Sa — Greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone.
- Ss — Grey/cream fine to medium grained quartz sandstone, lithic quartz-sandstone & minor conglomerate. Crinoid trace fossils locally.
- Scc — 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 (stippled).
- Sm — Calcareous thin bedded siltstone (Silurian?)
- Su — Undifferentiated sediments.

ORDOVICIAN

- Og — 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)

- Ctsl — Siltstone with minor chert, shale and greywacke interbeds.
- Ctfg — Fine grained greywacke/hornfels with minor siltstone.
- Ctmg — Medium grained greywacke/hornfels with minor siltstone.
- Ctcg — Coarse grained greywacke/hornfels.
- Ctlg — Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz.
- Ctc — Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.
- Cts — Undifferentiated Cambrian sediments, mostly greywacke with minor lithic-wacke and conglomerate.

MAFIC ROCKS (McGivor Hill Complex)

- Cbx — Undifferentiated serpentinised gabbro and/or basalt.
- Cba — Undifferentiated basalt.
- Cbab — Massive to pillowed, aphyric basalt flows with interbedded breccia flows.
- Cbap — Pillowed aphyric basalt flows with interbedded breccia flows.
- Cbau — Undifferentiated gabbro.
- Cbagf — Fine grained gabbro.
- Cbagm — Medium grained gabbro.
- Cbagv — Coarse grained gabbro.
- Cbb — Porphyritic (pseudomorphed clinoenstatite and/or orthopyroxene, chromite) basalt, commonly with interbedded pillow and breccia flows.

ULTRAMAFIC ROCKS (McGivor Hill Complex?)

- Csm — Undifferentiated Ultramafic (+/- mafic) and massive serpentinite.
- Csag — Mafic gabbro, equigranular medium to coarse grained.
- Csag — Mafic gabbro, spinifex textured.
- Csf — Highly feldspathic, medium/coarse grained gabbro.
- Csd — Serpentinized equigranular ultramafic/dunite?
- Csc — Pseudo-conglomeratic textured ultramafic.
- Csus — Spinifex textured ultramafic dunite?

PRECAMBRIAN (Dornah Formation)

- Pos — Shale (black).
- Posl — Siltstone and laminated siltstone.
- Poss — Sandstone.
- Posq — Quartz sandstone.
- Pou — Undifferentiated sediments.

DEVONIAN GRANITES

- Dglf — White granite/leucogranite.
- Dgpu — Red granite.
- Dgpf — Red granite - porphyritic.
- Dgq — Quartz-rich granitoid (greisen?).
- Dma — Alpite (/leucogranite).

5 cm

LITHOLOGY/FEATURES

- Geolocial boundary - accurate
- Geolocial boundary - approximate
- Geolocial boundary - inferred
- Outcrop.
- Subcrop/float.

STRUCTURE

- Tbr — Major Fault Zone - Highly faulted & deformed rocks with zones of cataclasyite/fault breccia and tectonic melange, comprising highly altered blocks and large clasts of variable lithologies (including Pou, Cts, Csm and Su, major lithologies noted).
- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
- 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

ALTERATION AND MINERALISATION (>= moderate intensity shown)

- Dcs — Cream coloured calc-silicate veining & pervasive alteration.
- Dps — Pervasive silica-serpentinite alteration, +/- disseminated magnetite.
- Dpm — Pervasive silica with minor disseminated magnetite.
- Veined and/or semi-pervasive/ replacement silica - pyrite alteration.
- Massive ironstone/magnetite.
- S — Veined (>=m) and/or pervasive serpentinisation.
- Cm — Magnetite, veined and disseminated.
- T — Tourmaline alteration.

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

RESPONSIBILITY DIAGRAM

MRT — Allegiance Mining NL R. Reid, 1999 — MRT

MRT Digital Data 1:25,000 Trial Harbour and Heemskirk

SCALE : 1:5000

0 50 100 200 m

660058

Allegiance Mining N.L.

TENTH LEGION

GEOLOGICAL INTERPRETATION

COMPILED : R. Reid
DATE : Nov., 1999
DRAWN : G. Bennett
REVISIONS :
FILE : TL Geology 5000.WOR

Newnham Exploration and Mining Services

Plate No. 1.

E.L. 2/96

E.L. 22/97

123M/47

355000 mE
356000 mE
357000 mE
5361000 mN
5360000 mN
5359000 mN

TLC001
TLC002
TLC003
TLC004
TLC005
TLC006
TLC007
TLC008
TLC009
TLC010
TLC011
TLC012
TLC013
TH4
TH5
TH6
SY010
SY014
DAVERNS P
LOCKYNANCE
SILVER STREAM
Alluvial Cover over Pou
Road
Trial
Harbour

LEGEND

QUATERNARY

- Qha — Alluvial gravels.
- Qhh — Lacustrine clays & sands locally including re-sedimented ironstone. (Henty Surface - related?)
- Inferred distribution (eg facies change or resedimented ironstone using aeromag and RGC mapping)
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SILURIAN

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- Calcareous thin bedded siltstone (Silurian?)
- Su — Undifferentiated sediments.

ORDOVICIAN

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- Cbagc — Coarse grained gabbro.
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- Cbag — Mafic gabbro, spinifex textured.
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- Csus — Spinifex textured ultramafic dunite?

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- Posl — Siltstone and laminated siltstone.
- Poss — Sandstone.
- Posq — Quartz sandstone.
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- Dgif — White granite/leucogranite.
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- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
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- 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

ABBREVIATIONS

act	actinolite	goeth	goethite	sil-serp	silica-serpentinite
altn	alteration	hem	hematite	slst	siltstone
aspy	arsenopyrite	lam	laminated	sph	sphalerite
ax	axinite	mag	magnetite	sst	sandstone
bdd	bedded	mg	medium grained	tour	tourmaline
brd	banded	msv	massive	vn	vein
calc-sil	calc-silicate	musc	muscovite	vnd	veined
cg	coarse grained	perv	pervasive	wed	weathered
ch	chlorite	py	pyrite		
cpy	chalcopyrite	pyrrh	pyrrhotite		
diss	disseminated	q	quartz		
fg	fine grained	ser	sericite		
fol	foliation	serp	serpentinisation		
fracs	fracs	sh	shale		
gal	galena	sil	silicification		

ALTERATION CODES

tr	trace	m	moderate 10 to 50%
w	weak 0 to 10%	s	strong 50+%

RESPONSIBILITY DIAGRAM

MRT / MRT / Allegiance Mining NL R. Reid, 1999 / MRT

MRT Digital Data 1:25,000 Trial Harbour and Heemskirk.

SCALE : 1:5000

0 25 50 100 m

Allegiance Mining N.L.

TENTH LEGION GEOLOGICAL FACTUAL/OUTCROP MAP

Newnham Exploration and Mining Services

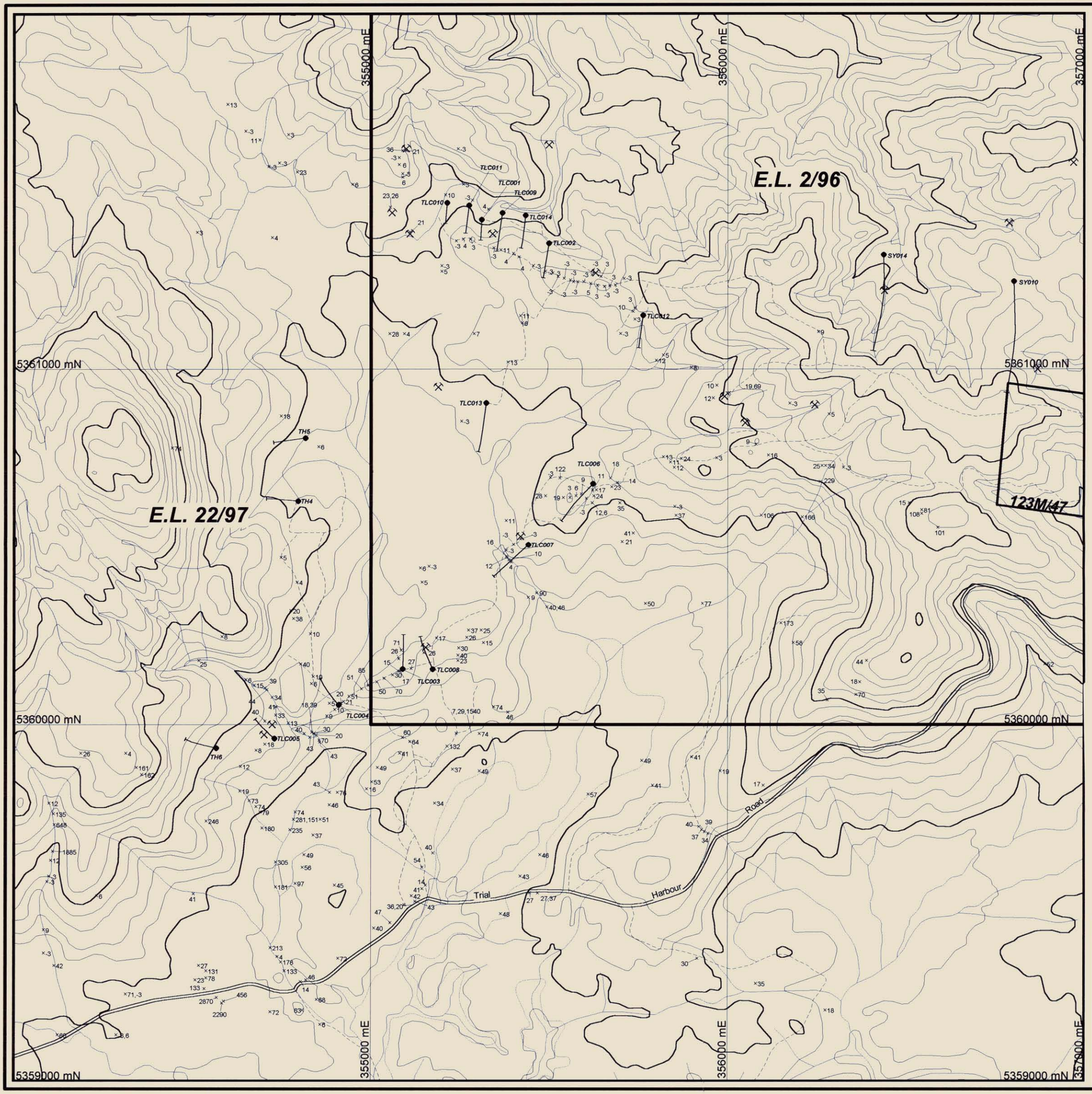
COMPILED : R. Reid
DATE : Nov., 1999
DRAWN : G.M.Bennett
REVISIONS :
FILE : TL Outcrop 5000.WOR

Plate No. 2.

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mining
EL22/1997
Newnham, L.A.

660059



660060

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10000

0 100 200 400 m

Allegiance Mining N.L.

TENTH LEGION

ROCK GEOCHEMISTRY

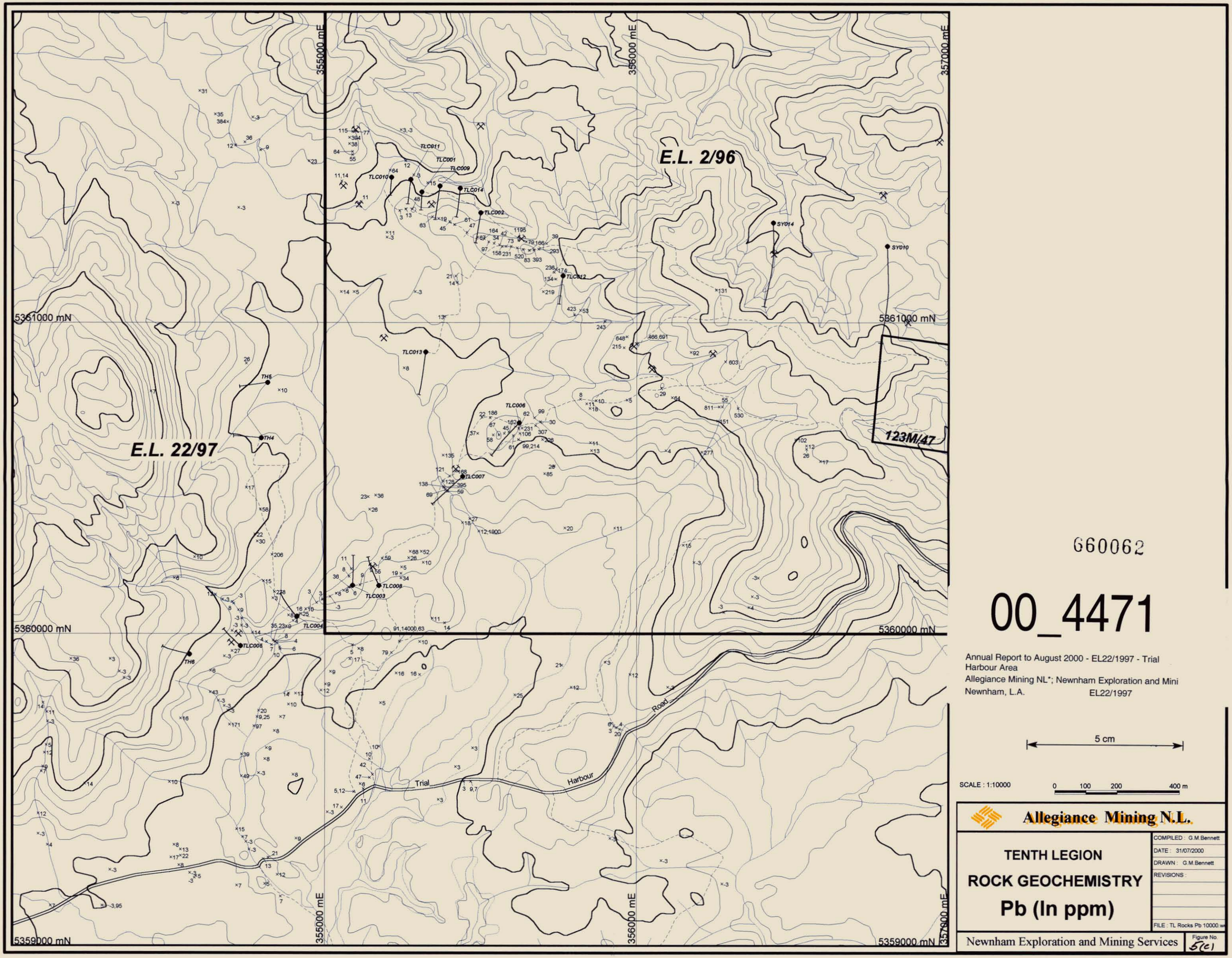
Ni (ln ppm)

COMPILED : G.M.Bennett
DATE : 31/07/2000
DRAWN : G.M.Bennett
REVISIONS :
FILE : TL Rocks Ni 10000.wo

Newnham Exploration and Mining Services

Figure No. 5(a)

355000 mE
356000 mE
357000 mE
5361000 mN
5360000 mN
5359000 mN
E.L. 22/97
E.L. 2/96
123M/47
TLC010
TLC011
TLC001
TLC009
TLC014
TLC002
TLC012
TLC013
TLC006
TLC007
TLC008
TLC003
TLC004
TLC005
TH4
TH5
TH6
SY014
SY010
Trial Harbour Road
660061
00_4471
Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997
5 cm
SCALE : 1:10000
0 100 200 400 m
Allegiance Mining N.L.
TENTH LEGION
ROCK GEOCHEMISTRY
Cu (ln ppm)
COMPILED : G.M.Bennett
DATE : 31/07/2000
DRAWN : G.M.Bennett
REVISIONS :
FILE : TL Rocks Cu 10000.w
Newnham Exploration and Mining Services
Figure No. 56



660062

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10000

0 100 200 400 m

Allegiance Mining N.L.

TENTH LEGION

ROCK GEOCHEMISTRY

Pb (ln ppm)

COMPILED : G.M.Bennett
DATE : 31/07/2000
DRAWN : G.M.Bennett
REVISIONS :
FILE : TL Rocks Pb 10000.w

Newnham Exploration and Mining Services

Figure No. 5(c)

660063

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10000 0 100 200 400 m

Allegiance Mining N.L.

TENTH LEGION

ROCK GEOCHEMISTRY

Zn (ln ppm)

COMPILED : G.M.Bennett
DATE : 31/07/2000
DRAWN : G.M.Bennett
REVISIONS :
FILE : TL Rocks Zn 10000.wo

Newnham Exploration and Mining Services

Figure No. 5(d)

APPENDIX 2

EVALUATION OF PREVIOUS DRILLING

TENTH LEGION AREA

ALLEGIANCE MINING N.L.

REVIEW OF DRILLING AT TENTH LEGION

MARCH 2000

Prepared by

MICHAEL V. McKEOWN

MEngSci (Ballarat), Grad Dip Mining (Ballarat)
BSc (Melbourne), Ass Dip Ag Bus Man (Launceston)
Fellow AusIMM

for

McKEOWN MINING PTY LTD
RIDGLEY, TASMANIA
(phone 03 6435 7560)

on behalf of

ALLEGIANCE MINING N.L.

ABBREVIATIONS

Textual abbreviations

660066

CRAE	CRA Exploration Pty Ltd
MRT	Mineral Resources Tasmania
RGCE	RGC Exploration Pty Ltd

Scientific abbreviations

Ag	silver
Au	gold
As	arsenic
Cu	copper
Ni	nickel
Pb	lead
Sn	tin
W	tungsten
Zn	zinc

660067

CONTENTS

TABLES

FIGURES

all figures appear at the end of the text before the appendices

1 INTRODUCTION

The Tenth Legion area lies 5 kilometres west of Zeehan, about a kilometre north of the Avebury prospect. Access to the area is by way of a track leading northwards of the Zeehan to Trial Harbour road.

The possibility of the presence of nickel in the known magnetite occurrences at the Tenth Legion was suggested after the discovery of significant nickel mineralisation associated with magnetite at the Avebury prospect (McKeown, 1998). Consequently, a decision was made to undertake a review of the logging of the existing drill core from the Tenth Legion and to split and assay the core for nickel where necessary (Newnham, 1999).

This report presents the results of the logging review and assaying.

2 RECENT HISTORY

The occurrence of magnetite at Tenth Legion has been known for many years. In the early 1970s, the area came to the notice of IMI, who had earlier held the Savage River iron leases, as a potential source of iron ore. Tenth Legion was held under five small Mining Leases which, at the time, were surrounded by an Exploration Licence held by RGC Exploration Pty Ltd (RGCE). The Mining Leases were numbered 50M/75 to 54M/75. During 1981, CRA Exploration Pty Ltd (CRAE), in joint venture with IMI, undertook exploration on the five leases, including the drilling of fourteen diamond drill holes, numbered TLC1 to TLC14 (Figure 1).

3 THE TENTH LEGION GRID

CRAE established a cut grid over the five leases, described by Broadbent (1981):

> "The boundaries of the leases were cleared and surveyed to Mines Department regulations by licensed surveyor Mr K. Michell of Devonport. Wherever possible the cut lease boundaries were incorporated into the grid. The north western corner of lease 53M/75 was assigned the grid co-ordinates 4990 North, 5000 East. Grids lines were made parallel to the North-south trending boundary lines, an AMG bearing of eight degrees, forty three minutes ... and spaced a

nominal 100 metres apart. The lines were set and turned with a WILD T16 theodolite, and kept on course with improvised line poles."

In this report, all co-ordinates and bearings are expressed using this local grid.

An approximate conversion to AMG can be obtained using the formulae:

AMG north = 5,359,600 + (local grid north - 3,105)*Cos8°43"

AMG east = 255,250 + (local grid east - 5,445)*Cos8°43"

This conversion has been estimated by reference to existing plans and is not based on field surveys.

4 LOCAL GEOLOGY

The rocks at Tenth Legion have been metasomatically metamorphosed by the nearby granite. The oldest rocks belong to the Oonah Formation, originally a sedimentary rock sequence, including sandstones, siltstones, shales, limestones and dolomites. These rocks were later intruded by the Cambrian ultramafic complex which outcrops in the south-eastern corner of the area. All these pre-existing rocks were intruded by the Devonian Heemskirk granite which outcrops just to the west of Tenth Legion.

The mega-structure of the area is dominated by two features, both attributable to Tabberabberan events: an anticline and a fault, the Tenth Legion fault. The anticlinal axis strikes just south of east and appears to plunge steeply to the east; the rocks on the limbs of the anticline dip steeply to the north on the northern limb, and to the south-west on the southern limb. The Tenth Legion fault cuts across the north-eastern corner of the area and separates the mineralised and altered rocks to the south from relatively unaltered Oonah Formation rocks to the north.

A stratigraphic succession has been derived, based on the lithological and structural relationships just described and the interpretation of the diamond drill holes (Table 1).

TABLE 1

TENTH LEGION AREA
STRATIGRAPHIC SUCCESSION IN
ALTERED SEDIMENTARY ROCK SEQUENCE

rock type	original vertical thickness	
siltstone, shale and quartzite	50m+	
calc-silicate rock +/- magnetite	30m to 70m	
siltstone, shale and quartzite	10m to 20m	TLC1, TLC2,
calc-silicate rock +/- magnetite	20m to 50m	TLC9, TLC10,
sitstone, shale and quartzite	0m to 20m	TLC11, TLC14
calc-silicate rock +/- magnetite	0m to 40m	
quartz sericite rock	30m to 40m	
calc-silcate rock	20m to 30m	
quartz sericite rock	70m to 90m	
calc-silicate roçk +/- magnetite	0m to 20m	
quartz-sericite rock +/- magnetite	20m to 80m	
calc-silicate rock +/- magnetite	40m to 60m	TLC6, TLC13
limestone	50m to 70m	
limestone and calc-silicate rock +/- magnetite	70m to 120m	TLC3, TLC4, TLC5,TLC7, TLC8
calc-silicate rock	100m+	

note: TLC12 was drilled north of the Tenth Legion fault

The sedimentary rocks have been metamorphosed, and metasomatically altered during the intrusion of the granite. Metamorphism has altered the sandstones to quartzites, and crystallised parts of the dolomites. The most obvious effect of the metasomatism is the presence of massive to semi-massive magnetite which has replaced parts of the calcareous

rocks. Other alterations include serpentinisation of the calcareous rocks, calc-silicate alteration of siltsones, and calcareous siltstones, and sericitisation of quartzites. Several sulphide minerals are also known in the area including pyrrhotite and pyrite, chalcopyrite, and traces of cassiterite have been detected.

Of the base metal sulphides, the most common is sphalerite and parts of the area have been subject to prospecting for zinc in the past. As has already been mentioned (2 RECENT HISTORY), the magnetite in the area has been considered as a source of iron ore. The proximity of the nearby Heemskirk granite to the calcareous rocks at Tenth Legion suggests that significant tin mineralisation may occur.

Petrological examination of several specimens of drill core supports the view that the rocks at Tenth Legion were formed by the metasomatic alteration of calcareous sedimentary rocks (Fander, 1999, Appendix 5). Earlier petrogrpahic examination suggested that some of the altered rocks may have had ultramafic origins (Broadbent, 1981), however, such an origin now seems less likley (see 8 CONCLUSIONS).

5 DIAMOND DRILLING

Two programs of diamond drilling have been undertaken at Tenth Legion: a two hole program by the Tasmania Department of Mines, numbered MD1 and MD2, and a fourteen hole program by CRAE, numbered TLC1 to TLC14 (Figure 1). Core from the all but TLC1 of the CRAE holes is held at the Mineral Resources Tasmania core store at Mornington Rd, Mornington.

Logs of the holes logged by CRAE geologists are appended (Appendix 4).

6 REVIEW OF DIAMOND DRILLING

6.1 INTRODUCTION

Core from holes TLC2 and TLC10 was examined and re-logged in some detail (Appendix 1). Not surprisingly, the re-logging did not differ significantly from the original logging by CRAE staff. Subsequently, core from all other holes, except TLC1, was examined and re-logged in summary form (Appendix 2). Wherever practical, down-hole intervals in the re-logs were matched to down-hole intervals in the CRAE logs.

CRAE had split, by sawing, the mineralised and altered parts of the core for assaying for copper, lead, zinc, silver, tin, tungsten, arsenic and gold. Subsequent to re-logging, parts of the core were quartered by sawing and 295 samples were submitted for nickel analysis (Appendix 6).

For this review, the CRAE assay data, the new nickel assays, the drillhole collar co-ordinates, drillhole dips and bearings, and a brief rock code for each down-hole lithological interval (Appendix 3) were entered into spreadsheets. This database was used as the basis for the review of metal occurrences which follows and for the preparation of the drillhole sections (Figures 2 to 15).

6.2 THE ASSAY RESULTS

A summary of some statistics of the assay results is presented in Table 2.

TABLE 2

TENTH LEGION DIAMOND DRILLING
SUMMARY OF ASSAY RESULTS

element	no of samples	maximum value ppm	no of samples >1000ppm	no of samples >10000ppm
As	185	2300	1	0
Cu	1107	2750	12	0
Ni	295	395	0	0
Pb	1107	16000	10	1
Sn	1103	33000	33	1
W	1102	620	0	0
Zn	1107	141000	232	62

element	no of samples	maximum value ppm	no of samples >5ppm
Ag	1106	20	3

element	no of samples	maximum value ppm	no of samples >0.1ppm	no of samples >1ppm
Au	185	1.34	6	1

The re-assaying for nickel did not reveal any significant nickel occurrences. The altered rocks at Tenth Legion, including the magnetite bodies, all appear to be altered sedimentary rocks rather than altered ultramafic rocks.

There is extensive calc-silicate alteration in the Tenth Legion area and many skarnised rocks, so it is surprising that the only metals which are present in anomalous amounts are tin and zinc, but only zinc is present in significant amounts.

The only significant tin assay is 3.3% Sn in TLC1 from 28.5m to 31.1m in a zone of calc-silicate rock with magnetite. It is difficult to estimate the significance of this single anomalous assay.

Zinc levels range up to 14.1% Zn and there are 232 assay intervals where the assay exceeds 0.1% Zn. The anomalous zinc occurs in two areas: one in the north in holes TLC11, TLC10, TLC1, TLC9, TLC14 and TLC2; one in the south-west in holes TLC4, TLC3 and TLC8 (Figure 1). The zinc assays which exceed 0.1% Zn have a total down-hole length of 290.6m at a length weighted average grade of 0.73% Zn. Above 1% Zn, the total down-hole length is 55.4m and the length weighted average grade is 2.67% Zn.

The highest gold assay returned was 1.34ppm from TLC6 12.2m to 13.4m. The four highest gold assays were from four widely separated holes - TLC5, TLC6, TLC7 and TLC9 - and from four different rock types - calc-silicate rock, limestone with magnetite, massive magnetite, and siltstone respectively. There appears to be no correlation between the samples beyond their occurrence in a very altered rock sequence.

7 ZINC MINERALISATION

In the northern group of holes with anomalous zinc it is not possible to correlate the high zinc zones. The holes pass through a rock sequence which can be correlated from hole to hole using shale/siltstone bands as markers but, on this basis, the locations of the high zinc values are not stratigraphically consistent from hole to hole.

In the southern three holes, with similarly anomalous zinc content, correlation is possible. Holes TLC3 and TLC8 both intersected anomalous zinc over a broad zone which correlates spatially (Figures 4 and 9) and lithologically between the holes:

TLC3	9.0m to 75.6m	66.2m down-hole length at 1.33% Zn
TLC8	15.0m to 85.7m	70.7m down-hole length at 0.67% Zn

TLC3 and TLC8 are about 100 metres apart.

The anomalous zone in TLC4 was narrower:

TLC4	54.9m to 56.9m	2.0m down-hole length at 1.44% Zn

The intersection in TLC4 occurs about 200 metres to the south-west of TLC3 and this intersection could represent the tail end of the mineralised lens within the calcareous sequence.

Both TLC3 and TLC8 included higher grade zones, which are not readily correlatable:

TLC3	15.5m to 26.0m	7.9m down-hole length at 5.08% Zn
TLC8	53.6m to 70.1m	6.5m down-hole length at 2.66% Zn

In both holes, the zinc mineralisation occurs in a sequence of limestones and dolomites altered to calc-silicate rocks with varying magnetite content ranging from no magnetite to massive magnetite. The proportion of zinc present does not appear to be strictly related to the proportion of magnetite present but the two highest zinc grades in TLC3 were associated with high magnetite contents.

It appears that the rocks in the area near these two holes dip steeply to the south-east, so the horizontal thickness of the two anomalous zones is about 50 metres. The holes are collared about 100 metres apart and if the anomalous zone persisted over a vertical height of 100 metres. At a density of 3 tonnes per cubic metre, such a block represents 1,500,000 tonnes of mineralisation at a grade of about 1% Zn. The intersections in TLC3 and TLC8 suggest that there would be higher grade zones within this block.

8 CONCLUSIONS

The Tenth Legion mineralisation appears to be the result of metasomatic alteration of calcareous sedimentary rocks during the intrusion of a granite. This view is supported by:

- the presence of calc-silicate alteration in many of the drill holes,

- the presence of magnetite but no reported chromite,
- the significant tin content of some of the rocks,
- the lack of any significant nickel content in any of the rocks despite the presence of pyrhhotite in places,
- the presence of limestone and dolomite,
- the proximity of the Heemskirk granite.

Two zones of calc-silicate rocks with magnetite and significant zinc have been identified. The southern zone appears to have some stratigraphic and spatial continuity and is a potential target for the discovery of a zinc resource. Given Allegiance Mining's current tenure over other zinc tenements near Zeehan, drilling to test the possibility of the existence of a resource at Tenth Legion is recommended.

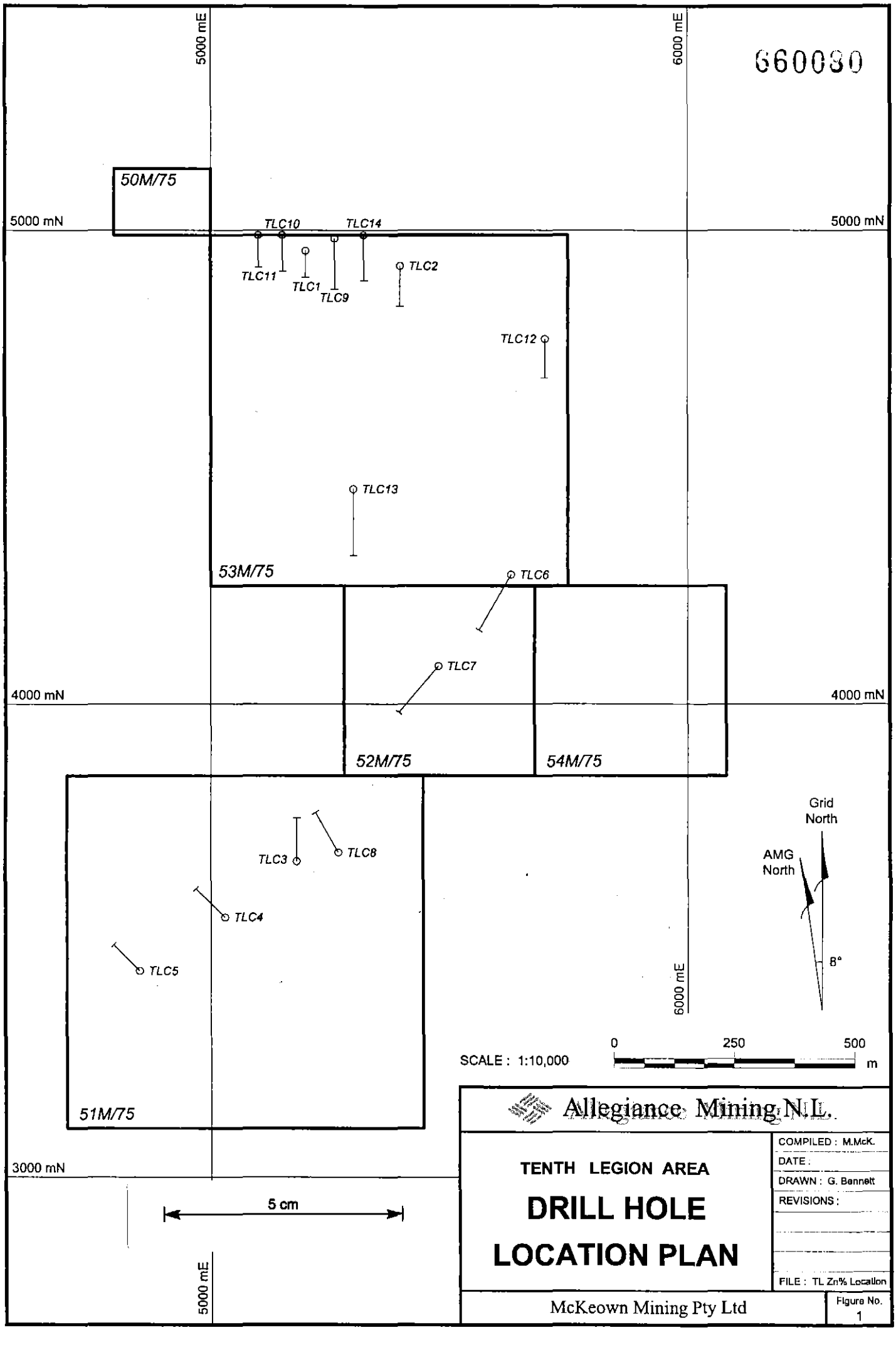
References

Broadbent, G., 1981. Tenth Legion prospect (IMI joint venture) interim report November 1980 - August 1981, 14th August 1981. CRA Exploration Pty Ltd.

Fander, H.W., 1999. Report CMS99/10/8, 18 October 1999. Central Mineralogical Services.

McKeown, M.V., 1998. Allegiance Mining N.L. - Zeehan project - A new view of the Zeehan mineral field, May 1998. McKeown Mining Pty Ltd.

Newnham, L.A., 1999. Tenth Legion drill core. Memo from L.A. Newnham, 3 September 1999. Newnham Exploration and Mining Services.


660030
5000 mE
6000 mE
50M/75
5000 mN
TLC10
TLC14
TLC11
TLC1
TLC9
TLC2
TLC12
TLC13
53M/75
TLC6
TLC7
4000 mN
52M/75
54M/75
TLC3
TLC8
TLC4
TLC5
51M/75
3000 mN
Grid North
AMG North
8°
SCALE : 1:10,000
0
250
500
m
5 cm
Allegiance Mining N.L.
TENTH LEGION AREA
DRILL HOLE LOCATION PLAN
COMPILED : M.McK.
DATE :
DRAWN : G. Bennett
REVISIONS :
FILE : TL Zn% Location
McKeown Mining Pty Ltd
Figure No. 1

Appendix 2

Summary logs of holes TLC2 to TLC34

hid	from	to	rocktype	from	to	Zn %	Ni ppm	Cu ppm	Pb ppm	Ag ppm	Sn ppm	W ppm	As ppm	Au ppm
LC4	0.0	4.0	not cored											
LC4	4.0	24.4	altered calc-silicate rock	4.0	9.5	0.02		27	23	<1	8	55		
				9.5	14.5	0.01		38	9	<1	6	40		
				14.5	19.5	0.01		26	10	<1	4	50		
				19.5	24.4	0.05		130	14	1	<4	140		
LC4	24.4	32.6	altered calc-silicate rock and minor magnetite; trace pyrite	24.4	26.0	0.02		5	25	x	30	x		
				26.0	26.6	0.02		5	15	x	3	x		
				26.6	26.9	0.03		5	20	0.5	25	x		
				26.9	27.2	0.01		5	20	x	6	x		
				27.2	27.8	0.02		5	20	x	7	x		
				27.8	28.4	0.01		x	10	x	7	x		
				28.4	29.6	0.02		x	15	x	10	x		0.008
				29.6	31.2	0.02		x	15	x	10	x		
				31.2	32.6	0.07		25	30	x	15	x		
LC4	32.6	52.9	altered calc-silicate rock; trace pyrite	32.6	34.1	0.01		10	20	x	10	x		x
				34.1	35.1	0.01		5	45	x	10	x		
				35.1	40.1	0.02		160	9	1	4	165		
				40.1	44.0	0.01		60	5	<1	6	80		
				44.0	47.9	0.02		63	14	1	<4	60		
				47.9	50.7	0.02		15	40	x	35	10		
				50.7	52.9	0.01		5	20	x	10	x		
LC4	52.9	57.7	skarn and abundant magnetite; sparse iron sulphides	52.9	53.5	0.04		160	25	x	x	x		x
				53.5	54.9	0.08		50	40	0.5	15	x		
				54.9	55.4	1.30		180	90	0.5	15	15		
				55.4	56.1	2.40	54	75	90	x	15	x		
				56.1	56.9	0.69	115	450	40	x	15	x		x
				56.9	57.7	0.17		50	30	x	35	x		
LC4	57.7	73.0	altered limestone and minor magnetite, trace sphalerite, trace pyrrhotite	57.7	59.1	0.06		65	35	x	6	x		
				59.1	59.6	0.01		35	20	x	x	x		
				59.6	61.0	0.02		5	35	x	4	x		x
				61.0	61.4	0.01		15	25	x	x	x		

hid	from	to	rocktype	from	to	Zn %	Ni ppm	Cu ppm	Pb ppm	Ag ppm	Sn ppm	W ppm	As ppm	Au ppm
				61.4	62.3	0.01		5	40	x	7	x		
				62.3	63.2	0.01		x	25	x	6	x		
				63.2	63.8	0.01		x	20	x	4	x		x
				63.8	64.5	0.01		x	30	x	4	x		
				64.5	65.4	0.04		5	25	x	8	x		
				65.4	66.1	0.35		100	30	x	25	x		
				66.1	67.2	0.03		60	15	x	25	x		x
				67.2	67.6	0.01		5	10	x	x	x		
				67.6	68.0	0.06		35	650	1	25	10		
				68.0	68.9	0.18	30	90	225	1	50	x		
				68.9	69.6	0.03	120	10	85	x	25	x		0.008
				69.6	70.1	0.04	78	15	115	x	7	x		
				70.1	71.7	0.06	28	20	80	x	7	x		
				71.7	73.0	0.06	26	5	90	x	60	x		
LC4	73.0	80.9	massive to semi-massive magnetite and serpentine; trace sphalerite	73.0	73.4	0.05	x	5	45	x	40	x		x
				73.4	75.1	0.06	44	30	90	x	60	x		
				75.1	76.2	0.04	60	60	1000	5	140	x		
				76.2	77.5	0.05	155	75	700	5	140	x		
				77.5	78.3	0.06	140	25	155	x	65	x		x
				78.3	78.9	0.02	46	35	40	x	50	x		
				78.9	79.4	0.02	x	x	50	x	30	x		
				79.4	80.2	0.04	x	10	95	x	55	x		
				80.2	80.9	0.95	32	235	620	4	120	25		0.025
LC4	80.9	87.3	serpentinised limestone; trace pyrite	80.9	82.3	0.02	x	5	50	0.5	60	20		
				82.3	83.9	0.05		x	65	x	x	x		
				83.9	85.5	0.02		x	50	x	20	x		
				85.5	87.3	0.05		x	40	x	5	x		0.017
LC4	87.3	92.2	altered calc-silicate rock; trace sphalerite, trace pyrite	87.3	88.5	0.01		5	30	x	15	x		
				88.5	89.9	0.02		5	30	x	25	x		
				89.9	91.3	0.25	x	35	50	x	20	x		
				91.3	92.2	0.03		260	40	x	15	x		0.008
LC4	92.2	113.0	altered limestone and minor magnetite; trace	92.2	94.1	0.08		35	40	x	20	x		

hid	from	to	rocktype	from	to	Zn %	Ni ppm	Cu ppm	Pb ppm	Ag ppm	Sn ppm	W ppm	As ppm	Au ppm
			sphalerite, trace iron sulphides	94.1	95.0	0.01		5	30	x	15	x		
				95.0	95.4	0.01		5	45	x	x	x		
				95.4	96.5	0.01		20	45	x	10	20		0.017
				96.5	98.0	0.02		20	50	x	7	x		
				98.0	99.8	0.03	98	15	50	x	30	x		
				99.8	101.3	0.42	44	165	130	0.5	70	30		
				101.3	102.7	0.04	x	25	40	0.5	40	x		0.05
				102.7	104.5	0.01		x	35	x	15	x		
				104.5	106.2	0.02		10	40	x	15	x		
				106.2	107.4	0.01		x	30	x	15	x		
				107.4	108.9	0.02		5	40	x	15	x		0.017
				108.9	110.3	0.01		20	35	x	35	x		
				110.3	110.8	0.01		5	45	x	30	x		
				110.8	112.1	0.01		15	35	x	10	x		
				112.1	113.0	0.01		35	30	x	55	x		0.025
LC4	113.0	134.0	altered calc-silicate rock / skarn; trace	113.0	113.6	0.22		215	50	x	45	40		
			sphalerite, sparse iron sulphides	113.6	114.3	0.04	46	10	55	0.5	310	x		
				114.3	115.3	0.08		105	35	x	170	x		
				115.3	116.2	0.35		125	190	2	230	15		0.008
				116.2	117.0	0.02		15	40	x	35	x		
				117.0	117.7	0.02		20	30	x	130	x		
				117.7	119.0	0.01		15	30	x	10	x		
				119.0	119.8	0.07		5	20	x	130	x		x
				119.8	120.9	0.07		65	130	1.5	290	10		
				120.9	121.8	0.02		10	35	0.5	25	x		
				121.8	123.1	0.10		25	30	0.5	120	x		
				123.1	125.0	0.02		15	10	x	30	x		
				125.0	126.8	0.02		30	15	x	40	x		
				126.8	129.0	0.01		60	10	x	25	x		x
				129.0	130.3	0.02		25	20	x	30	200		
				130.3	131.0	0.19		65	20	x	95	15		
				131.0	132.4	0.01		90	15	x	30	x		
				132.4	134.0	0.01		85	10	x	25	x		x

ND OF HOLE AT 134.0m

hid	from	to	rocktype	from	to	Zn %	Ni ppm	Cu ppm	Pb ppm	Ag ppm	Sn ppm	W ppm	As ppm	Au ppm
LC5	0.0	3.0	not cored											
LC5	3.0	70.3	altered calc-silicate rock; trace sphalerite, trace iron sulphides	3.0	5.2	0.03		5	45	1	140	x		
				5.2	5.4	0.29		10	745	0.5	140	15		
				5.4	7.4	0.11		15	175	1	45	x		
				7.4	8.2	0.05		15	80	2	210	x		
				8.2	9.6	0.12		10	215	0.5	540	x		
				9.6	10.7	0.02		90	35	x	45	x		
				10.7	11.7	0.01		45	20	0.5	70	x		x
				11.7	13.2	0.01		10	15	0.5	150	x		
				13.2	14.4	0.06		10	10	0.5	60	x		
				14.4	15.5	0.05		10	30	1	65	x		
				15.5	17.1	0.06		20	25	0.5	40	x		
				17.1	18.2	0.02		40	25	x	1700	x		
				18.2	19.5	0.04		10	30	x	170	x		
				19.5	19.8	0.05		660	240	1.5	2300	x		
				19.8	20.5	0.01		5	10	x	170	x		x
				20.5	20.8	0.01		5	15	0.5	290	x		
				20.8	22.3	0.12		120	5	0.5	70	x		
				22.3	22.8	0.27		40	5	0.5	35	x		
				22.8	25.0	0.03		35	20	x	45	x		
				25.0	25.4	0.05		5	20	x	140	x		
				25.4	26.6	0.10		30	10	x	30	x		x
				26.6	27.7	0.18		85	15	x	15	x		
				27.7	31.3	0.01		86	13	<1	6	40		
				31.3	35.2	0.01		23	16	<1	<4	30		
				35.2	38.5	0.13		5	810	4	175	40		
				38.5	40.2	0.04		5	175	1.5	140	15		x
				40.2	40.7	0.02		5	95	1	170	x		
				40.7	46.4	0.02		33	36	<1	55	30		
				46.4	51.5	0.01		83	16	<1	8	40		
				51.5	56.3	0.09		28	180	<1	36	10		
				56.3	60.0	0.02		95	105	0.5	15	x		0.042
				60.0	61.5	0.01		5	40	x	9	x		
				61.5	66.6	0.01		5	30	x	9	x		
				66.6	67.7	0.01		5	25	x	70	x		

hid	from	to	rocktype	from	to	Zn %	Ni ppm	Cu ppm	Pb ppm	Ag ppm	Sn ppm	W ppm	As ppm	Au ppm
				67.7	69.0	0.01		35	35	x	40	x		0.05
				69.0	70.3	0.01		175	15	x	x	x		
LC5	70.3	92.4	quartzite; trace iron sulphides	70.3	76.3	0.00		12	11	<1	<4	30		
				76.3	80.2	0.01		19	18	<1	<4	25		
				80.2	82.0	0.00		5	15	x	5	x		
				82.0	82.9	0.00		5	10	x	x	x		
				82.9	83.7	0.00		x	15	x	3	x		0.033
				83.7	84.7	0.00		x	15	x	6	x		
				84.7	85.5	0.01		90	15	x	10	x		
				85.5	86.9	0.00		15	10	x	x	x		
				86.9	88.3	0.00		10	15	x	15	x		0.017
				88.3	89.6	0.00		x	5	x	5	x		
				89.6	91.2	0.00		x	10	x	4	x		
				91.2	92.4	0.00		x	10	x	10	x		
LC5	92.4	112.4	altered calc-silicate rock; trace iron sulphides	92.4	94.0	0.01		85	10	x	9	x		0.017
				94.0	95.4	0.01		240	20	0.5	6	x		
				95.4	96.2	0.00		35	10	x	5	x		
				96.2	97.2	0.00		40	15	x	10	x		
				97.2	98.0	0.01		x	25	x	80	x		0.142
				98.0	102.9	0.01		50	9	<1	4	60		
				102.9	109.3	0.00		60	59	<1	18	75		
LC5	112.4	116.2	quartzite	109.3	119.5	0.01		170	12	<1	6	110		
LC5	116.2	119.5	altered calc-silicate rock											

END OF HOLE AT 119.5m

660087

Appendix 3

Summary of rock codes for holes TLC1 to TLC14

660088

bhid	from	to	rockcode
TLC1	0.0	3.0	N
TLC1	3.0	13.2	H
TLC1	13.2	25.5	CM
TLC1	25.5	28.0	L
TLC1	28.0	31.8	CM
TLC1	31.8	34.3	L
TLC1	34.3	41.3	CM
TLC1	41.3	46.4	BH
TLC1	46.4	48.6	CM
TLC1	48.6	54.3	DM
TLC1	54.3	58.5	MS
TLC1	58.5	63.9	L
TLC1	63.9	88.4	CM
TLC2	0.0	3.0	N
TLC2	3.0	19.5	Y
TLC2	19.5	28.1	MC
TLC2	28.1	30.1	C
TLC2	30.1	31.8	MS
TLC2	31.8	36.5	C
TLC2	36.5	37.2	MS
TLC2	37.2	38.9	C
TLC2	38.9	43.6	H
TLC2	43.6	50.5	CM
TLC2	50.5	78.1	C
TLC2	78.1	80.4	BC
TLC2	80.4	81.7	MS
TLC2	81.7	84.1	BC
TLC2	84.1	95.5	H
TLC2	95.5	104.7	C
TLC2	104.7	117.2	Q
TLC2	117.2	133.0	H
TLC3	0.0	6.0	N
TLC3	6.0	13.5	MS
TLC3	13.5	27.1	C
TLC3	27.1	47.4	C
TLC3	47.4	51.4	MS
TLC3	51.4	54.0	MC
TLC3	54.0	56.4	MS
TLC3	56.4	64.9	MC
TLC3	64.9	67.6	C
TLC3	67.7	70.8	L
TLC3	70.8	71.5	C
TLC3	71.5	73.9	L
TLC3	73.9	80.4	LC
TLC3	80.4	90.1	L
TLC3	90.1	111.5	LC
TLC3	111.5	132.8	C
TLC3	132.8	139.7	L
TLC3	139.7	142.0	C
TLC4	0.0	4.0	N
TLC4	4.0	24.4	C
TLC4	24.4	32.6	CM
TLC4	32.6	52.9	C
TLC4	52.9	57.7	CM
TLC4	57.7	73.0	LM
TLC4	73.0	80.9	MS

bhid	from	to	rockcode
TLC4	80.9	87.3	LS
TLC4	87.3	92.2	C
TLC4	92.2	113.0	LM
TLC4	113.0	134.0	C
TLC5	0.0	3.0	N
TLC5	3.0	70.3	C
TLC5	70.3	92.4	H
TLC5	92.4	112.4	C
TLC5	112.4	116.2	H
TLC5	116.2	119.5	C
TLC6	0.0	0.3	N
TLC6	0.3	2.1	SM
TLC6	2.1	17.7	LM
TLC6	17.7	25.4	LS
TLC6	25.4	32.3	MS
TLC6	32.3	40.6	SM
TLC6	40.6	52.1	CM
TLC6	52.1	62.7	C
TLC6	62.7	74.7	SM
TLC6	74.7	83.6	CM
TLC6	83.6	90.5	MS
TLC6	90.5	156.4	LM
TLC6	156.4	177.9	DM
TLC6	177.9	208.5	L
TLC7	0.0	6.0	N
TLC7	6.0	19.4	L
TLC7	19.4	21.3	C
TLC7	21.3	127.1	L
TLC7	127.1	132.6	C
TLC7	132.6	142.5	LM
TLC7	142.5	145.5	S
TLC7	145.5	160.5	D
TLC7	160.5	169.5	L
TLC7	169.5	185.2	DM
TLC7	185.2	188.8	B
TLC7	188.8	200.1	L
TLC8	0.0	6.0	N
TLC8	6.0	22.5	M
TLC8	22.5	53.6	C
TLC8	53.6	63.1	SM
TLC8	63.1	65.3	C
TLC8	65.3	85.7	C
TLC8	85.7	97.9	L
TLC8	97.9	101.2	C
TLC8	101.2	115.5	C
TLC8	115.5	150.9	L
TLC9	0.0	1.8	N
TLC9	1.8	30.4	H
TLC9	30.4	35.6	B
TLC9	35.6	54.8	H
TLC9	54.8	85.2	MS
TLC9	85.2	91.2	H
TLC9	91.2	96.3	C
TLC9	96.3	98.0	MS
TLC9	98.0	101.2	C

Appendix 4

CRAE logs of holes TLC1 to TLC14

042

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1

TENEMENT NAME TENTH LEGION No. 51M/7

PLAN – MAP REFERENCE TASH 2 TASH 16

CO-ORDINATES 3551·02N 5029·1E AZIMUTH 315° GRID DRILLERS S.RIMAK COMMENCED 14·3·81 DEPTH 134m HOLE No. THC4 26669/2667

RL COLLAR 223·6m INCLINATION -50° DRILL TYPE BOYLES 37 COMPLETED 20·3·81 CASING LEFT 4m NW (collar) DPO No(s) 26671

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ....) Cu	Pb	Zn	Ag	Sn	W	Au
			NQ	NC	0-4·0m TRICONE DRILLED - NO CORE.				GRIND		SAMPLES						
·0	7·0	2·6		Cst	4·0 - 24·35 CALC SILICATE ROCK	Minor chlorite - epidote veining	869962	4·0	9·5	5m	27	23	180	<1	8	55	
·0	8·5	1·5			Bone coloured f.gr tremolite-diopside	7·7m Bedding 40°		9·5	14·5	5m	38	9	100	<1	6	40	
·5	10·5	1·9			assemblage, with patches of pinkish brown and	Extensively brecciated and disrupted		14·5	19·5	5m	26	10	103	<1	4	50	
·5	13·5	3·0			green well bedded more diopside	- the white tremolite alteration		19·5	24·4	4·9m	130	14	500	1	<4	140	
3·5	16·0	2·5			rich material 0.3 - 1.0m. Some epidote	appears to post-date the green and brown	932296	10									
·0	19·5	3·4			veining.	material. Some thin calcite stringers	297	22	THIN	SECTION	SAMPLES.						
9·5	22·5	2·9			Gradually becomes greener and more	and segregations	298	25									
2·5	25·5	2·9			chloritic and altered with depth												
5·5	28·5	3·0			(after about 16m) - grossly brecciated												
8·5	31·5	3·0			and metasomatised fabric.												
1·5	34·5	2·9			Contact 65°				CUT	SAMPLES.							
4·5	37·5	3·0		Css	24·35 - 31·9 CHLORITE-RICH CALC	Grossly brecciated, metasomatised	877675	24·4	26·0	1·6	5	25	200	×	30	×	
7·5	40·5	2·8			SILICATE ROCK.	fabric - totally recrystallised.	676	26·0	26·6	0·6	5	15	150	×	3	×	×
0·5	43·5	3·0			Dark green coarsely crystalline chlorite	24·35 - 26·0 no obvious mineralisation	677	26·6	26·9	0·3	5	20	275	0·5	25	×	
3·5	46·5	3·0			in interstices of white crystalline	26·0 - 26·5 Granular mag with chlorite	678	26·9	27·2	0·3	5	20	90	×	6	×	
6·5	49·5	2·7			tremolite with recrystallised white	10%	679	27·2	27·8	0·6	5	20	155	×	7	×	
					residual calcite	26·5 - 26·9 Mag 70-80%, green serpentinite	680	27·8	28·4	0·6	×	10	115	×	7	×	0·008
						matrix. Py 1-2%.	681	28·4	29·6	1·2	×	15	185	×	10	×	
						26·9 - 27·5 Pinkish brown crystalline garnets	682	29·6	31·2	1·6	×	15	215	×	10	×	
						15% 20%	683	31·2	32·6	1·4	25	30	740	×	15	×	
						27·5 - 28·0 Granular mag with chlorite, 10%.											
						28·0 - 31·9 Patches of very crystallic											
					Contact 75°	chlorite, mag rare, trace Py.											
				Csd	31·9 - 47·90 CALC SILICATE ROCK?	31·9 - 35·1 Minor epidote veining	684	32·6	34·1	1·5	10	20	120	×	10	×	×
					Medium green f.gr diopside rich	and alteration. Some thin calcite veins.	685	34·1	35·3	1·2	5	45	115	×	10	×	
					matrix, with paler mottlings (tremolite?)	35·1 - Extensively brecciated, with			GRIND		SAMPLES						
					and brownish portions - possibly	greenish alteration proceeding along	869966	35·1	40·1	5·0	160	9	166	1	4	165	
					idocrase?; or more sediment rich	fractures. Little obvious mineralisation	967	40·1	44·0	3·9	60	5	107	<1	6	80	
					portions - less altered.	, parts of the rock have a 'spotted' fabric	968	44·0	47·9	3·9	63	14	193	1	<4	60	
					35·4 Bedding? 70° LCA	Patches of green crystalline chlorite accompanied	932299	43·2	THIN	SECTION	SAMPLE						

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2

TENEMENT NAME TENTH LEGION No. 51M/75

PLAN – MAP REFERENCE

CO-ORDINATES ... AZIMUTH ... DRILLERS ... COMMENCED ... DEPTH ... HOLE No. TLC4

RL COLLAR ... INCLINATION ... DRILL TYPE ... COMPLETED ... CASING LEFT ... DPO No(s)

DEPTH rom (M)	DEPTH To(M)	Core Rec (M)	Core Size	Graphic Log	CORE DESCRIPTION 43·7 Bedding 60° Contact 60°	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by:) Cu	Pb	Zn	Ag	Sn	W	Au
·9·5	52·5	2·5		Cst	47·90 – 52·9 CALC SILICATE ROCK.	No obvious mineralisation; pervasive calcite stringers.	877686	47·9	50·7	2·8	15	40	150	×	35	10	
2·5	55·5	3·0			Pale green and bone white fgr.	48·0 – 48·5 Pink crystallise garnets with	687	50·7	52·9	2·2	5	20	125	×	10	×	
5·5	58·5	2·8			tremolite – diopside rock, very similar	epidote 20·25%, minor calcite veining.											
8·5	61·5	3·0			to 4·0 – 24·35m. Extensive yellow-green												
1·5	64·5	2·8			epidote alteration and veining, esp.												
+·5	67·5	3·1			51·3 – 52·9m.												
7·5	70·5	2·8			Contact 68°												
·5	73·4	3·1		Css	52·9 – 57·7 CALC SILICATE SKARN	52·9 – 53·5 Po diosem as small blebs, 3%	688	52·9	53·5	0·6	160	25	435	×	×	×	×
					Granular grey-green rock – mainly diopside	53·5 – 54·9 Minor epidot, chlorite	689	53·5	54·9	1·4	50	40	760	0·5	15	×	
					with extensive chloritic alteration.	54·9 – 55·4 Mag diosem along fractures, 10%	690	54·9	55·4	0·5	180	90	1·3%	0·5	15	15	
					Mottled appearance, with minor residual	with sp 3-5%.											
					intervals of 47·9 – 52·9, above	55·4 – 56·1 Irregular masses of mag 40%	691	55·4	56·1	0·7	75	90	2·4%	×	15	×	
					Contact 35° 55·4 – 56·1 Magnetite with sepentinite	, sp 7-10% as interstitial blebs											
					60 – 80%.	56·1 – 56·9 Mag, diosem 5-7%; with po	692	56·1	56·9	0·8	450	40	6900	×	15	×	×
						2·5%; py 1-2% diosem and also in small											
						calcite – sp veins 1-2%.											
					Contact 80°	56·9 – 57·7 Trace po	693	56·9	57·7	0·8	50	30	1650	×	35	×	
				lst/Cst	57·7 – 73·0 ALTERED LIMESTONE	57·7 – 59·6 Very finely diosem po 5%	694	57·7	59·1	1·4	65	35	640	×	6	×	
					Grey finely banded impure recrystallised	59·6 – 65·4 Sepentinite 10·20% of rock	695	59·1	59·6	0·5	35	20	140	×	×	×	
					limestone, sepentinised, with bands of	rare traces diosem po.	696	59·6	61·0	1·4	5	35	210	×	4	×	×
					yellow and green sepentinite up to	65·4 – 67·2 Po in small veinlets 2-3%,	697	61·0	61·4	0·4	15	25	105	×	×	×	
					40 cm thick, usually at 70° LCA. In places	locally some mag. veinlets 1-2%	698	61·4	62·3	0·9	5	40	135	×	7	×	
					totally altered to bone white and green	67·2 – 67·6 Black chert band – rare trace py.	699	62·3	63·2	0·9	×	25	140	×	6	×	
					calc silicate assemblages for up to 1m.	67·6 – 68·0 Green banded calc silicate, 50°	700	63·2	63·8	0·6	×	20	60	×	4	×	×
					Very distinctive 'stripey' rock.	; trace py, mucanite along banding.	701	63·8	64·5	0·7	×	30	115	×	4	×	
					The grey carbonate intervals usually have	68·0 – 6 . Magnetite/sepentinite banding 50°	702	64·5	65·4	0·9	5	25	385	×	8	×	
					up to 5% very finely diosem po, which	to LCA, 35% of rock. Trace sp?	703	65·4	66·1	0·7	100	30	3500	×	25	×	
					makes the rock magnetic.	69·6 – 71·7 Very finely diosem mag in	704	66·1	67·2	1·1	60	15	330	×	25	×	×
					Mod banding 80 – 85° LCA	1st 5-7%, locally 10-15%.	705	67·2	67·6	0·4	5	10	60	×	×	×	
					65·4 – 73·0 Greater percentage of calc silicate	71·7 – 73·0 Calc silicate rock, minor	706	67·6	68·0	0·4	35	650	600	1·0	25	10	
					rock – 80% overall	mag in grey bands to 5cm.	707	68·0	68·9	0·9	90	225	1800	1·0	50	×	

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 3

TENEMENT NAME TENTH LEGION No 5/M/75

PLAN – MAP REFERENCE

CO-ORDINATES AZIMUTH DRILLERS COMMENCED DEPTH HOLE No. TLC4

RL COLLAR INCLINATION DRILL TYPE COMPLETED CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANALABS) Cu	Pb	Zn	Ag	Sn	W	Au
					Contact 72°												
3·4	76·5	3·0		S/M	73·0 – 80·9 SERPENTINITE/MAGNETITE	73·0 – 73·4 Mag 10%	877708	68·9	69·6	0·7	10	85	340	×	25	×	0·008
·5	79·3	2·8			finely banded green (serp), white (carbonates	73·4 – 75·1 Mag 40% with green serp and	709	69·6	70·1	0·5	15	115	380	×	7	×	
1·3	82·4	2·8			and residual minerals) and black (mostly mag)	white residual minerals.	710	70·1	71·7	1·6	20	80	590	×	7	×	
1·4	85·3	3·0			rock, rather incompletely altered, with up	75·1 – 77·5 Mag 20–30%, variable 10–50%	711	71·7	73·0	1·3	5	90	600	×	60	×	
5·3	88·3	3·2			to 0·6 m bands of mag/serp alternating	with bottle green serp or diseem in pale	712	73·0	73·4	0·4	5	45	490	×	40	×	×
3·3	91·5	3·4			with thinner banded mixtures of all three.	green serpentinised carbonates.	713	73·4	75·1	0·7	30	90	560	×	60	×	
·5	95·5	3·0				77·5 – 78·3 Mag 10% in serp stockwork within	714	75·1	76·2	1·1	60	1000	365	5·0	140	×	
5·5	98·5	3·0				bone white calc-silicates	715	76·2	77·5	1·3	75	700	490	5·0	140	×	
8·5	101·5	3·0				78·3 – 78·9 Mag 40% in green serpentinite	716	77·5	78·3	0·8	25	155	620	×	65	✓	×
01·5	104·5	3·0				78·9 – 79·4 Mag 15% finely dissem in calc silicates	717	78·3	78·9	0·6	35	40	225	×	50	×	
04·5	107·5	3·0				79·4 – 80·9 Mag 25–30% in serpentinite (30cm	718	78·9	79·4	0·5	×	50	175	×	30	×	
7·5	110·5	3·0			Contact 60°	bands; overall 15–20%.	719	79·4	80·2	0·8	10	95	390	×	55	×	
0·5	113·5	3·0		S/Lst	80·9 – 87·25 SERPENTINISED LIMESTONE	80·9 – 82·6 Mag 1–2% in discrete zones	720	80·2	80·9	0·7	235	620	9500	4·0	120	25	0·025
					White carbonate rich rock, with minor	, some dissem. blebs. Trace py in thin veinlets	721	80·9	82·3	1·4	5	50	220	0·5	60	20	
					intervals of bony white calc-silicate	82·6 – 87·25 Rare blebs magnetite (trace)	722	82·3	83·9	1·6	×	65	500	×	×	×	
					minerals, highly contorted grossly banded	; even more rare thin py veinlets.	723	83·9	85·5	1·6	×	50	240	×	20	×	
					fabric with extensive yellowish greeny brown		724	85·5	87·3	1·8	×	40	470	×	5	×	0·017
					serpentinite in 5mm → 10 cm bands throughout.													
					? Possibly the calcite is an alteration												
					product associated with the serpentinisation												
					of a calc silicate rock?												
					Contact 65°		725	87·3	88·5	1·2	5	30	80	×	15	×	
				Cst	87·25 – 92·6 CALC SILICATE ROCK.	87·25 – 91·3 Traces of mag, po, sp	726	88·5	89·9	1·4	5	30	180	×	25	×	
					Bone coloured diopside/tremolite rock	associated with sparse serpentinite	727	89·9	91·3	1·4	35	50	2500	×	20	×	
					banded 40–60°, minor dark (chloritic?)	bands.											
					alteration along small fractures	91·3 – 92·6 Pyrrhotite in bands to 15cm	728	91·3	92·2	0·9	260	40	290	×	15	×	0·008
					Some minor grey banded lst interbeds	with epidote, partially degraded to py	729	92·2	94·1	1·9	35	40	750	×	20	×	
					Contact 70°	10–12%.	730	94·1	95·0	0·9	5	30	85	×	15	30	
				Lst/(s)	92·6 – 113·0 ALTERED LIMESTONE	92·6 – 96·5 1–2% finely dissem po, mag?	731	95·0	95·4	0·4	5	45	65	×	×	×	
					See 57·7 – 73·0 for description.	96·5 – 98·0 5% finely dissem po, py 1%, mag?	732	95·4	96·5	1·1	20	45	70	×	10	20	0·017
						98·0 – 99·5 Mag, dissem, 10%; po 2–3%, py (tr)	733	96·5	98·0	1·5	20	50	155	×	7	×	

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 4

TENEMENT NAME TENTH LEGION No 5M/75

PLAN – MAP REFERENCE

CO-ORDINATES AZIMUTH DRILLERS COMMENCED DEPTH HOLE No. THC4

RL COLLAR INCLINATION DRILL TYPE COMPLETED CASING LEFT DPO No(s)

DEPTH From (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by) Cu	Pb	Zn	Ag	Sn	W	Au
13.5	116.5	3.0			99.5 - 101.3 Silicified zone with 15% po,	partially degraded to py.	877734	98.0	99.8	1.8	15	50	320	x	30	x	
16.5	119.5	3.0			101.3 - 106.2 Grey spotted carbonate	101.3 - 106.2 trace po in carbonates, some	735	99.8	101.3	1.5	165	130	4200	0.5	70	30	
19.5	122.4	2.7			, not so well banded, extensively	rare blebs magnetite	736	101.3	102.7	1.4	25	40	350	0.5	40	x	0.050
22.4	125.2	3.0			serpentinised - yellow and brown sep > 50%	106.2 - 113.0 Minor mag veining, some	737	102.7	104.5	1.8	x	35	85	x	15	x	
25.2	128.5	3.5			of rock.	very finely disseminated mag; trace po.	738	104.5	106.2	1.7	10	40	150	x	15	x	
28.5	131.5	3.2			106.2 - 113.0 Greater percentage of Lst, again		739	106.2	107.4	1.2	x	30	75	x	15	x	
31.5	134.0	2.3			moderately well banded at approx 60°.		740	107.4	108.9	1.5	5	40	160	x	15	x	0.017
				↓	Contact		741	108.9	110.3	1.4	20	35	90	x	35	x	
				Css	113.0 - 116.2 CALC SILICATE SKARN ROCK	113.0 - 113.6 Po dissem 10-15%, 1-2% Sp	742	110.3	110.8	0.5	5	45	75	x	30	x	
					Green, pink and white F.gr. calc silicate	, trace py in veinlets.	743	110.8	112.1	1.3	15	35	90	x	10	x	
					rock, extensively silicified and	113.6 - 114.3 Minor dissem mag in more	744	112.1	113.0	0.9	35	30	120	x	55	x	0.025
					converted to a grey massive rock	finely banded portions.	745	113.0	113.6	0.6	215	50	2150	x	45	40	
					with dissem po.	114.3 - 116.2 Po dissem in 10-30 cm intervals	746	113.6	114.3	0.7	10	55	360	0.5	310	x	
						, 10-15%, elsewhere 1-2%. Patchy dissem	747	114.3	115.3	1.0	105	35	830	x	170	x	
						mag. Minor haematite; and traces py in	748	115.3	116.2	0.9	125	190	3500	2.0	230	15	0.008
				↓	Contact 85°	fine calcite veinlets (with mag).	749	116.2	117.0	0.8	15	40	195	x	35	x	
				Csd	116.2 - 134.0 ?CALC SILICATE ROCK.	116.2 - 117.0 Weak trace py, fine calcite veins	750	117.0	117.7	0.7	20	30	160	x	130	x	
				(ss/sh?)	Brown and green thinly bedded	117.0 - 117.7 Green epidote rich rock	751	117.7	119.0	1.3	15	30	60	x	10	x	
					rock, hard tough and very fine grained	117.7 - 119.0 Trace py, weak epidote veining	752	119.0	119.8	0.8	5	20	700	x	130	x	x
					Irregular patches of grey green to	119.0 - 120.3 Green epidote rich rock	753	119.8	120.9	1.1	65	130	670	1.5	290	10	
					white alteration (epidote, chlorite)	120.3 - 120.8 po, py dissem 10-15%	754	120.9	121.8	0.9	10	35	170	0.5	25	x	
					associated with fracturing / veining	120.8 - 121.8 Green epidote veining (weak) tr. py.	877755	121.8	123.1	1.3	25	30	990	0.5	120	x	
					Most bedding angles 80-85°	121.8 - 123.1 Epidote rich, 2-5% po (dissem)	932114	123.1	125.0	1.9	15	10	170	x	30	x	
					128.7 - 131.1 More greenish diopsidic	minor calcite-py veinlets.	115	125.0	126.8	1.8	30	15	170	x	40	x	
					rock	123.1 - 130.6 Brown rock, extensively	116	126.8	129.0	2.2	60	10	90	x	25	x	x
					131.1 - 134.0 Very well bedded pale	fractured - weak stockworks of dark	117	129.0	130.3	1.3	25	20	215	x	30	200	
					brown and maroon laminae - sediments?	alteration products, rare epidote, rare	118	130.3	131.0	0.7	65	20	1900	x	95	15	
					133.0 Bedding 80°	blebs py. Some ultrafine dissem py.?	119	131.0	132.4	1.4	90	15	60	x	30	x	
						130.6 - 130.9 5-7% dissem po with epidote, trace sp.	120	132.4	134.0	1.6	85	10	50	x	25	x	x
						130.9 - 134.0 py, po as bedded	932300	114.8	THIN SECTION SAMPLES.								
				↓	END OF HOLE 134.0 m.	laminae and fine stringers; 5-7%.	301	134.0									

66009

046

C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 1

TENEMENT NAME TENTH LEGION No(s) M/75

PLAN – MAP REFERENCE TASH 2 TASH 17

3439·17N

CO-ORDINATES 4852·40E AZIMUTH 315° GRID DRILLERS S RIMAK COMMENCED 20·3·81 DEPTH 119·5 m HOLE No. T.L.C.5

RL COLLAR 235 m INCLINATION −50° DRILL TYPE BOYLES 37 COMPLETED 31·3·81 CASING LEFT 3m NW (collar) DPO No(s) 26671, 26670, 26672

DEPTH From (M)	DEPTH To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ANALABS) Cu	Pb	Zn	Ag	Sn	W	Au	
					TRICONED TO 3·0m – NO CORE													
·0	4·6	1·4	NQ	Cst	3·0–7·4 CALC SILICATE ROCK	3·0–7·4 Well fractured and broken;	932107	3·0	5·2	2·2	5	45	320	1·0	140	×		
6	5·7	1 2	to30m		Pale grey, pink and green tremolite-	pale green epidote veining.	108	5·2	5·4	0·2	10	745	2850	1·5	140	15	0·025	
7	8·0	2 4			diopside rock. Very hard, fine grained	7·4–8·0 Pale green epidote 20–25% of rock	109	5·4	7·4	2·0	15	175	1100	0·5	45	×		
·0	11·0	3·0			, weakly and randomly banded, and	mottled green and white, metasomatised.	877781	7·4	8·2	0·8	15	80	470	1·0	210	×		
·0	13·6	2·6			fractured, with a cross cutting	8·0–8·3 Barren pink and green calc silicate	782	8·2	9·6	1·4	10	215	1150	2·0	540	×		
·6	16·0	2·4			network of epidote veins.	8·3–9·6 40–50% yellow-green epidote.	783	9·6	10·7	1·1	90	35	165	0·5	45	×		
·0	17·6	2·0			Most veins around 15–20° LCA	9·6–10·7 Trace py, epidote 2·3%.	784	10·7	11·7	1·0	45	20	105	×	70	×	×	
·6	21·5	3·9		Css	7·4–23·5 CALC SILICATE SKARN	10·7–11·7 Pink and green calc silicate; minor	785	11·7	13·2	1·5	10	15	120	0·5	150	×		
·5	23·2	1·8			As above, but grossly altered and	epidote.	786	13·2	14·4	1·2	10	10	580	0·5	60	×		
3·2	24·6	0·9			metasomatised fabric – greens – pinks	11·7–13·2 Epidote veining, some pink ?garnets	787	14·4	15·5	1·1	10	30	450	1·0	65	×		
·6	25·6	1·0			– greys and yellow-greens (epidote)	or ? idocrase.	788	15·5	17·1	1·6	20	25	590	0·5	40	×	×	
·6	27·6	2·0			Some intervals rather greyer and less	13·2–14·4 Greyish breccia, barren.	789	17·1	18·2	1·1	40	25	240	×	1700	×		
·6	30·0	2·4			altered, with a pronounced breccia	14·4–17·1 Mixed breccia (grey) and minor	790	18·2	19·5	1·3	10	30	430	×	170	×		
·0	31·5	2·0			fabric.	pink and green intervals with epidote.	791	19·5	19·8	0·3	660	240	480	1·5	2300	×		
·5	34·3	2·9				17·1–17·6 Chloritic alteration – crystalline	792	19·8	20·5	0·7	5	10	55	×	170	×	×	
·3	37·5	3·2				chlorite/phlogopite 30% of rock	793	20·5	20·8	0·3	5	15	135	0·5	290	×		
·5	40·3	2·8				17·6–18·2 Massive dark green chloritic	794	20·8	22·3	1·5	120	5	1150	0·5	70	×		
·3	43·5	2·6			18·2 Contact 45°	rock, minor epidote, traces py in veinlets.	795	22·3	22·8	0·5	40	5	2650	0·5	35	×		
·5	46·5	3·0			18·2–19·4 Weakly banded grey calc	18·2–19·4 Green ? chloritic bands.	932110	22·8	25·0	2·2	35	20	340	×	45	×		
·5	49·5	3·0			-silicate rock. 18·7 banding 55°.	19·4–19·8 felted mass of ?tremolite in a	111	25·0	25·4	0·4	5	20	465	×	140	×		
·5	52·4	2·9			19·4–23·5 Grossly brecciated grey rock	dark green-grey matrix (or v.v.)	112	25·4	26·6	1·2	30	10	1000	×	30	×	×	
2·4	55·5	3·1			with dark green-grey interstitial material	19·8–20·2 Green-grey barren calc silicate	113	26·6	27·7	1·1	85	15	1750	×	15	×		
5·5	58·5	2·9			(chloritic) in a felted mass of ?tremolite	20·2–20·8 As for 19·4–19·8	869969	27·7	31·3	3·6	86	13	63	<1	6	40		Grind samples
·5	61·5	3·0			19·8 Contact 45°	20·8–23·5 No obvious mineralisation.	970	31·3	35·2	3·9	23	16	66	<1	<4	30		
·5	64·5	3·0			20·8 " 40°	, trace sp at 22·3 m.	971	35·2	38·5	3·3	5	810	1320	4	175	40		
·5	67·5	3·0			Contact 45°		877796	38·5	40·2	1·7	5	175	380	1·5	140	15	×	
·5	70·3	2·8		Cst	23·5–69·9 CALC SILICATE ROCK	23·5–40·7 Coarse gr. chlorite in	797	40·2	40·7	0·5	5	95	160	1·0	170	×		
					Pale greeny-grey diopside-tremolite	irregular patches, usually some	869972	40·7	46·4	5·7	33	36	155	<1	55	30		Grind samples
					rock crystalline; minor irregular patches	intergrown magnetite. Traces po, py	973	46·4	51·5	5·1	83	16	122	<1	8	40		
					of crystalline chlorite. Thin epidote veining	sp also. Some pink garnet? (idocrase?)	974	51·5	56·3	4·8	28	180	860	<1	36	10		

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2

TENEMENT NAME TENTH LEGION No. SIN/75

PLAN – MAP REFERENCE

CO-ORDINATES ... AZIMUTH ... DRILLERS ... COMMENCED ... DEPTH ... HOLE No. TLC5

RL COLLAR ... INCLINATION ... DRILL TYPE ... COMPLETED ... CASING LEFT ... DPO No(s)

DEPTH From (M)	DEPTH To(M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by ... Cu	Pb	Zn	Ag	Sn	W	Au		
·3	74·4	3·1	NQ		23·5-69·9 cont...		869975	56·3	65·0	8·7	13	12	43	<1	6	20		Grind sa	
·4	77·5	3·1	to 30m		Most alteration contacts approx 45-50°	40·7-69·9 Sparse epidote veins, rare	877156	58·5	60·0	1·5	95	105	160	0·5	15	×	0·042		
7·5	80·5	3·1	BQ		Gradually becomes harder and whiter	blebs py: Barren.	757	60·0	61·5	1·5	5	40	60	×	9	×			
·5	83·5	3·0	30m		with depth; alteration diminishes		758	65·0	66·6	1·6	5	30	55	×	9	×			
3·5	86·2	2·8	↓		from small patches every 0·5m to		759	66·6	67·7	1·1	5	25	50	×	70	×			
					thin veinlets and discrete zones every		760	67·7	69·0	1·3	35	35	55	×	40	×	0·050		
					1m, then gradually becomes more		761	69·0	70·3	1·3	175	15	55	×	×	×			
					sporadic. Disruption and brecciation		869976	70·3	76·3	6·0	12	11	48	<1	<4	30		} Grind sa	
					decreases, and bedding becomes		977	76·3	80·2	3·9	19	18	50	<1	<4	25			
					progressively more parallel to LCA viz:		877762	80·2	82·0	1·8	5	15	35	×	5	×			
					37·0 Bedding 20°		763	82·0	82·9	0·9	5	10	30	×	×	×			
					45·2 Bedding 20°		764	82·9	83·7	0·8	×	15	45	×	3	×	0·033		
					49·8 Bedding 13°		765	83·7	84·7	1·0	×	15	35	×	6	×			
					49·6-55·0 Brownish patch of		766	84·7	85·5	0·8	90	15	50	×	10	×			
					siltstone? Bedding at higher angles														
					to core. White alteration is still present		932302	12·3			}								
					along fractures and in small bands.		303	60			} THIN SECTION SAMPLES.								
					52·5 ? Bedding 45°	58·5-60·4 Zone of green alteration	304	70·5			}								
					56·2 ? Bedding 55°	- mottled diopside ? with traces py, po tremolite	305	88			}								
					60·4 contact 40°		932316	19·6m			- Mineragraphic Sample.								
					64·4 Bedding 50°	65·0-65·9 Mottled pale green crystalline													
						tremolite/diopside.													
						65·9-69·9 Traces po, py disseminated													
				↓	Contact 30°	blebs along or around small cracks.													
				9/(9s)	69·9-85°0 QUARTZITE?	69·9-80·2 Barren - no mineralisation.													
					White rock with coarse qtz grains	80·2-82·0 Disseminated epidote 10%.													
					in a white f.gr sericitic? matrix	82·0-82·9 Barren - f.gr. 'calc silicate'													
					Originally and impure quartz sandstone?	thin epidote stringers.													
					Massive and featureless, some	82·9-83·7 Disseminated epidote in qtz/ca, 10%.													
					qtz segregations and occasional	83·7-85·0 Minor epidote stringers.													
				↓	thin cherty beds of altered seds.														

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043

C.R.A. EXPLORATION PTY. LIMITED

DRILL CORE LOG

SHEET No. 3

TENEMENT NAME TENTH LEGION No SM 175

PLAN – MAP REFERENCE

CO-ORDINATES AZIMUTH DRILLERS COMMENCED

DEPTH 119.5m HOLE No. TLC5

RL COLLAR INCLINATION DRILL TYPE COMPLETED

CASING LEFT DPO No(s)

DEPTH (m)	To (M)	Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by) Cu	Pb	Zn	Ag	Sn	W	Au	
2	89.5	3.3			83.7 - Alteration at 35° LCA		877767	85.5	86.9	1.4	15	10	20	x	x	x		
5	92.5	3.0			Bedding at 25° to LCA		768	86.9	88.3	1.4	10	15	30	x	15	x	0.017	
5	95.5	3.0			84.1 - 85.0 Contact b/w qtzite and ? calc		769	88.3	89.6	1.3	x	5	20	x	5	x		
5	98.3	2.8			silicate rocks – 2°.		770	89.6	91.2	1.6	x	10	20	x	4	x		
3	101.2	2.9		? Cst	85.0 - 89.5 ? Calc Silicate Rock or	85.0 - 85.5 py - po - epidote - chlorite	771	91.2	92.4	1.2	x	10	25	x	10	x		
2	104.3	3.0		ss/ch?	Siltstones/cherts.	stringers 10%.	772	92.4	94.0	1.6	85	10	60	x	9	x	0.017	
+3	107.2	2.9			Pale brown finely bedded rock, as	85.5 - 89.5 traces po, py as blebs	773	94.0	95.4	1.4	240	20	75	0.5	6	x		
1.2	110.5	3.3			above 40.7 - 69.9m, minor qtzite	assoc with fractures. Thin epidote veinlets.	774	95.4	96.2	0.8	35	10	40	x	5	x		
5	113.5	2.8			interbeds.		775	96.2	97.2	1.0	40	15	45	x	10	x		
3.5	116.5	3.0			85.6 Bedding 30°		776	97.2	98.0	0.8	x	25	125	x	80	x	0.142	
5	119.5	3.1			Contact 15°		869978	98.0	102.9	4.9	50	9	81	<1	4	60		Grind samples
				q	89.5 - 91.7 QUARTZITES	89.5 - 91.7 Traces dissem epidote,	979	102.9	109.3	6.4	60	59	24	<1	18	75		
					See above, 69.9 - 85.0 for description.	barren.	980	109.3	119.5	10.2	170	12	122	<1	6	110		
					Contact 80°, faulted.													
				? Cst	91.7 - 112.4 ? CALC SILICATE ROCK	91.7 - 92.4 Barren pink and green												
					Greys and pale brown f.gr. rock	calc silicate rock, bedding 2 - 10° LCA												
					as above, 40.7 - 69.9. Some thin	92.4 - 97.6 Deformed and brecciated												
					qtzite interbeds to 5 cm thick	with alteration along breccia paths												
					92.5 Bedding <5°	and 1-2% py and po as interstitial												
					103.0 Bedding <5°.	blebs, rarely dissem along quartzite												
					Contact 80°, brecciated	interbeds. Qtz - epidote veinlets and												
				q	112.4 - 116.2 QUARTZITE	stringers.												
					As above, but with some pinkish	97.6 - 104.1 Sparse thin qtz - epidote												
					and greenish minerals - originally	stringers with 2-3m white bleached												
					carbonate rich?	alteration haloes.												
					Contact 4°	104.1 - 105.6 Breccia zone - qtz epidote	877777	104.1	105.6	1.5	40	90	195	1.5	100	40		
				? Cst	116.2 - 119.5 ? CALC SILICATE ROCK	stockwork (10%)	778	112.4	113.2	0.8	15	40	105	0.5	15	x		
					See above, 40.7 - 69.9, for description	105.6 - 112.4 See 97.6 - 104.1	779	113.2	114.8	1.6	15	30	60	x	20	x		
					118.0 Bedding 25°	112.4 - 116.2 Sparse dissem. epidote and	780	114.8	116.2	1.4	x	25	55	x	20	x	0.017	
						a pinkish mineral - garnet(?) or ? idocrase.												
					END OF HOLE 119.5 m.	116.2 - 119.5 Minor qtz - epidote stringers.												

160099

Appendix 6

Nickel assay data as received

BU017108	296		34
143601	091199Ni		
UNITS	ppm		
DETECTI	25		
METHOD	I105		
CO			
CO			
TLC2	24.4-26.4	X	
TLC2	26.4-28.1		30
TLC2	36.5-37.2	X	
TLC2	46.5-48.5		100
TLC2	48.5-50.5		155
TLC2	50.5-52.5		130
TLC2	52.5-54.5		120
TLC2	54.5-56.5		145
TLC2	56.5-58.5		125
TLC2	58.5-60.5		115
TLC2	60.5-62.5		92
TLC2	62.5-64.5		105
TLC2	64.5-66.4		52
TLC2	66.4-68.4		150
TLC2	68.4-70.4		160
TLC2	70.4-71.6		88
TLC2	71.6-72.4		46
TLC2	80.4-81.5		46
TLC2	96.0-97.1		80
TLC2	101.2-103.	X	
TLC2	103.7-104.	X	
TLC3	16.1-16.4		46
TLC3	16.4-18.1		82
TLC3	18.1-19.0		88
TLC3	47.4-49.0		42
TLC3	49.0-49.8		28
TLC3	49.8-51.4		30
TLC3	51.4-54.0		26
TLC3	54.0-55.2		190
TLC3	55.2-56.4		98
TLC3	56.4-57.2	X	
TLC3	57.2-57.8		120
TLC3	57.8-60.0		48
TLC3	60.0-61.3		105
TLC3	61.3-62.0	X	
TLC4	55.4-56.1		54
TLC4	56.1-56.9		115
TLC4	68.0-68.9		30
TLC4	68.9-69.6		120
TLC4	69.6-70.1		78
TLC4	70.1-71.7		28
TLC4	71.7-73.0		26
TLC4	73.0-73.4	X	
TLC4	73.4-75.1		44

TLC4	75.1-76.2		60
TLC4	76.2-77.5		155
TLC4	77.5-78.3		140
TLC4	78.3-78.9		46
TLC4	78.9-79.4	X	
TLC4	79.4-80.2	X	
TLC4	80.2-80.9		32
TLC4	80.9-82.3	X	
TLC4	89.9-91.3	X	
TLC4	98.0-99.8		98
TLC4	99.8-101.3		44
TLC4	101.3-102.	X	
TLC4	113.6-114.		46
TLC6	0.3-1.6	X	
TLC6	1.6-2.1		48
TLC6	2.1-4.3		28
TLC6	4.3-5.9	X	
TLC6	5.9-7.2		40
TLC6	7.2-8.4		28
TLC6	26.2-27.1		32
TLC6	27.1-27.9		48
TLC6	27.9-29.6		42
TLC6	29.6-30.9		74
TLC6	30.9-32.3		64
TLC6	32.3-33.2		42
TLC6	33.2-34.3		50
TLC6	34.3-35.8		60
TLC6	35.8-36.7		32
TLC6	36.7-38.2		64
TLC6	38.2-39.6		38
TLC6	39.6-40.6		56
TLC6	40.6-42.0		28
TLC6	42.0-42.9		52
TLC6	42.9-44.5		30
TLC6	44.5-45.2		68
TLC6	45.2-46.4		32
TLC6	46.4-48.1		34
TLC6	48.1-49.1		54
TLC6	49.1-50.1		64
TLC6	62.7-64.0		115
TLC6	64.0-65.1		78
TLC6	65.1-65.9		76
TLC6	65.9-66.4		36
TLC6	66.4-67.9		30
TLC6	67.9-69.7		78
TLC6	69.7-71.2	X	
TLC6	71.2-72.5		26
TLC6	72.5-72.9	X	
TLC6	72.9-74.0		74
TLC6	74.0-74.7		38
TLC6	79.8-81.1		40

660101

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 : BU017108
Your reference : **143601**
Project code : 991101
Date received : 09/11/99
Date reported : 03/12/99

Mick McKeown

McKeown Mining Pty Ltd
Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Number of pages of results : 7
Number of Samples : 296
First Sample : TLC2 24.4-26.4
Last Sample : TLC14 156.8-158.0

Invoice to:
Mick McKeown

McKeown Mining Pty Ltd
Allegiance Mining NL
Newnham Exploration and Mining Service
PO Box 132
RIVERSIDE
TAS 7250

Electronic Data Transmission :

Modem		Y 03/12/99
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.

660102

ANALABS

Our reference : BU017108
Your reference : 143601
Project code : 991101
Report date : 03/12/99
Report status : Final
Page : 1 of 7

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					
TLC2 24.4-26.4	<25					
TLC2 26.4-28.1	30					
TLC2 36.5-37.2	<25					
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TLC2 54.5-56.5	145					
TLC2 56.5-58.5	125					
TLC2 58.5-60.5	115					
TLC2 60.5-62.5	92					
TLC2 62.5-64.5	105					
TLC2 64.5-66.4	52					
TLC2 66.4-68.4	150					
TLC2 68.4-70.4	160					
TLC2 70.4-71.6	88					
TLC2 71.6-72.4	46					
TLC2 80.4-81.5	46					
TLC2 96.0-97.1	80					
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TLC2 103.7-104.7	<25					
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TLC3 18.1-19.0	88					
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TLC3 57.2-57.8	120					
TLC3 57.8-60.0	48					
TLC3 60.0-61.3	105					
TLC3 61.3-62.0	<25					
TLC4 55.4-56.1	54					
TLC4 56.1-56.9	115					
TLC4 68.0-68.9	30					
TLC4 68.9-69.6	120					
TLC4 69.6-70.1	78					
TLC4 70.1-71.7	28					
TLC4 71.7-73.0	26					
TLC4 73.0-73.4	<25					
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TLC4 75.1-76.2	60					
*Rep TLC2 66.4-68.4	44					
*Rep TLC3 55.2-56.4	66					
*Blk BLANK	<25					
*Std SU 1A	1.25%					
*Std GT2A	4580					
Method	I105					
Units	ppm					
Detection Limit	25					

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

660103

ANALABS

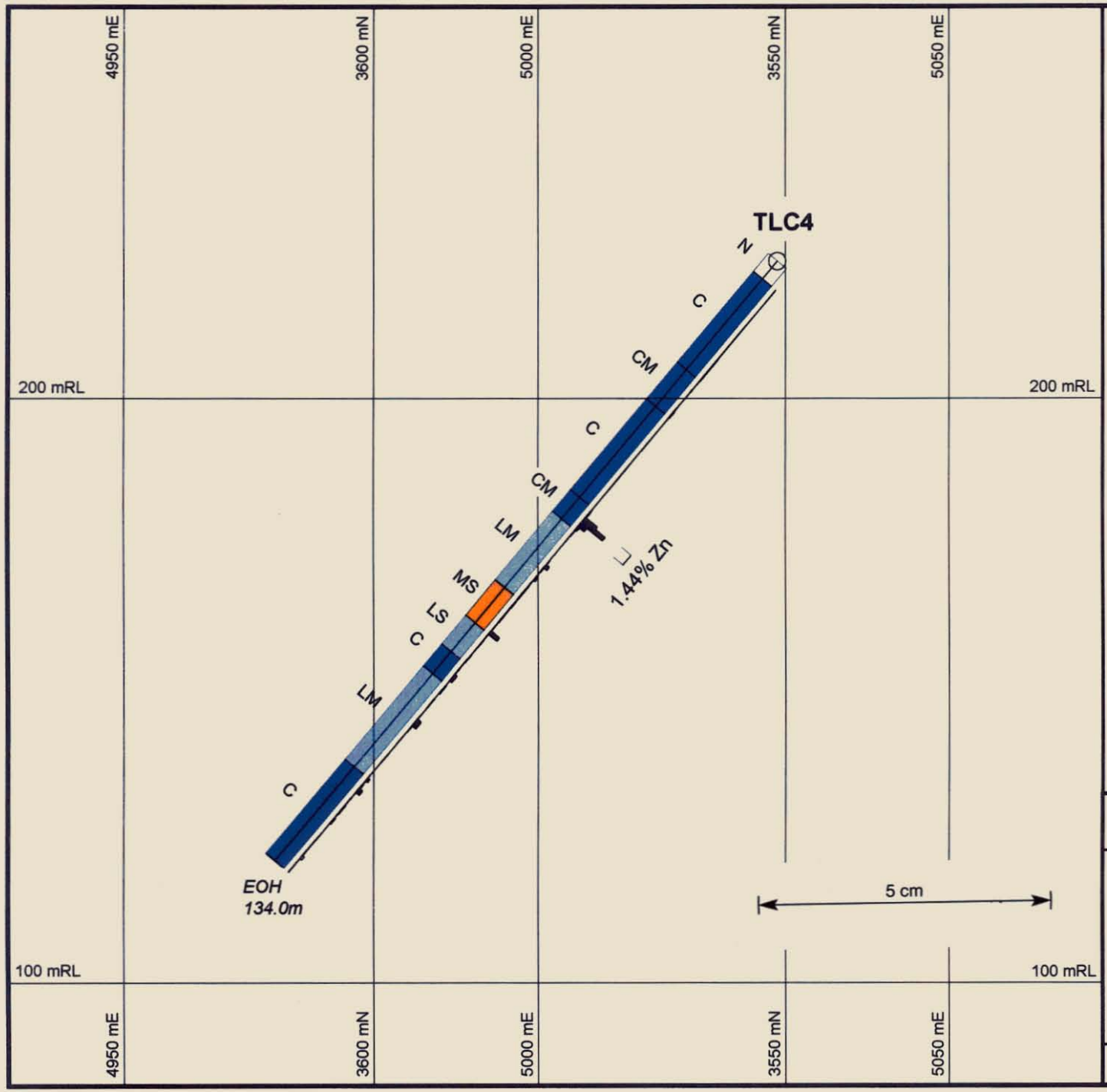
Our reference : BU017108
Your reference : **143601**
Project code : 991101
Report date : 03/12/99
Report status : Final
Page : 2 of 7

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					
TLC4 76.2-77.5	155					
TLC4 77.5-78.3	140					
TLC4 78.3-78.9	46					
TLC4 78.9-79.4	<25					
TLC4 79.4-80.2	<25					
TLC4 80.2-80.9	32					
TLC4 80.9-82.3	<25					
TLC4 89.9-91.3	<25					
TLC4 98.0-99.8	98					
TLC4 99.8-101.3	44					
TLC4 101.3-102.7	<25					
TLC4 113.6-114.3	46					
TLC6 0.3-1.6	<25					
TLC6 1.6-2.1	48					
TLC6 2.1-4.3	28					
TLC6 4.3-5.9	<25					
TLC6 5.9-7.2	40					
TLC6 7.2-8.4	28					
TLC6 26.2-27.1	32					
TLC6 27.1-27.9	48					
TLC6 27.9-29.6	42					
TLC6 29.6-30.9	74					
TLC6 30.9-32.3	64					
TLC6 32.3-33.2	42					
TLC6 33.2-34.3	50					
TLC6 34.3-35.8	60					
TLC6 35.8-36.7	32					
TLC6 36.7-38.2	64					
TLC6 38.2-39.6	38					
TLC6 39.6-40.6	56					
TLC6 40.6-42.0	28					
TLC6 42.0-42.9	52					
TLC6 42.9-44.5	30					
TLC6 44.5-45.2	68					
TLC6 45.2-46.4	32					
TLC6 46.4-48.1	34					
TLC6 48.1-49.1	54					
TLC6 49.1-50.1	64					
TLC6 62.7-64.0	115					
TLC6 64.0-65.1	78					
TLC6 65.1-65.9	76					
TLC6 65.9-66.4	36					
TLC6 66.4-67.9	30					
TLC6 67.9-69.7	78					
TLC6 69.7-71.2	<25					
*Rep TLC4 76.2-77.5	56					
*Rep TLC6 4.3-5.9	<25					
*Blk BLANK	<25					
*Std SU_1A	1.14%					
*Std BM_44	1.25%					
Method	I105					
Units	ppm					
Detection Limit	25					

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



LEGEND

N	No core recovered
Y	Clays
H	Shale and siltstone
Q	Quartzite, quartz-sericite rock
D	Dolomite
DM	Dolomite with magnetite
L	Limestone
LC	Limestone with calc-silicate alteration
LM	Limestone with magnetite
LS	Limestone with serpentinite
C	Calc-silicate rock
CM	Calc-silicate rock with magnetite
M	Massive magnetite
MC	Magnetite with calc-silicate mineralisation
MQ	Magnetite with silicate mineralisation
MS	Magnetite with serpentinite
C	Calc-silicate rock
CM	Calc-silicate rock with magnetite
S	Serpentinite
SM	Serpentinite with magnetite
	Breccia
BC	Brecciated calc-silicate rock
BH	Brecciated shale and siltstone
BS	Brecciated serpentinite

SCALE : 1:1000 0 25 50 m

Allegiance Mining N.L.

TENTH LEGION AREA

CROSS SECTION THROUGH

DRILL HOLE TLC4

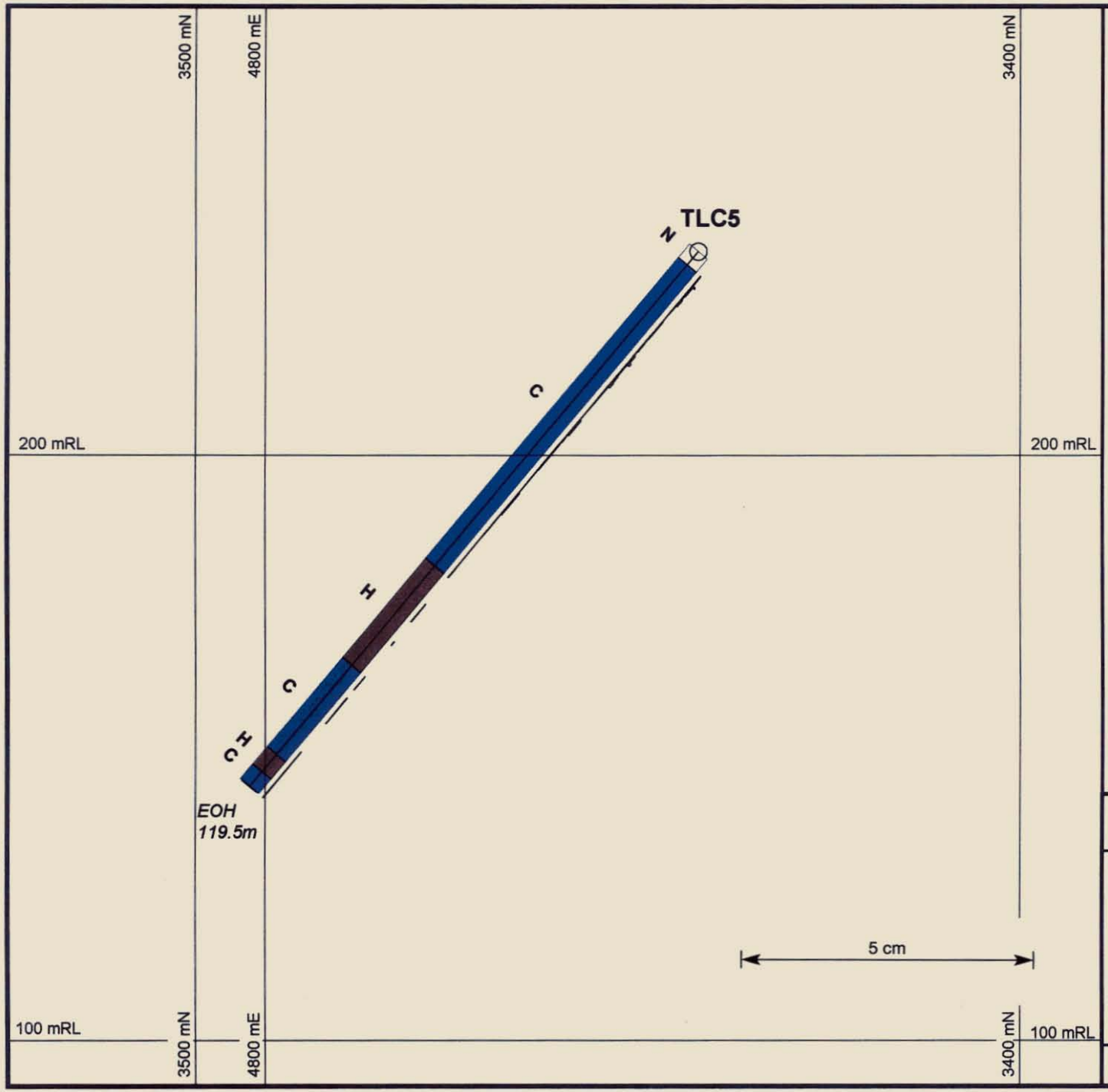
SHOWING LITHOGY AND Zn ASSAYS (1cm = 1%)

COMPILED : M. McK
DATE : 15.03.00
DRAWN : G. Bennett
REVISIONS :
FILE : TL Zn% TLC004

McKeown Mining Pty Ltd

Figure No. 5

660104



LEGEND

N	No core recovered
Y	Clays
H	Shale and siltstone
Q	Quartzite, quartz-sericite rock
D	Dolomite
DM	Dolomite with magnetite
L	Limestone
LC	Limestone with calc-silicate alteration
LM	Limestone with magnetite
LS	Limestone with serpentinite
C	Calc-silicate rock
CM	Calc-silicate rock with magnetite
M	Massive magnetite
MC	Magnetite with calc-silicate mineralisation
MQ	Magnetite with silicate mineralisation
MS	Magnetite with serpentinite
C	Calc-silicate rock
CM	Calc-silicate rock with magnetite
S	Serpentinite
SM	Serpentinite with magnetite
	Breccia
BC	Brecciated calc-silicate rock
BH	Brecciated shale and siltstone
BS	Brecciated serpentinite

SCALE : 1:1000

0 25 50 m

Allegiance Mining N.L.

TENTH LEGION AREA

CROSS SECTION THROUGH

DRILL HOLE TLC5

SHOWING LITHOGY AND Zn ASSAYS (1cm = 1%)

COMPILED : M. McK
DATE : 15.03.00
DRAWN : G. Bennett
REVISIONS :

FILE : TL Zn% TLC005

McKeown Mining Pty Ltd

Figure No. 6

660105

APPENDIX 3

AVEBURY & TRIAL HARBOUR

MAPPING AND SAMPLING

660107

00_4471C

Report on Geological Mapping and Rock Chip Sampling of the Avebury and Trial Harbour Areas - Allegiance Mining NL*; Newnham Exploration and Mini
Reid, R. EL22/1997; EL28/1988

Report on Geological Mapping and Rock Chip Sampling of the Avebury and Trial Harbour Areas, EL's 28/88 & 22/97

Allegiance Mining NL.

Robert Reid, March 2000

(Newnham Exploration and Mining Services)

660108

CONTENTS

Figures

Tables

Plates

Introduction

This report focuses upon the nickel potential of the Avebury and Trial Harbour areas (EL's 28/88 and 22/97), located west of Zeehan, which are Exploration Licences currently explored by Allegiance Mining. Significant nickel intersections in drill holes at Avebury attest to the metal potential of the area.

The Avebury area was mapped at 1:2000 scale during approximately 20 days of field-work during November and December, 2000. Rock chip sampling (352 samples) accompanied geological mapping. Similarly, the Trial Harbour area was mapped at 1:5000 scale during approximately 17 days of field work in January 2000. Rock chip sampling (298 samples) accompanied this mapping. Geological fact and interpretation maps (Plates 1, 2, 9 and 10), as well as rock chip geochemistry plots (Plates 3 to 8 and 11 to 16) are appended. Contractor, Gillian Bennet, completed all map drafting.

Prior to Allegiance taking over the leases, most of the nickel exploration was focused upon the Nickel Reward, located on a hill top several hundred metres east of the coastal town of Remine. The old mine is access via several drives and a shaft. No significant old workings exist in the Avebury area.

Summary

Principal Ni rock chip anomalies at Avebury and Trial Harbour are evident at the Avebury Prospect (max. 1550ppm), Avebury East (1405ppm), Avebury South (645ppm) and Little Henty Riverside (1.1%; Table 1).

Geological mapping in the Avebury and Trial Harbour areas has resulted in a better understanding of the complex distribution of ultramafic rocks and structures. The distribution of ultramafic flows at Avebury is controlled by E-W orientated folding that is disrupted by NNW aligned faults. These structures formed during a N-S compression event, predating intrusion of the Devonian-aged Heemskirk Granite. A major E-W aligned fault separates Cambrian lithologies from younger sediments, south of the Avebury Prospect, and extends west to the coast in the Trial Harbour area. Folding in the Trial Harbour area is similarly E-W orientated, but the major control on lithology distribution is WNW oriented wrench faults. Ultramafic outcrop in this area has been extended SE of the previously known distribution.

At Avebury, Ni concentrations probably formed as a result of primary sulphide accumulation related to processes forming the ultramafics with some upgrading under the influence of granite-related alteration overprints. In the Trial Harbour area, magnetite alteration, related to the Heemskirk Granite, has scavenged Ni from the ultramafics, resulting in anomalous Ni to 1.1% in rock chips from the vicinity of faulted ultramafic contacts (eg. Little Henty Riverside). Granite-related alteration processes possibly formed a Ni depletion zone, adjacent to the Little Henty Riverside anomaly. The demonstrated link between anomalous Ni and magnetite, developed in an alteration system driven by silica-magnetite granite-related fluids, provides as obvious pointer to location of Ni ores at and within faulted ultramafics.

Prospect	AMG mE	AMG mN	Ni (max)	Description
Avebury	354650	5357400	1550ppm	Ultramafic bearing Ni sulphides with strong serpentinite, silica-serpentinite and calc-silicate alteration zones. Significant Ni assays in drill core, eg. 18m @ 2.5% Ni, A011.
Avebury East	355750	5357250	1405ppm	Ultramafic, strong serpentinite and magnetite alteration.
Avebury South	354250	5357200	645ppm	Ultramafic bearing Ni sulphides and native Cu with zones of serpentinite and strong silica-serpentinite alteration.
TH1-Little Henty Riverside	350900	5355250	1.10%	Magnetite and silica alteration at faulted contact between ultramafic and Silurian sediments. Zn to 0.66%. Ni depletion? zone to east.
TH2-Nickel Reward	349100	5356200	6900ppm	Magnetite and silica-serpentinite altered ultramafic, near historical workings.
TH3-?	349000	5355700	5900ppm	Magnetite veining and pyrrhotitic ultramafic, proximal to faulted contact with silicified sulphidic greywacke.
TH4-Remine Fault	348800	5356500	4840ppm	Magnetite veined and silica-serpentinite altered ultramafic at fault contact.

Table 1: Principal Nickel Anomalies at Avebury and Trial Harbour.

Geology

The Ni potential of the Avebury and Trial Harbour areas is closely tied to ultramafics, which are interbedded with volumetrically abundant Crimson Creek Formation, comprising a sequence of greywacke and siltstone with minor conglomerate, lithic wacke and massive basalt. Minor gabbro is spatially associated with the ultramafics. These lithologies are discussed in greater detail below and in Plates 1, 2, 9 and 10 (appended).

North-south aligned faults are common, particularly in the Avebury Prospect area where a faulted structural corridor is interpreted to extend south from the Tenth Legion area. At Tenth Legion this fault zone forms the ill-defined N-S aligned faulted contact between the McGivor Hill Gabbro and Precambrian Oonah Formation. Faults of northerly orientation are not readily apparent at Trial Harbour.

An E-W aligned fault traverses the southern margin of the Avebury area, forming the contact between the Crimson Creek Formation and younger Ordovician and Silurian-aged sediments. The Ordovician rocks comprise siliciclastic conglomerate (Mt Zeehan Conglomerate correlate), quartz sandstone and siltstone, as well as limestone (Gordon Limestone equivalent). The Silurian sediments largely comprise quartz sandstone, a correlate of the Crotty Quartzite (Brown et al., 1994). This structure also extends west to the coast at Trial Harbour, where ultramafics and Crimson Creek Formation greywacke are in faulted contact with Precambrian Oonah Formation sandstones and siltstones. The Trial Harbour area is also disrupted by WNW orientated faults, which locally pinch out and separate Cambrian ultramafics and sediments from Silurian sandstone, calcareous siltstone and conglomerate (Plate 10). The Silurian age of the latter rocks is locally confirmed by the inclusion of crinoid trace fossils.

The Heemskirk Granite, which outcrops to the north west of Avebury and north of Trial Harbour, is a meta- to per-aluminous body comprising layered biotite granite ('Red' granite) intruded by a sill-like more alkalic biotite-muscovite granite ('White' granite). Crimson Creek Formation sediments at Avebury are commonly hornfels and granite-related calc-silicate, silica-serpentinite and quartz-magnetite alteration is evident, suggesting that granite underlies area at depth.

Extensive, Quaternary sedimentation is not readily apparent at Avebury. Whereas, at Trial Harbour old stranded coastal sand and pebble deposits are evident, along with recent dune sands and alluvium. Isolated alluvium is also evident at elevation, such as on a flat spur on the southern flanks of the hill hosting the Nickel Reward. These deposits are not represented on the Trial Harbour Geological Interpretation Map (Plate 10, appended).

Cambrian Greywacke, Lithic-wacke and Conglomerate Sequence

Crimson Creek Formation sediments outcrop extensively within the Avebury area. By definition, the Crimson Creek Formation consists of a turbiditic sequence of volcaniclastic lithic wacke and laminated siltstone and mudstone interbedded with tholeiitic basalt, overlying the Precambrian-aged Success Creek Group with transitional conformity (Brown, 1986).

Brownish to grey medium grained and variably hornfels greywacke and dark grey siltstone units are the most common lithology, with shale and conglomeratic units being volumetrically less abundant. The siltstones are frequently thin bedded, whereas thickly bedded to massive greywacke forms intervals to 40m or more in thickness. These units are very similar to those described by Brown (1986), who reports that throughout the Crimson Creek Formation, the sedimentary units are fairly uniform, immature, turbiditic flows of angular tholeiitic volcanic material, intermixed with a non-volcanic component that varies from place to place but is dominated overall by quartz-rich sedimentary rock grains.

A distinct marker horizon is formed by conglomerate which commonly bears granule-pebble sized clasts (max. small cobble), mostly comprising sub-rounded to sub-angular greywacke and grey chert with sparse rounded quartz and cream siliciclastic lithics. These units are commonly thin (<20m) and facies gradation to lithic greywacke and coarse-grained greywacke is apparent. Rarely, truncated cross beds indicate facing (eg. field location 615; Plate 1).

The abundance of greywacke clasts, enclosing Crimson Creek Formation sediments and proximity to ultramafics are the best criteria to distinguish the Cambrian conglomeratic units from the more recent Ordovician siliciclastic clast-bearing conglomerates near the southern E-W aligned fault. In some cases, identification of the conglomeratic facies is difficult as these permeable units readily accept an alteration overprint. For instance, the massive quartz-magnetite alteration near and west of ZA2, possibly represents pervasive alteration of conglomeratic facies.

Regionally, the Avebury conglomerates possibly correlate with the Red Lead Conglomerate, which Brown (1986) says lies in faulted contact with the ultramafics in the Serpentine Hill area and is locally known to bear serpentinite clasts.

The Crimson Creek Formation in the Trial Harbour area is generally similar to that at Avebury, although finer sedimentary units are more common in the former area. The greater abundance of finer units in conjunction with rare conglomerates suggests a more distal to source and deeper basinal depositional environment was present at Trial Harbour, compared with Avebury.

Ultramafic and Mafic Rocks

Ultramafic rocks at Avebury outcrop over 1.8km of strike, extending outside the area mapped to the west and possibly east. Outcrop is uncommon, apparently confined to fold limbs mostly within 400m of and sub-parallel to the E-W fault in the south.

In hand specimen, the ultramafics are typically massive and strongly serpentinised with medium to coarse grained equigranular texture evident only locally. In many instances, particularly in Comstock Creek, these units are difficult to identify, either as a result of strong calc-silicate alteration overprint or weathering. In these uncertain cases, factors such as proximity to a conglomerate unit and/or elevated Ni indicate that an ultramafic is likely to be present. Peridotite and dunite have been identified in thin sections from drill core. Low concentrations of sulphide (typically <1%) are present, mostly in the form of pyrrhotite with lesser pentlandite and other nickel sulphides.

The ultramafics evident at surface probably represent extrusive lava flow facies since they are commonly thin and overly or are enclosed by Crimson Creek Formation conglomerate and lithic wacke. An extrusive origin is also supported by the presence of spinifex textured gabbro located west of ZA3 at the ultramafic horizon and sulphide concentration at ultramafic margins in drill core; similar to the Western Australian komatiite flows (Hill, et al., 1990). Thus, the ultramafic flows may be partly channelised, with their distribution mimicking that of the conglomerates. The presence of ultramafic feeder intrusions at Avebury is also a possibility, but none have been identified thus far.

A enigmatic plagioclase-rich gabbro outcrops near the fault separating the Denison Group from Crimson Creek rocks in the southern central area, on Comstock Creek. This gabbro may be a later fault-hosted intrusion, unrelated to the ultramafics. Similar gabbros are reported by Brown (1986) intruding ultramafics in the Harman River area, as well as the Huskisson Group in the Pieman River. Alternatively, this feldspathic gabbro may be akin to the thick "scum" of contaminated siliceous melt reported at some Western Australian komatiite channel margins (Hill, et al., 1990).

Basalt is uncommon at Avebury, outcropping in the far north east and northern portions of the mapped area. These basalts are interpreted to lie statigraphically above the conglomerate/ultramafic horizon.

The ultramafics at Trial Harbour are similar to those at Avebury, although they are more widespread and thicker. Spinifex textures are also more common.

Discussion

The association of mafic extrusive lavas with conglomeratic lithologies is evident elsewhere in the Zeehan region and comparison to the Avebury area can be made considering regional correlations. Gabbro outcrops in a creek located 200m west of drill hole ZA1 in the south east of the Avebury area. This fine to coarse-grained (3-5mm) equigranular gabbro lies at the ultramafic horizon, but its origin is unclear (intrusions?). Correlation with the Eocambrian-Cambrian-age McGivor Hill Gabbro, which outcrops over much of the southern-central portion of the Tenth Legion area to the north, is possible considering that the latter is correlated with gabbro intruding the Serpentine Hill Ultramafic Complex (located ~14km ENE). Region-wide, these gabbros form a geochemically distinct group unrelated to a gabbro phase associated with tholeiitic volcanism of the Crimson Creek Formation (Brown, 1989). The McGivor Hill gabbros are geochemically relatively depleted, bearing <0.2% TiO_2 and similarly low titanium tholeiitic basalts interdigitate with Red Lead Conglomerate (lower Dundas Group) in the Black Hill area. It is noteworthy that high magnesian andesite, outcropping 4km west of Zeehan (Stonehenge), unconformably overlies Oonah Formation and is inturn overlain by a sedimentary rock succession with similarities to the Razorback

Conglomerate of the Lower Dundas Group (Brown, 1986). Andesite is logged in ZA2, to the east of Avebury and may correlate with the high magnesian andesites at Stonehenge. The overriding theme is the association of extrusive lavas with conglomeratic lithology.

The ultramafic flows at Avebury and Trial Harbour may have formed in an ocean basin rift environment distal to the Crimson Creek Formation source during the early to middle Cambrian. A relatively quiet environment prior to ultramafic eruption is likely considering that the ultramafics are underlain by a significant thickness of siltstone at both Avebury and Trial Harbour and also by a thin limestone unit at the former (in drill hole A001). Greywacke clast-bearing conglomerates and lithic wacke enclosing the ultramafic could be interpreted as Crimson Creek Formation facies related to rift formation, synchronous with ultramafic effusion/eruption. The dominance of greywacke (Crimson Creek Formation) clasts suggests proximal derivation for the conglomerates, with a minor siliceous clast component of distal-derivation. The main period of Crimson Creek Formation deposition in the area is reflected by the overlying thick accumulation of dominantly greywacke with basalt upper most in the stratigraphy.

There is some possibility that the conglomerate and ultramafic horizons lie at the transitional contact between the Success Creek Group and Crimson Creek formation. As noted above, siltstone is the dominant lithology beneath the conglomerate and ultramafic horizon at both Avebury and Trial Harbour. Quartz-feldspar grain-bearing sandstone, quartz-sandstone and Crimson Creek-like greywacke are interbedded with an enigmatic siltstone unit, located immediately south of the ultramafics at Trial Harbour. This unit is identified as possibly Silurian in Plate 10, but alternatively may represent a transitional contact between Crimson Creek Formation and Success Creek Group sediments, underlying the ultramafics. Structural complications and poor exposure make it difficult to test this hypothesis.

Likely vectors to significant Ni accumulations at Avebury include proximity to ultramafic feeders, the base of flows and channel flow margins, considering analogy to Western Australian examples (Hill, et al., 1990). The ultramafics appear to be thickest at the Avebury Prospect and at South and East Avebury. These thickest zones possibly result from proximity to ultramafic feeders or channel flows. At the Avebury Prospect fold hinge thickening of the ultramafic is also possible. "Overbank" ultramafic flows possibly explain some apparently thin ultramafic occurrences. Examples of this type are evident at the waterfall south of A011 and in the vicinity of ZA2. Elsewhere, outcrop of coarse-grained greywacke and conglomerate, un-accompanied by ultramafic outcrop, may represent environments distal to ultramafic flows. Examples include:- the conglomerate horizon in the upper reaches of Comstock Creek and at 4600Em, 7700N, where coarse grained lithic greywacke sandstone is possibly proximal to the ultramafic horizon. Thus the paucity of ultramafic outcrop north of an E-W line through the Avebury prospect is possibly explained by distance from the lava effusion zone. Note also that lithic and coarse-grained greywacke is more common at the conglomerate horizon to the north, suggesting fining of facies either at channel margins or in a more distal to source setting. This hypothesis possibly points to an ultramafic magma conduit located on or near the E-W wrench fault, which potentially acted as a rift during the early Cambrian.

Structure

Introduction

The Avebury and Trial Harbour areas are structurally complex as a result of the interplay of a number of structural elements, principally E-W and NNW aligned faults with thrust faults and E-W orientated folding. The following describes the structural elements of both areas, resulting in a better understanding through synthesis of the combined data.

Avebury Structure

A poles to bedding plot (figure 1) indicates a fold plunge of approximately 62° to 93°. This may explain the lack of readily identifiable ultramafic outcrop west of the Avebury Prospect in Comstock Creek. Some data from faulted zones in Comstock Creek also indicates the possibility of west plunging folds. Fold wavelengths of approx 300 to 400m are inferred from the distribution of the conglomerate and ultramafic marker horizon. NNW aligned bedding between drill holes A005 and A007 is consistent with approaching a (faulted) anticline fold hinge in the Avebury Prospect area.

Variably spaced joints, which reflect E-W and NNW orientated structural elements, are common. The principal joint sets identified are 115°/95°, 296°/92°, 210°/86°, 330°/85° and 350°/94°. A plot of poles to joints (figure 2) shows the five principal joint sets and their great circles. The relatively tight zone of intersection of the great circles to the principal joints suggests they were formed in the same stress system. The fault planes measured strike approximately E-W, NNW and NE (figure 3), which is similarly consistent with the observed joint patterns. The 330°/85° and 210°/86° joints have orientations consistent with diagonal shear joints related to the 93° fold trend. Cleavage related to folding is not readily recognised but maybe equivalent to the 115° joint set if this was considered to be an axial planar fold cleavage. It is interesting to note that creek orientations in the Avebury area often reflect the three principal structural orientations.

The most obvious structural feature within the Avebury area is a significant E-W aligned fault, traversing the entire southern margin of the area mapped and separating the Cambrian Crimson Creek Formation from younger Ordovician and Silurian sediments. Interpreted iron-oxidised cataclasite breccias related to this fault are located at several sites, and the faulted outcrop distribution (eg. field locations 693 & 659) and measured joint/fault planed suggest the fault is reverse, shallow to moderately (~30 to 40 degrees) south dipping. Weak supporting evidence for the inferred south fault dip is the exotic occurrence of sparse quartz-sandstone (Ordovician) float in the vicinity of grid 5500E, 7150N, located over Cambrian gabbro outcrop north of the fault. This rock could be an exhotic derived from stranded Quaternary gravels, although such deposits have not been observed in the field.

Thrust faulting is indicated by near horizontal and shallowly dipping stria on undulating surfaces at three locations in Comstock Creek. Stria are mostly shallowly south dipping (eg. 20°/235° and 35°/175°) with few shallow northerly plunging stria recorded. A significant parting (joint) parallel to the striated surface orientation is evident at the northern most stria location. The throw on these faults could not be determined, but is likely to be minimal, since little rock type difference between the top and bottom plates is evident at the northern most thrust fault expression.

Wrench faults of both sinistral and dextral interpreted offset of up to 100m are mapped in the Avebury area, particularly passing through the prospect. A reverse movement component is also likely on these faults. Repetition of fold closures (Avebury and Avebury East) on either side of the principal NNW aligned fault zone suggests reverse fault activation may have occurred, progressively raising fault-bound blocks from the west to east. Slickensides on subsidiary faults in the vicinity of the collar of A0011 are consistent with a high angle reverse fault of approximately N-S orientation, which is coincidentally aligned to the creek trace south of the collar area. Evidence of oblique fault slip is also evident at a small number of locations elsewhere in the Avebury area.

A principal exposure of a NNW (170°) aligned fault is found in the northern portion of Comstock Creek. The fault is evidenced by a clearly defined plane/joint surface and joint patterns immediately up stream have orientations consistent with reidel/conjugate shear sets related to the fault. Rock from the fault plane displays weak boudinage of lithic clasts/grains and silica-serpentinite veining. The boudinage suggests that the fault was relatively deep

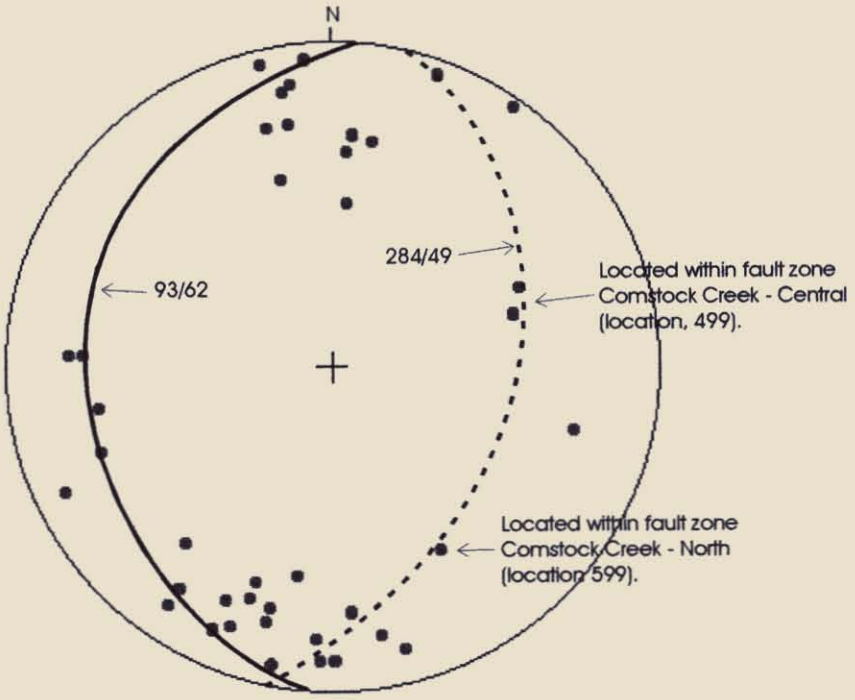


Figure 1: Poles to bedding at Avebury.

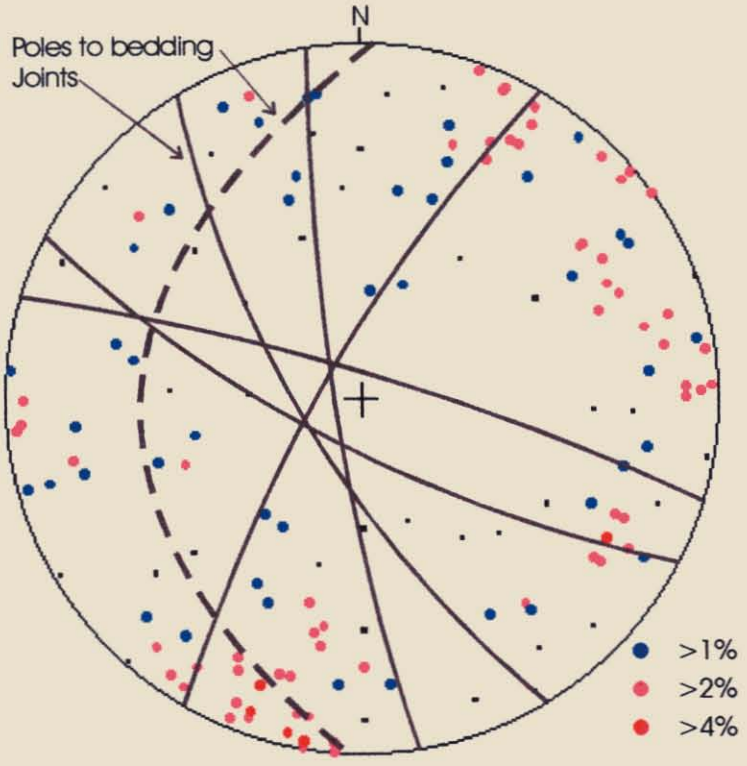


Figure 2: Poles to joints at Avebury.

seated, within a ductile to near ductile strain environment. Silica-serpentinite veining trends parallel to sub parallel to the joint surface and only displays boudinage-like form locally, which suggests that the veining was partly contemporaneous with, or later than the N-S faulting event. Another fault of similar orientation is evident 100m to the east. This fault is indicated by a rock type change from medium grained greywacke to siltstone; joint orientations similar to that above; and by the marked change in creek orientation.

Cursory mapping between the Avebury and Tenth Legion areas suggests that the NNW trending faults are an extension of the N-S break through the Tenth Legion Area. Similarly, a magnetic anomaly is aligned NNE from the eastern end of the main magnetic anomaly through the Avebury area. The NNW aligned faults form a relatively wide faulted zone through the core of the Avebury Prospect, which may exceed 200m in width. The N-S aligned structural break through the Tenth Legion area is similarly wide.

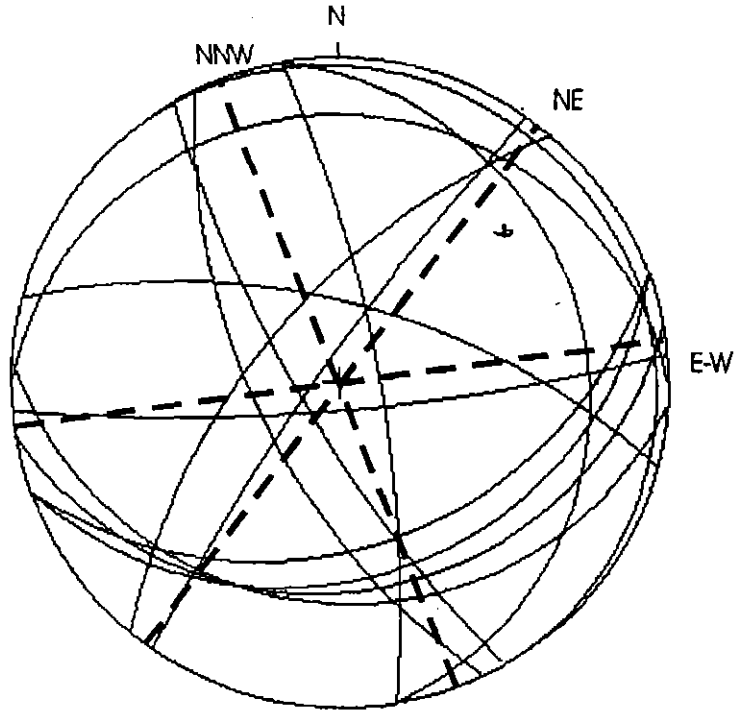


Figure 3: Plot of great circles for faults showing principal fault trends; Avebury.

Trial Harbour Structure

Calculated fold trends and plunges in the Trial Harbour area are similar to that at Avebury. The fold trends and plunges calculated for the principal lithologies are:-

- Precambrian 70° to 100°
- Cambrian Sediments (Crimson Creek Formation) 39° to 94°
- Silurian Sediments (Su) 21° to 108°
- Silurian Sediments (Ssc) 28° to 120°

A poles to bedding plot differentiating the various mappable units in the Trial Harbour area is shown in figure 4. This plot shows relatively little data scatter for the Silurian and Ssc sediments indicating that the later unit of questionable origin is probably of Silurian age. The data are widely scattered for Precambrian readings which suggests that two or more fold generations are present. The Cambrian Crimson Creek Formation bedding readings are similar to the plot for the Avebury area and folds plunging 39° to 94° are interpreted. A

second fold generation, perhaps similar to that reflected by fault bounded bedding readings at Avebury, is indicated by two points only.

These observed fold plunges are similarly reflected by small scale parasitic folds (figure 5) plunging 30° - 70° to 100°. A further two fold trends of approximately SW and NW orientation were also measured. The latter was a weak open fold hinge measured in Silurian sediments. The three fold orientations could be considered to be evidence of multiple deformation episodes, however, all fold generations could possibly have formed in response to an approximately N-S compression episode (see synthesis).

A plot of poles to joints (figure 6) shows that 110 to 115° aligned steeply north and south dipping joints are prevalent, similar to at Avebury. These measurements correspond to the dominant fault direction. Shallowly dipping joints related to thrust faulting of similar orientation are also common and were measured in the vicinity of a recognised thrust on Cumberland Creek and in foreshore ultramafic exposures. Evidence for Northerly aligned faults in the field is rare. Outcrop distribution suggests dextral offset for an interpreted NNE aligned fault south of the Little Henty River (351500mE, 535500mN) and figure 6 gives a weak indication of the presence of such structures.

Major WNW aligned fault zones form the contact between major lithologies in the Trial Harbour area (Plate 10). The deformation was mostly brittle, but locally brittle-ductile in nature. Significant fault gouge breccia formed in a brittle regime is evident at many of these contacts, particularly within the less competent and only moderately lithified Silurian sediments where the zone of disturbance is possibly up to 50m wide locally. These major fault or tectonic melange zones comprise highly faulted and deformed rocks with zones of cataclasite/fault breccia, which commonly bear highly altered large heterolithic clasts and blocks. Ductile style deformation is locally evident as boudinaged sedimentary beds (eg. 348000mE, 5356500mN) and schistose zones.

Movement indicators on micro-faults related the northern fault show dextral wrench offset (eg. Field locations 759, 765 & 1127), although sinistral offset is indicated in one instance. Sinistral offset with oblique slip is also shown by quartz-stria on a minor fault within Silurian rocks in the south of the area mapped (field location 1108).

The WNW aligned fault breccias at least in part pre-dated granite intrusion, as shown by the overprinting silica and magnetite alteration that is readily accepted by these highly permeable structures. Later wrench fault activation, following granite intrusion is also possible considering evidence from the Cumberland falls area. Fine to granular cataclasite and strongly altered Cambrian Crimson Creek Formation greywacke is evident in the wrench fault zone east of Cumberland Falls and underlies Precambrian Oonah Formation, with thrust fault contact. Strongly foliated, deformed and quartz veined siliceous sandstone and siltstone (Oonah Formation) with monomict siltstone-clast breccia is evident in outcrop along strike north of the falls and as creek alluvium below. This expression of the wrench fault lies well above the thrust exposure and thus the wrench fault may have activated following thrust faulting to form the monomict Oonah Formation -clast breccia.
Further evidence in the form of silicified breccia (field location 1095, 350150mE, 5355495mN) bearing sub-angular to sub-rounded silica-magnetite clasts also indicates that alteration was synchronous with and/or pre-dates at least one fault movement.

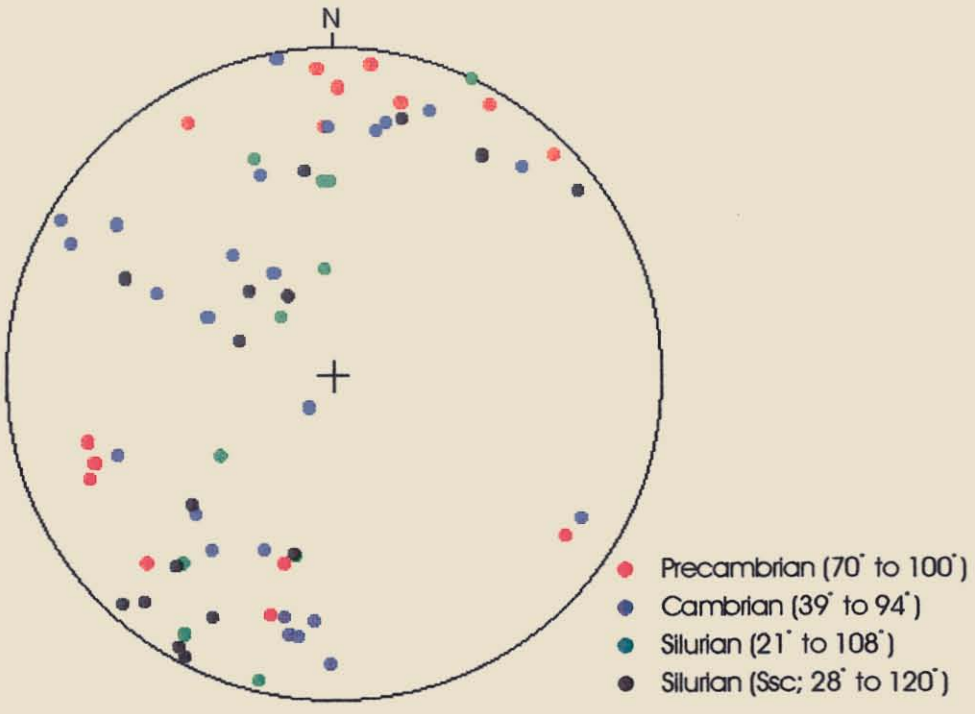


Figure 4: Poles to bedding; Trial Harbour.

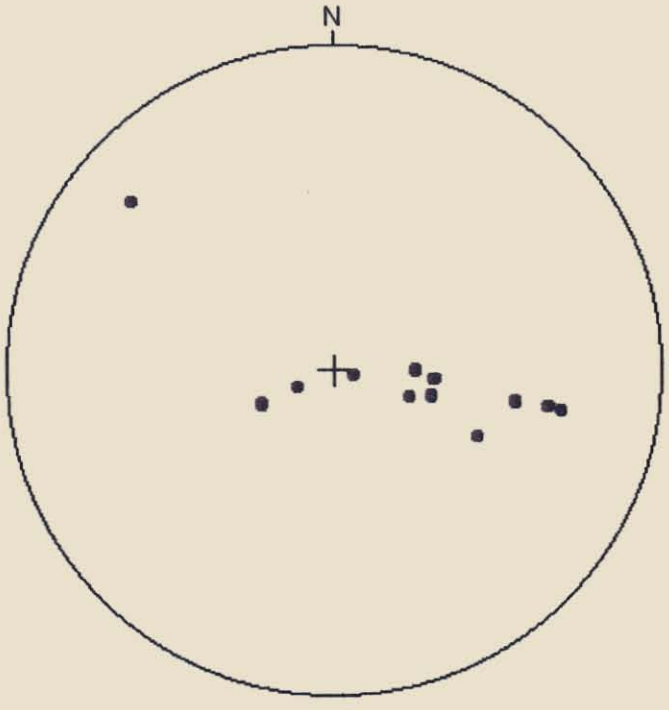


Figure 5: Minor folds; Trial Harbour.

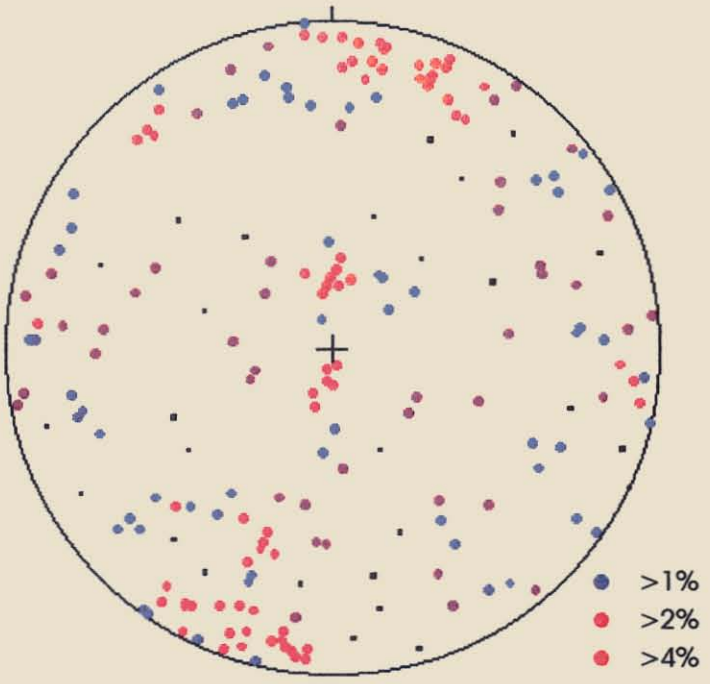


Figure 6: Poles to joints, Trial Harbour.

Structural Discussion and Synthesis

Many of the diverse structures observed in both the Avebury and Trial Harbour areas were probably formed as a result of an approximately N-S orientated compressional regime that pre-dated Devonian granite intrusion. Structures consistent with those predicted in theoretical models developed for homogeneous media under simple N-S compression (Badgley, 1959) are:-.

- Both north and south plunging thrust faults.
- NNW aligned wrench faults.
- E-W aligned fold hinges.
- NW and NE aligned secondary fold axis'.
- Significant E-W aligned reverse fault between the Cambrian and Ordovician sediments at Avebury.
- The 330 ° /85 ° and 210 ° /86 ° joints have orientations at both Avebury and Trial Harbour are consistent with diagonal shear joints related to the 93 ° fold trend.

A transpressional strike-slip (wrench) regime was also active pre- and possibly post granite-intrusion and a rift environment (possibly providing conduits for ultramafic intrusion and eruption) may have been active during the early Cambrian. Later faults may have re-activated the postulated rift structures.

From a regional perspective, a topographic lineament exhibiting sinistral fault offsets (known as the Linda Disturbance) extends from Trial Harbour, passing through Mt Lyell, to Marion Bay in the south east of Tasmania (Rice, 1994). The WNW orientated faults mapped at Trial Harbour are possibly representative of this structure. The relationship of the Avebury to Trial Harbour wrench fault to this structure is unclear.

Alteration and Mineralisation

Granite-related alteration and mineralisation at both Avebury and Trial Harbour is similar in many respects that in the Tenth Legion area (see Reid, 2000). The variety of mostly granite-related alteration styles evident in these areas includes cream coloured calc-silicate, pale green silica-serpentinite and silica-magnetite pervasive alteration styles. Silica-pyrite replacement style alteration is locally evident. Magnetite in semi-pervasive, massive vein and disseminated form is also evident, whereas massive magnetite is uncommon. Quartz veining and tourmaline are sparsely scattered near the southern margin of the Heemskirk granite in the Trial Harbour area. These granite-related alteration styles commonly overprint fault zones and at Avebury may have upgraded or modified primary Ni mineralisation, related to processes forming the ultramafic. See geological interpretation maps (Plates 2 & 10) for locations of significant alteration zones and geological fact maps (Plates 1 & 9) for more detail.

The pervasive calc-silicate alteration has skarn-like form, being commonly evident as bands selectively pervading along bedding within sediments as well as within and adjacent to ultramafic rocks.

Pervasive silicification of cream to grey colour, with disseminated commonly coarse grained magnetite is interpreted to be derived from granitic fluids, infiltrating porous zones including faults and conglomerates in particular. Relict conglomeratic textures and sandstone selvages are locally evident within silica-magnetite altered zones. Alteration zonation from pervasive silica-magnetite to more distal semi-massive magnetite, silica-magnetite veins and massive magnetite veins is likely. For instance in the vicinity of a waterfall east of Remine (field location 931), alteration is apparently zoned from silica-serpentinite-magnetite proximal to the fault, outward through silica+/-serpentinite-sulphide-magnetite to magnetite+/-silica-sulphide. Chalcedony in pervasive and vein form is uncommon and may reflect a distal alteration product related to the silica-magnetite fluids.

The brownish colour of silica-magnetite alteration at Trial Harbour differs slightly from that at Avebury. The brown colour is possibly due to contamination via mixing with country rock. Pervasive silica-serpentinisation is another widespread alteration type that possibly results from scavenging of serpentinite from the host rocks by silica-magnetite+/-sulphide fluid. A possible example of serpentinite scavenging by silica-rich fluids is at 4400E, 7100N on the Avebury grid, where grey silica-magnetite alteration lies near silica serpentinite alteration within probable ultramafic. Thus silica-serpentinite alteration potentially masks ultramafic rocks in outcrop.

Serpentinite alteration takes two main forms; within the ultramafics massive serpentinisation is evident and elsewhere, massive serpentinite veins are locally common along joint planes. Minor sulphide and quartz accompany the later in some instances. The serpentinite veins possibly represent mobilisation of serpentinite during deformation and low grade metamorphism, with serpentinite originating from alteration of ferromagnesian minerals within the ultramafics and possibly from the partly basalt derived Crimson Creek Formation greywacke. Silica-serpentinite alteration clearly overprints massive serpentinite as does grey silica-magnetite veining at field location 1001, indicating that serpentinite formation was at least in part earlier than granite intrusion.

A bright apple green mineral, disseminated as flecks and euhedral acicular crystals, is an isolated mineral occurrence at a faulted ultramafic contact in the Trial Harbour Area. This mineral is considered to be annbergite (Nickel Bloom) with the chemical formula $2[Ni_3(AsO_4)_2.8H_2O]$, the corresponding nickel mineral to Erythrite (Cobalt Bloom, $2[Co_3(AsO_4)_2.8H_2O]$). Annbergite is also known from the Leslie Mine, south of Melba Flats.

Geochemistry

The geochemistry of the Avebury and Trial Harbour areas are described separately. Geochemical sampling included both composite and grab rock chip samples. The composite samples comprised at least 4 chips and more typically up to 15 chips from outcrop or float in the general sample site vicinity. The rationale here being to obtain an average or more truly indicative analysis for the rock sampled. Grab samples of particularly strong mineralisation or specific alteration and mineralisation occurrences allowed characterisation of metal content within a given rock.

Composite rock chip sampling in some cases allowed near complete geochemical sections to be assessed in conjunction with the geology. For example, Comstock Creek provides a near complete rock exposure trending N-S through the Avebury area, resulting in excellent geological and geochemical control.

A total of 352 and 345 rock chip samples were collected from Avebury and Trial Harbour respectively. The samples were analysed for Ni, Cu, Pb, Zn and As (Plates 3 to 8 & 11 to 16, appended) at Analabs, Burnie.

Avebury Geochemistry

The principal Ni geochemical anomalies identified by rock chip sampling at Avebury are listed in table 1 and illustrated in figure 7. The peak Ni analysis within the ultramafics at Avebury was 1405ppm from Avebury East. Other significant Ni anomalies were 1550ppm and 1355ppm from silica-magnetite and silica-serpentinite alteration above the A001 and A003 drill holes. Anomalous Zn and Pb analysis from rock chip samples at Avebury are located at or in the vicinity of faults. Peak analysis of 2.32%Pb and 0.75% Zn form a significant anomaly associated with cream/grey strong pervasive silicification, accompanied by disseminated magnetite in the north east of the Avebury area (figure 7, Plates 5&6). Elsewhere, Zn and Pb anomalous analysis reach 6500ppm and 1230ppm respectively and most likely result from granite-related fluids, similar to in the Tenth Legion area. Cu distribution is apparently granite-related as well as lithogeochemical, since native copper was identified in ultramafic at South Avebury. Within the ultramafics Cu reaches 446ppm and a peak Cu anomaly of 3280ppm (17668) was obtained from a chert bearing 2% pyrrhotite with silica veining and pervasive silica-serpentinite alteration.

A statistical summary for Ni related to various lithologies and alteration types at Avebury is given in Table 2. It is notable that overall Ni in the ultramafics was not significantly higher than that analysed from the gabbros and basalts, as well as other lithologies.

Histograms for nickel were assessed to determine background and anomalous levels within various lithologies (figure 8). Apparently normal Ni distributions in the range of 0 to 250ppm are expressed by all lithologies, with the siliceous Ordovician and Silurian sediments not unexpectantly being lower in Ni overall, with the obvious exception of anomalous values in altered rocks. Evidently Ni in rock chips at Avebury can be considered anomalous for levels of as little as 250ppm or more.

Alteration types were plotted to gauge the potential for leaching of Ni by granite-related fluids (figure 8). Ni was found to express an almost normal distribution of low analysis up to 150ppm in most quartz-magnetite and calc-silicate altered rocks, with some anomalous values. Silica-serpentinite altered rocks display a spread of Ni values and a greater number of anomalous values. Although the sample size is statistically very small, the observations above suggest that scavenging of Ni by granitic fluids occurs and is particularly evident within silica-serpentinite altered rock; the serpentinite within which is most likely largely derived via leaching of ultramafics, perhaps by a precursor silica-magnetite fluid.

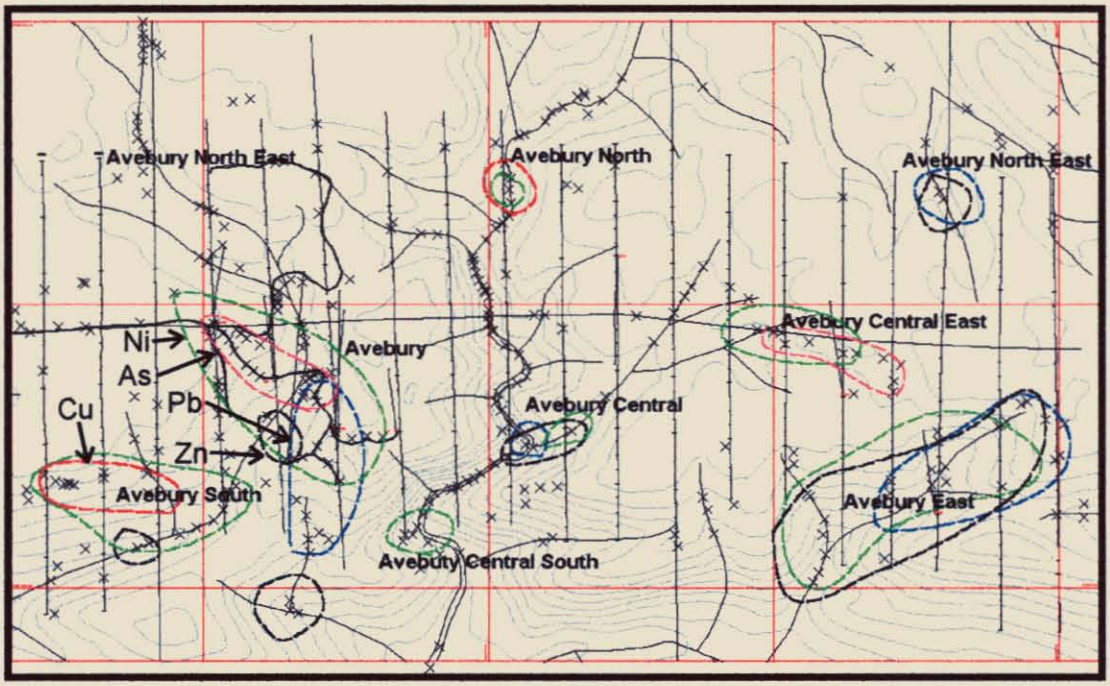


Figure 7: Principal rock chip geochemical anomalies and sample locations, Avebury (Ni & Cu mostly >200ppm, Pb & Zn mostly >500ppm).

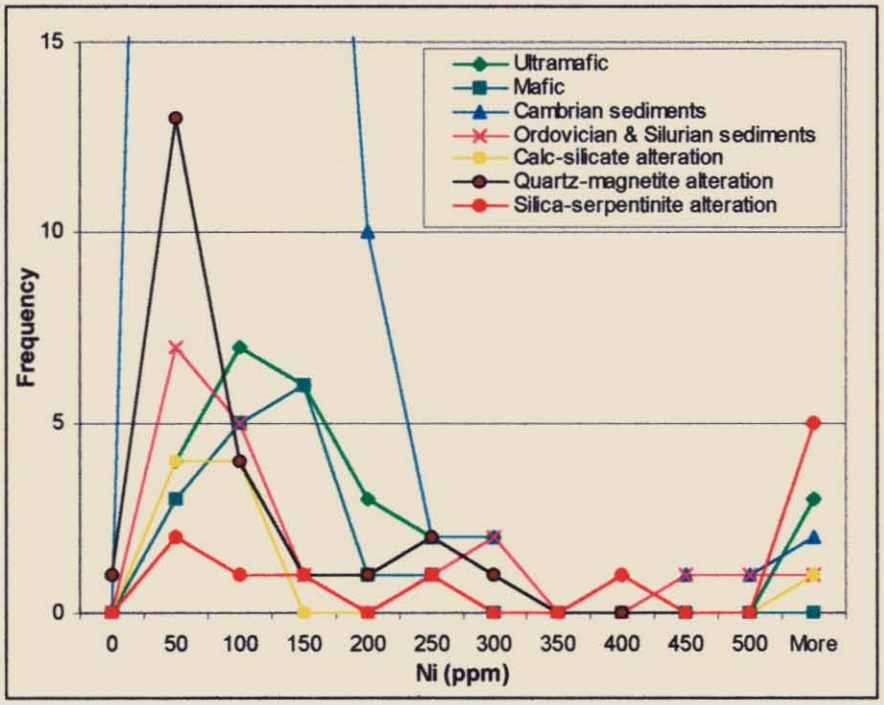


Figure 8: Frequency histogram for various lithologies and alteration types, Avebury (352 samples).

Ni (ppm)	Esm	Eba/Ebag	Ets	O/S	Dcs	Dqm	Dss
Mean	208	101	85	125	160	250	435
Standard Error(of the mean)	53	14	5	35	69	81	123
Median	114	103	71	57	55	45	355
Standard Deviation	281	56	75	147	228	430	410
Range	1373	212	853	491	750	1553	1342
Minimum	32	20	8	6	15	-3	13
Maximum	1405	232	861	497	765	1550	1355
Count	28	16	233	18	11	28	11

Table 2: Descriptive statistics for Ni in various lithologies and alteration types at Avebury (Esm = ultramafic, Eba/Ebag = basalt/gabbro, Ets = Crimson Creek Formation sediments, O/S = Ordovician/Silurian sediments, Dcs = calc-silicate alteration, Dqm = silica-magnetite alteration, Dss = silica-serpentinite alteration).

Probable Ni scavenging by granite fluids is further illustrated at Avebury East (near ZA3) where elevated values to 497ppm accompanied by anomalous Zn (to 1055ppm) are returned from weakly silica-serpentinite altered Ordovician conglomerate (Plate 3 & 6). Anomalous Ni to 1405ppm in strongly serpentinised and ultramafic rocks located immediately to the east may also reflect enrichment. The correspondingly low Ni (<151ppm) in gabbro from this area possibly reflects a Ni depletion zone.

Trial Harbour Geochemistry

Ni concentrations within the ultramafics at Trial Harbour range widely up to 1.1% and elevated analysis above 2000ppm are common (Plate 11). Two distinct peaks in the Ni histogram distribution are evident at <500ppm and from 2000 to 4000ppm (figure 9), with analysis of greater than 5000ppm clearly being highly anomalous. The 2000 to 4000ppm peak could be subdivided into two Ni distributions giving a total of three Ni peaks, but the sample size is statistically too small for confident analysis. The Ni histogram distribution possibly reflects a primary lithogeochemical background associated with two (or more) geochemically different ultramafic generations, but may also reflect enrichment and depletion peaks developed as a result of granite alteration. Note that Ni depletion zones are recognised in the vicinity of many world-class Ni deposits (Naldrett, 1997). Ultramafic samples located adjacent to and east of the Little Henty Riverside anomaly all returned very low Ni, ranging from -3 to 239ppm with an average of 112ppm. Considering that many ultramafic rock chips returned 1000 to 2000ppm Ni, it is possible that a Ni depletion zone occurs east of the Little Henty Riverside anomaly. Alternatively, the widespread elevated Ni in ultramafic near Remine may be granite enhanced within a broad alteration halo.

Near normal Ni histogram distribution is exhibited by sediments at Trial Harbour, with Ni typically ranging up to 100ppm in Silurian and Precambrian sediments (figure 10). Ni within the Cambrian Crimson Creek Formation sediments is typically less than 200ppm with few anomalous values to 1060ppm. The slightly elevated Ni in the Cambrian sediments relative to the Precambrian and Silurian sediments (figure 10) may partly reflect the presence of Ni in basalt detritus within the Crimson Creek Formation. Both Precambrian Oonah Formation and Silurian sediments similarly yield few anomalous Ni values. For example Oonah formation sediments yielded 1810ppm Ni from a semi-pervasively magnetite altered sample located at 347980mE, 5356540mN (30054). Ni analysis greater than 200ppm can be considered anomalous for the sediments (Figure 10).

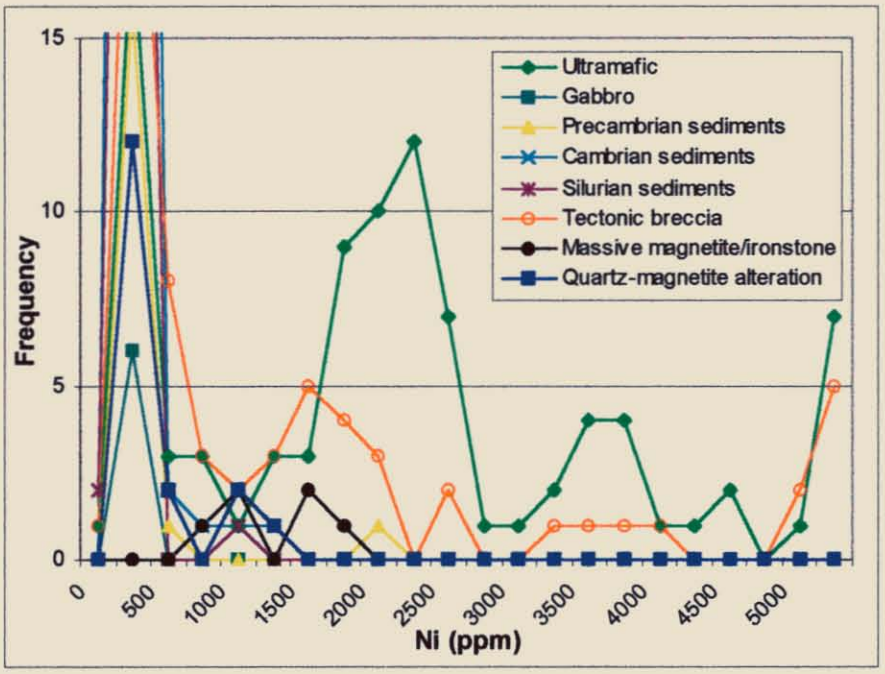


Figure 9: Frequency histogram for various lithologies and alteration types, Trial Harbour.

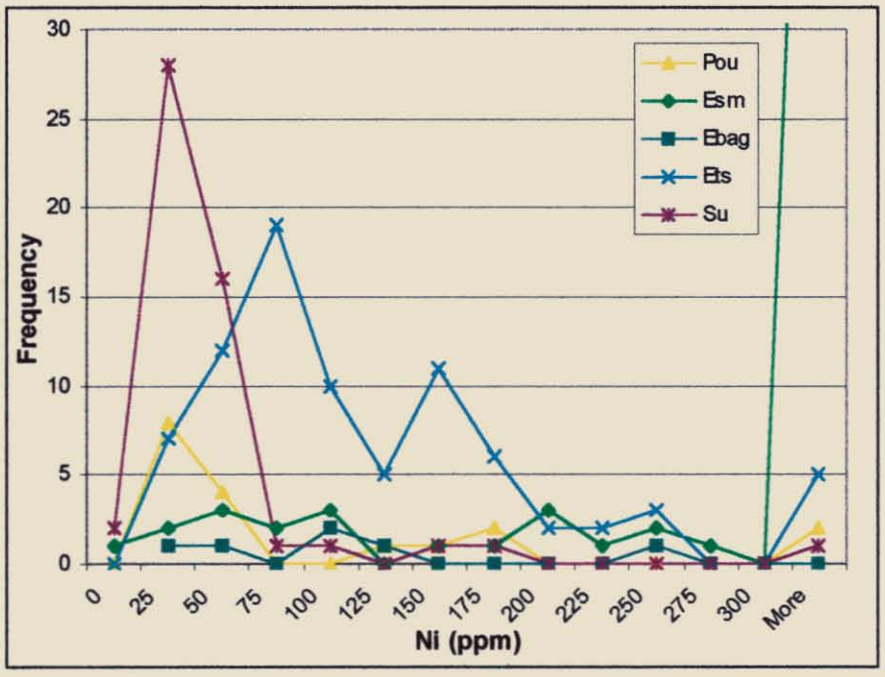


Figure 10: Frequency histogram comparing various lithologies, Trial Harbour.

The significant 1.1% Ni anomaly from what is termed the Little Henty Riverside Prospect (Table 1) was accompanied by numerous Ni anomalous samples including 1.0% Ni and an average of 0.5% Ni from 12 samples. The strongest Ni mineralisation occurs in serpentinised ultramafic bearing up to 40% semi-pervasive and veined magnetite. Weaker but still anomalous Ni to 4970ppm is evident in a strongly silicified and variably magnetite veined fault zone adjacent to the ultramafic. A strong correlation between Zn (max. 0.66%) and Ni

assays, combined with magnetite alteration suggests that this mineralisation is similar to that forming Daverns (Zn) in the Tenth Legion area.

Magnetite-rich granite-related fluids appear to scavenge Ni from the ultramafics and therefore may upgrade existing Ni mineralisation within the ultramafics. Nickel concentration in massive magnetite/ironstone ranges from 533ppm to 1745ppm, whereas Ni in the related pervasive quartz-magnetite alteration ranges up to 1195ppm, but is mostly less than 200ppm. Tectonic/fault breccia samples, which are commonly strongly silicified and magnetite altered, display a similar Ni histogram distribution pattern to that of the silica-magnetite altered samples (figure 9). Assuming that little or no Ni is introduced by granite-related fluids, these elevated Ni values probably result from scavenging by granitic fluids. This interpretation is supported by a strong correlation between elevated Ni and Zn assays (figure 11), considering that magnetite-Zn mineralisation is related to the Heemskirk Granite. It is also noteworthy that magnetite altered ultramafics are commonly Ni anomalous, whereas magnetite altered sediments rarely contain elevated nickel.

The influence of granite-related alteration on Ni concentration is evident in a cross-section through fault-bounded silicified and magnetite altered ultramafic on the NW side of the Little Henty River (~350600mE, 5355300mN). Here, Ni ranges from 372 to 1755ppm and is clearly enhanced at the faulted margins reaching 3910ppm (Plate 11). Similarly, to the south east across the river at the Little Henty Riverside anomaly, Ni at the northern faulted contact of the ultramafic is highly anomalous ranging from 1800ppm to 1.1%. Anomalous Zn, Pb and Cu are also concentrated a fault zones.

Overall, it appears that anomalous Ni correlates with magnetite alteration, whereas weaker Ni is evident where silica-magnetite alteration is present. It is likely that Ni concentrates at or just outside the leading edge of sil-magnetite alteration, particularly within ultramafics at faulted contacts.

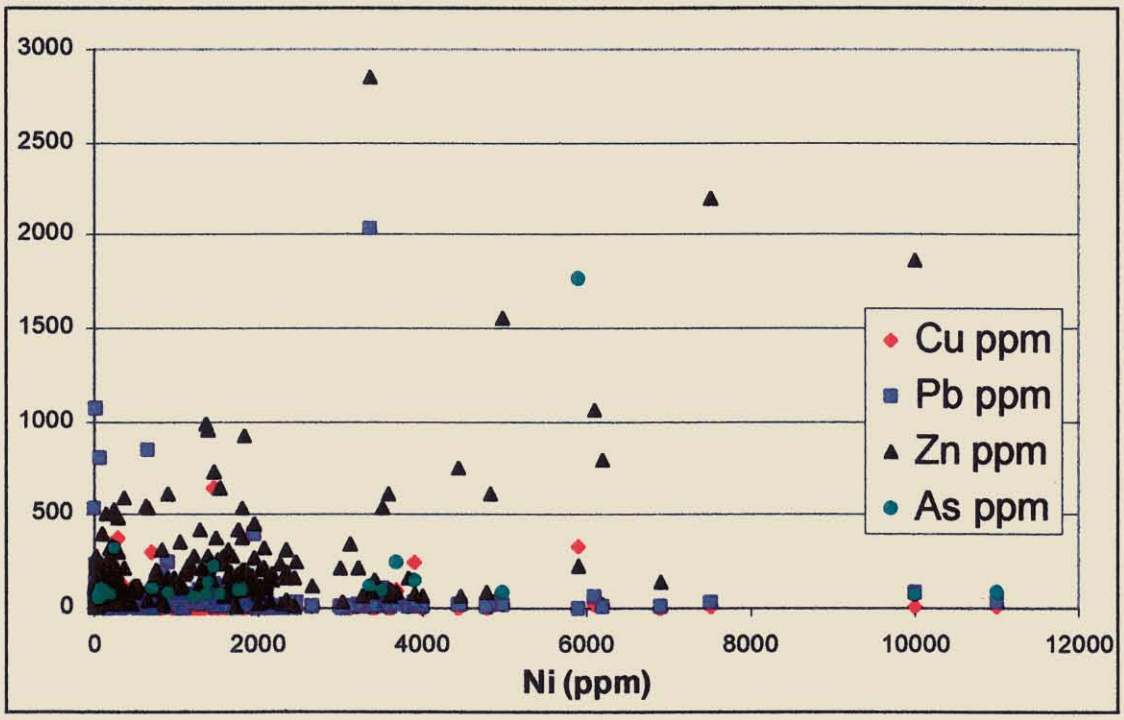


Figure 11: Comparison between Ni and Cu, Pb, Zn and As showing a clear correlation between elevated Ni and Zn analysis at Trial Harbour.

Model for the formation of Ni Mineralisation at Avebury and Trial Harbour
Key features of the geological history relevant to forming Ni accumulations at the Avebury and Trial Harbour Ni deposits are:-

- An early to middle Cambrian rift environment forming conglomerates within basal? Crimson Creek Formation, with associated ultramafic lava effusion.
- Nickel-rich sulphide accumulations formed in association with channelised ultramafic flows and possibly intrusions.
- A north-south orientated compression event forming E-W aligned folds as well as reverse and thrust faults during the Devonian.
- Granite intrusion with related alteration and mineralisation upgrading existing ultramafic-hosted Ni mineralisation. Exsolved granitic fluids ranged from proximal (hottest) to distal (coolest) formed pervasive calcium-silicate and pervasive silica +- disseminated and veined magnetite +- Zn alteration grading to distal pyrite/pyrrhotite veins. Silica-magnetite alteration scavenged serpentinite and Ni producing pervasive and veined silica-serpentinite alteration and magnetite-bearing Ni ores.
- Re-activation of existing faults with wrench movement.

References

Badgley, P. C., 1959. Structural Problems for the Exploration Geologist. Harper & Brothers. New York. pp 301.

Brown, A. V., 1986. Geology of the Dundas-Mt Lindsay-Mt Ramsay area. Bull. Geol. Surv. Tasm. 62.

Brown, A. V., 1989. Eo-Cambrian-Cambrian. *In* Geology and Mineral Resources of Tasmania (Eds C. F. Burrett and E. L. Martin). *Geol. Soc. Aust. Spec. Publ.* 15: 47-83.

Brown, A. V., Findlay, R. H., Goscombe, B. D., McCleneghan, M. P., and Seymour, D. B. 1994. Zeehan. Geological Atlas 1:50000 Series. Mineral Resources Tasmania.

Hill, R. E. T., Barnes, S. J., Gole, M. J., and Dowling, S. E., 1990. Physical volcanology of komatiites and disseminated nickel deposits of the Norseman-Wiluna Greenstone Belt. *In* Ho, S. E., Glover, J. E., Meyers, J. S., and Muhling, J. R., (Eds), 1990. Third International Archaean Symposium, Perth 1990, Excursion Guidebook. Geology Department & University Extension, The University of Western Australia, Publication 21, 362-397.

Meinert, L., 1994. Codes Manual Part 6: Copper-gold skarn deposits.

Naldrett, A. J., 1997. Key factors in the genesis of Noril'sk, Sudbury, Jinchuan, Voisey's Bay and other world-class Ni-Cu-PGE deposits: implications for exploration. Australian Journal of Earth Sciences. p 283-315.

Reid, R. O., 2000. Report on Geological Mapping and Rock Chip Sampling of the Tenth Legion Area, EL22/97 & EL2/96. In house report Newnham Exploration and Mining Services for Allegiance Mining NL.

Rice, P. J., 1994. Topographic lineaments: Unlocking buried mineralisation in southeastern Tasmania. Contentious issues in Tasmanian geology: a symposium. Geology Society of Australia, Tasmania Division. p113-114.

Appendices

660129

660130

Appendix 1: Avebury Sample Catalogue

Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
17301	400	354725	5357380	grey/gn calc-sil(w/m) slst/fg gwacke, mag(vw, dss)
17302	401	354733	5357282	wed sed? crm calc-sil?(w/m), mag dss(w, 4%), FeO frac fill vnd
17303	401.1	354732	5357276	wed crm &tan mg arkose/gwacke, wed mauve semi-perv altn zones(w)
17304	401.2	354732	5357276	lht bn/gn sil-serp(w), serp vnd?, mg gwacke
17305	402	354740	5357190	slst, dss &vnd mag(m)
17306	403	354720	5357222	slst, serp-vnd(w/m), fault breccia 25cm wide
17307	403	354720	5357222	serp vein
17308	404	354646	5357226	hm mg gwacke, serp vnd(w)
17309	405	354660	5357228	wed fg gwacke/slst?, serp-vnd(w), mag(vw), hm-perv(w/m)
17310	406	354674	5357232	lht bn slst/chert, sil(m), serp-sil vnd(1%) and crm/pgn clac-sil altered fg sed
17311	410	354700	5357250	fg/mg arkose/gwacke , bk serp/FeO vnd(w/m)
17312	412	354706	5357320	mag(patchy and vnd,m/s) gwacke sst
17313	413	354700	5357329	fault breccia/ferruginous scree?
17314	414	354696	5357342	dgn Um? perv mag(m/s), calc-sil(m/s), serp(m), pyrrh(tr-0.5%), aspy(tr)
17315	414	354696	5357342	ironstone lag
17316	415	354712	5357376	perv calc-sil(s), mag(s), serp(w)
17317	417	354704	5357382	grey sil(s) semi-pervasive overprint on pgn sil-serp(w/m) altered sed?
17318	417	354700	5357380	pgn sil-serp(s), semi-pervasive and vnd grey sil/q(w), mag(vw)
17319	417	354694	5357378	pgn sil-serp(s), dss and vnd mag(vw) and spec hm, sparse pgn radial fibrous act? xtals
17320	417	354688	5357372	pgn sil-serp(s) with perv/semi perv zones of grey sil with sulphide(tr)
17321	417	354684	5357370	pgn sil-serp(s), grey sil zones(w) with py(tr), radial fibrous flat xtal growth-serp?(w/m)
17322	417	354680	5357366	pgn sil-serp(s), grey sil zones(w) with py(tr), radial fibrous flat xtal growth-serp?(w/m)
17323	417	354688	5357372	grey sil zone(s) with py/pyrrh(0.5%), relict pgn sil-serp altn
17324	417	354700	5357380	crm&pale pink&pgn carb ppt
17325	418	354678	5357344	gn calc-sil(s), mag(m, dss), pyrrh(tr), serp vnd
17326	419	354676	5357336	calc-sil(m), serp(w/m), Ax(tr?), mag(w/m), dss
17327	420	354664	5357323	lht calc-sil(m), serp(m), mag dss, banded lam? sed
17328	422	354622	5357270	gn calc-sil(w/m) perv with vnd(w), serp?(w) banded slst?
17329	423	354614	5357302	pgn banded? slst, calc-sil(w)
17330	424	354600	5357374	lht bn fg sst, calc-sil(tr)
17331	425	354588	5357384	wed gwacke
17332	426	354576	5357396	wed fg/mg gwacke& slst
17333	426	354576	5357396	grey mg gwacke
17334	427	354554	5357420	grey mg gwacke
17335	428	354546	5357440	grey mg gwacke

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Sample No.	Field No.	East (AMG)	North (AMG)	Description
17336	429	354534	5357450	fg gwacke, calc-sil(tr)
17337	430	354520	5357466	lht bn mg gwacke, crm calc-sil-vnd(w)
17338	430	354520	5357466	semi-msv bk tour(euhedral-acicular) with crm/grey sil veining
17339	431	354558	5357456	fg&mg gwacke with grey slst
17340	432	354566	5357450	grey fg gwacke, crm calc-sil(w/m)
17341	433	354576	5357442	fg/mg gwacke& slst
17342	433.5	354600	5357430	fg/mg gwacke& slst
17343	434	354616	5357444	fg gwacke & slst, streaky calc-sil(m)
17344	436	354630	5357490	lht bn/grey fg/mg gwacke& slst
17345	437	354630	5357502	dgrey mg gwacke, py(tr-0.5%, dss)
17346	438	354630	5357506	lht grey lam slst/sh
17347	439	354630	5357512	faulted zone in lam grey slst,&fg/mg gwacke, fol/joints(m/s), slickensides-crm calc-sil
17348	440	354630	5357520	grey slst
17349	441	354642	5357534	clayey slst breccia?, lam slst&fg gwacke
17350	443	354507	5357460	dgrey hornfels gwacke, lht gn serp-patches(w) on fol, bk sil-tour?-vnd(w)
17351	444	354512	5357445	kaki mg gwacke
17352	445	354522	5357416	grey mg gwacke, patchy mag-tour-sil zones
17353	446	354527	5357365	hematitic fg/mg gwacke, minor slst
17354	447	354528	5357355	hematitic fg/mg gwacke, minor slst
17355	448	354529	5357343	fg/mg gwacke minor slst, joints(m), pk hm(w) serp-vnd(w) with slickensides
17356	449	354528	5357307	gwacke, serp slickensides on joints(tr) grey sil-vnd(tr), pk hm stain(w)
17357	450	354675	5357425	hornfels mg wacke, fg wacke, tour? vnd
17358	451	354680	5357436	grey fg/mg gwacke
17359	452	354677	5357451	hornfels mg wacke, py dss(tr), serp-vnd(vn, 5%)
17360	453	354674	5357460	dgrey-gn &crm altered gwacke? Serp-vnd(w-w/m), semi-perv sil+-mag/tour?-vnd(m/s local), py(tr,dss)
17361	453	354674	5357460	dgrey-gn &crm altered gwacke? Serp-vnd(w-w/m), semi-perv sil+-mag/tour?-vnd(m/s), py(1%,dss)
17362	454	354672	5357468	gn serp(m)-vnd, calc-sil-perv patches(w/m), py(tr), mg silicified(m) gwacke, also q-vnd on fault plane
17363	456	354655	5357545	mg gwacke, minor slst
17364	457	354674	5357540	mg wacke, minor slst difuse tour-mag vnd(w)
17365	460	354758	5357545	wed interbdd slst and fg/mg wacke
17366	461	354727	5357498	lam slst and vfg wacke, q-vnd with FeO selvages,
17367	461	354727	5357498	lam slst and vfg wacke
17368	462	354381	5357338	mg gwacke and slst mag(w), sil(w)
17369	463	354422	5357324	mg gwacke
17370	464	354380	5357264	mg wed gwacke

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Sample No.	Field No.	East (AMG)	North (AMG)	Description
17371	465	354401	5357214	subcrop vuggy grey sil(s), mag(w), dss
17372	466	354402	5357203	subcrop mg gwacke sil(w/m), serp(w, local) py(tr), mag(w)
17373	467	354404	5357167	float mg gwacke sil(w/m), py(tr) and grey&bn slst, sample of gn calc-sil-serp?(s), mag(vw) altered gabbro?
17374	467.1	354404	5357167	float dgn sil(m) serp(w/m), py(1%) altered cg wacke/gabbro
17375	470	354850	5357083	tan wed rock, feld xtals, FeO(w)
17376	471	354854	5357094	wed calc-sil(m), serp-vnd(w), mag-vnd(w), altered fg/mg wacke?
17377	472	354868	5357094	tour-vnd & dss(m), equiangular cg feld xtal-texture, serp(tr)
17378	472	354868	5357094	calc-sil(m/s), serp(m), tour-mag vnd(w) sed(gwacke?)
17379	473	354894	5357082	pebble-cobble congl, local mag-vnd
17380	473	354894	5357082	congl-texture?, sil(s), mag-vnd(w), gn serp?(w/m)
17381	473	354894	5357082	calc-sil(s), fg, feld-xtal bearing, Um?
17382	473	354894	5357082	calc-sil(s), fg, feld-xtal bearing, Um?, mag(vw)
17383	474	354914	5357060	semi-perv sil(m), pgn sil-serl(calc?)(w), mag(w) sst?
17384	474.5	354876	5357108	calc-sil(m), crm sil(m), bk/dgn tour?+-mag-vnd(m)&dss(w/m), py(tr,dss)
17385	475	354886	5357130	pgn calc-sil(m/s), patchy serp-vnd(w) gwacke?
17386	477	354896	5357153	pgn&grey sil-serp(w) interbdd slst&fg wacke, py(tr)
17387	478	354906	5357167	grey hornfels fg/mg gwacke, grey sil-vnd(w), py(tr,dss)
17388	479	354934	5357175	grey hornfels slst, minor fg gwacke, sil-vnd(w)
17389	480	354946	5357180	fg gwacke, minor slst, hornfels(w), tour?-sil-py-vnd(w)
17390	481	354964	5357187	lht grey slst, py-sil vnlts and dss(tr-0.5%), serp-vnd(w), q-slickensides
17391	482	354975	5357193	fg to mg gwacke, minor slst, py(tr) dss& vnd
17392	483	354986	5357203	hornfels mg gwacke, minor slst, py(tr), q-vnd(tr), q-slickensides
17393	484	355011	5357220	hornfels mg gwacke, minor slst, py(tr), q-vnd(tr)
17394	485	355033	5357231	grey hornfels fg wacke and pgn slst,q-vnd(tr), dss mag(w) local
17395	486	355024	5357278	pgn to gn perv& vnd sil-serp(w/m), serp(m), tour?-sil-vnd(w) after mg gwacke?
17396	487	355065	5357254	fg gwacke and slst, sil(w,local), calc-sil?(w), serp(w), fol(w/m), slickensides
17398	488	355078	5357249	grey/gn slst & zones of serp(s) overprinted by crm calc-sil(m/s) patches locally, py(tr-2%)
17399	488	355078	5357249	30cm wide zone serp(s), pyrrh(4%), cpy(tr), gal(0.5-1%), sph(0.5-1%), pent(?), py(?)
17397	489	355056	5357270	hornfels mg gwacke& minor slst interbeds, sil(w), serp-vnd(w,locally m)
17400	489	355056	5357270	sil-serp(m), slst adjacent to fault plane,/frac& vnd zone
17451	490	355036	5357290	hornfels mg wacke and slst, serp vnd(w/m) sil-serp(w/m,local), bk tour-sil-vnd local, sulphide(tr)
17452	491	355022	5357315	fg and mg hornfels gwacke, serp vnd(w/m), tour vnd(w), sil-serp(tr), joints(m/s)
17453	492	355014	5357330	after slst/fg gwacke/Um?, serp(m) perv and vnd calc-sil(m), sil-serp(m)
17454	493	355017	5357344	after slst/fg gwacke/Um?, serp(m) perv and vnd calc-sil(m), sil-serp(m)
17455	494	355050	5357362	fg sst/wacke serp-vnd(w),sil-serp(w)

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Sample No.	Field No.	East (AMG)	North (AMG)	Description
17456	495	355066	5357374	gn gwacke and interbdd slst, hornfels/sil(w), serp-vnd(m), calc-sil vnd(tr), pyrrh(to 3%)
17457	496	355068	5357390	hornfels sed/Um? crm calc-sil(m/s), pgn sil-serp(m), serp(w/m)
17458	497	355054	5357412	hornfels mg gwacke and slst, pyrrh(tr), joints(w)
17459	498	355030	5357430	dgrey slst/sh(hornfels(w)), py(tr), q-translucent bn(sph?)-vnd(w)
17464	499	355010	5357454	fg gwacke&slst, sil(m), serp(w/m), py(tr), q-serp vnd(w) joints(w/m) near faults
17460	500	355006	5357455	hornfels mg gwacke and minor slst, serp patches(w)
17461	501	355001	5357468	hornfels grey slst, bk tour?-sil-vnd(w)
17462	502	355001	5357480	mod schistose zone after slst and mg wacke, pcrm sulphide(1%) on fol, perv sil(w to m)
17463	503	355001	5357490	dgrey slst and wacke, minor calc-sil patches, py dss(tr), sil-serp-py vnd(tr)
17465	504	355001	5357514	lam slst and gwacke
17466	505	354996	5357522	mg hornfels gwacke, pyrrh to 4% patchy, calc-sil(m) and sil-serp and serp-vnd(to m), local str fol zone
17467	506	354994	5357526	mg hornfels gwacke, pyrrh to 2% patchy, sil-serp and serp-vnd(to m), mag(w)
17468	507	354990	5357532	dgn serp(m), mag(w), serp-vnd(w), patches of mg/cg hornfels gwacke
17469	508	354984	5357542	wispy crm calc-sil(to m) perv and fol parallel bands, serp-pyrrh vnd(tr) after slst, local kink bands
17470	509	354978	5357556	hornfels dgrey fg gwacke/slst, dss pyrrh(tr-3%)
17471	510	354975	5357570	hornfels fg wacke
17472	511	354973	5357578	hornfels slst, irregular foliation zones, q-serp vnd(m), py?(tr)
17473	512	354972	5357584	dgrey fg wacke&slst, serp-vnd(w), joints(m)
17474	513	354912	5357624	fg/mg gwacke, FeO-vnd(w)
17475	514	354883	5357625	wed slst
17476	516	354664	5357156	tan wed rock FeO vnd(w)
17477	517	354682	5357128	pgn hornfels/mg gwacke calc-sil(w), serp?(m)
17478	518	354704	5357098	subcrop-grey perv sil(m/s) with mag(vw), calc-sil(w), serp(to m), also lht gn/grey fol(m) gwacke/schist
17480	518	354704	5357098	grey sil(m/s), pgn fibrous serp-vnd, serp(m), py?(tr)
17479	519	354721	5357086	wed tan mg gwacke
17481	520	354685	5357086	wed(s) tan slst/sst?, FeO/(m) after serp?
17482	521	354688	5357063	pgn granule sst/granule-pebble congl, calc-sil(w/m)
17483	522	354880	5357034	hm(w) granule-sst
17484	523	354950	5357062	granule sst to granule congl mauve/gn, patches calc-sil(m), serp(m), py(tr), mag(w)
17485	524	354914	5356898	lmst, carb vnd(m),py(tr) in carb-vns
17486	525	354898	5356863	d grey lmst
17487	529	354668	5356956	wed lht bn/tan slst/gwacke?
17488	530	354652	5356962	wed thin bdd fg and mg gwacke?
17489	531	354653	5356978	granule sst and pebble congl
17490	532	354450	5357521	tree stump frags fg gwacke, hornfels, calc-sil(w)

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Sample No.	Field No.	East (AMG)	North (AMG)	Description
17491	533	354494	5357585	float grey hornfels gwacke & slst sil-tour-vnd(tr), serp(vnd, tr)
17492	533	354494	5357585	dgrey/gn serp(w/m), py-vnd(tr), sil-vnd(w)
17493	534	354508	5357575	fg hornfels(w) gwacke
17494	535	354517	5357590	mg hornfels(w) gwacke,q-vnd(tr)
17495	536	354534	5357605	slst and mg wacke, serp(w/m), sil-py(tr)-vnd, bk tour-vnd(w)
17496	537	354537	5357638	grey mg gwacke/hornfels, py(tr,dss), bk-tour?-vnd(w)
17497	538	354520	5357663	mg wacke and slst, pyrrh-sil vnd(w) serp(w), mag(w), pyrrh(3%), py(0.5%), cpy(tr)
17498	539	354511	5357667	hornfels/mg wacke sil-serp-vnd(w), mag(w) pyrrh(1%), cpy(tr)
17499	540	354495	5357674	hornfels mg dgrey/mauve gwacke, py(0.5-1%,vfg dss)
17500	541	354423	5357244	mg wacke and slst?, crm calc-sil(m) perv, minor pgn sil-serp and serp vnd(m), py(tr)
17601	542	354402	5357765	crm and pgn calc-sil(w/m), serp(m, vnd& semi perv), mag(w), pyrrh(tr) in serp vn's, grey sil-vnd(tr), bk tour-vnd(w)
17602	543	354395	5357782	hornfels fg wacke & cg lithic-gwacke(q-vn clasts), pgn calc-sil-vnd(w/m), serp(w)
17603	544	354402	5357696	dgn serp(m) after mg gwacke?
17604	545	354390	5357469	gwacke and slst, sil-tour-serp-vnd(w/m) pgn calc-sil-serp(tr)
17605	545	354390	5357469	gdrey/gnish chert, serp-vnd(m)
17606	546	354295	5357462	grey/bn slst, siliceous/crm sst texture local, cg(3mm) vn-q clasts(tr), serp(m to m/s,vnd&perv), py(tr)
17607	546	354303	5357455	fg gwacke, serp(w/m, vnd&perv)
17608	547	354289	5357540	fg gwacke/hornfels, grey/gn serp-vnd(w/m)
17609	547	354294	5357537	fg gwacke/hornfels, serp(m,flecks), py/pyrrh(1%), grey perv-sil(w)
17610	548	354350	5357723	hornfels grey lam/thin bdd slst and fg gwacke sil-serp vnd(w) vfg py?(tr), Trench? 5m x .7m
17611	549	354385	5357815	dgn mg gwacke, serp-perv(w/m), calc-sil-serp-vnd(tr) & pgn slst, bk-sil-vnd(w)
17612	550	354386	5357832	dgrey/bn hornfels gwacke, translucent q-vnd(tr), serp-vnd(vw), with zones/patches grey perv-sil(m), mag dss(w), serp(w/m)
17613	551	354395	5357932	subcrop/alluvian boulders dgn/bn mg hornfeld(m/s) gwacke, sil-serp-vnd(w), locally serp vnd(m)
17614	552	354395	5357952	grey/gn hornfels mg, locally cg wacke, sil-calc-vnd(w)
17615	553	354396	5357970	float boulders crm and pgn calc-sil(m) zones in slst and pgn translucent sil-serp(w/m) and outcrop mg wacke & slst, crm calc-
17616	554	354396	5357980	gn fg gwacke and slst, serp(w/m), crm calc-sil(w), pyrrh?(tr), mag(vw), bk tour?-sil-vnd(w/m)
17617	555	354395	5358000	gn serp(w/m) perv, and crm wispy calc-sil-skarn, after gwacke?
17618	556	354411	5357964	pgn calc-sil(m), fg wacke & slst
17619	557	354419	5357958	dgn aphanitic to fg msv mafic-basalt?
17620	558	354428	5357941	gn indurated fg basalt?
17621	559	354553	5357859	dgrey hornfels mg gwacke
17622	560	354583	5357863	dgrey hornfels mg gwacke, serp vnd(tr)
17624	562	354700	5357820	dgrey hornfels mg wacke
17625	563	354702	5357775	fg and mg/cg hornfels(w/m) gwacke, serp(vw)
17626	564	354247	5357462	grey/gn fg gwacke, serp-vnd(w), semi-perv serp(w)

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Sample No.	Field No.	East (AMG)	North (AMG)	Description
17627	565	354198	5357452	subcrop, dgrey mg gwacke hornfels(m), serp(w) and interbdd fg wacke and slst/dgn chert
17628	566	354223	5357525	dgrey/gn mg gwacke, dss flecks serp(vw), serp-vnd(m) with pyrrh(tr-0.5%) & pale aspy?(tr) dss& vns
17629	567	354171	5357490	dgrey/gn mg hornfels(m/s) gwacke, dss serp(w) flecks, zone of bleached feldspathic grains with vdgn matrix,-trace sil-pyrrh?-v
17630	568	354182	5357464	sparse float, dgrey hornfels fg gwacke, serp-vnd(w), semi-perv serp(w/m)
17631	569	354220	5357384	subcrop dgrey/bn mg gwacke with slst interbeds, hornfels(m), serp vnd(w/m) with pyrrh(tr-.5%)
17632	570	354242	5357189	dgn serp(m) msv mafic? with zones perv pgn sil(calc?,m)
17633	571	354258	5357184	olive/khaki fg-mg msv Ultramafic, serp perv(m), local weakly gabbroic texture, serp-vnd(w)
17634	571	354275	5357183	msv Um, pgn calc-sil-zones(w/m), pyrrh(tr-0.5%)
17635	571	354264	5357186	dgn serp(m/s) Um, pyrrh(0.5%), pent(tr)
17636	571	354267	5357184	mg/cg Um, serp(m/s), cg xtal zones, pgn calc-sil(s), py/cpy(3%,dss), pent(tr), pk sulphide(tr), chrysolitic vns(tr)
17637	572	354222	5357200	pgn Um, calc-sil(m), serp(m) overprinting serp perv(m), sulphide(tr)
17638	573	354192	5357174	float mod wed, lht bn, little altered slst
17639	574	354194	5357156	float/scree olive gn fg/mg Ultramafic, serp(m/s) sulphide dss(tr)
17640	575	354240	5356954	float/subcrop lht grey fol(m), fg sst& cg q-sst
17641	576	354326	5357018	granular pebble congl and q-sst scree
17642	579	354233	5357013	lht bn slst serp+/-sil-vnd(m) on joints, sulphide(tr)
17643	580	354245	5357039	scree lht grey & grey lam slst and minor mafic(not in sample)
17644	581	354295	5357070	scree gn mafic? pgn sil-serp(m/s), perv serp(m)
17645	582	354385	5357071	fg/mg pgn gwacke mafic volc sst
17646	583	354406	5357080	lht grey slst, pyrrh-vnd(1-2%)
17647	584	354460	5357095	grey slst, pyrrh vnd(tr) serp-mag-vnd(w, m/s local), (cobble-congl float in creek)
17648	585	354489	5357106	grey locally lam slst pyrrh-vnd(tr-0.5%) on fol(w/m)
17649	586	354520	5357120	hornfels(w/m) cg lithic-sst to fine granule-congl, q-vn lithics, pyrrh(0.5%), mag(tr-0.5%, dss),
17650	587	354536	5357139	mg/cg msv lithic sst, pgn sil-serp(m), mag(w), cpy?(tr), crm calc-sil(w)-perv
17651	588	354542	5357172	pgn serp(m/s), sil-serp(m) Um & altered relict congl, composite sample
17652	589	354540	5357207	lht bn mg lithic wacke, fol(w), (q-vnd lithic sparse)
17653	590	354530	5357268	wed fg sed/slst, serp-vnd(w)
17654	591	354548	5357236	granule-pebble congl, crm wispy calc-sil(w)
17655	592	354558	5357181	dgrey/bn hornfels(m), lam slst and fg gwacke, pyrrh(1%)-vnd
17656	593	354540	5357161	Um?, relict clast like zones of crm sil-rock, mag(w), calc-sil(tr), silvery sulphide(tr)
17657	594	354610	5357186	float, pgn calc?-sil-serp(m), serp(w/m) altered sed, dgrey tour?-vnd
17658	594	354610	5357186	lht bn/gn chert with vfg pyrrh(2%,dss), serp-vnd, grey sil-vnd(w)
17659	595	354565	5357565	dgrey mag(s, semi-perv& dss), fg/mg gwacke, sil-serp-py?-vnd(tr)
17660	596	354326	5357205	tan wed sed
17661	596	354326	5357194	dgn fg msv mafic, serp(m/s)

Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
17662	597	354995	5357614	grey and lht bn slst, minor fg wacke sil-serp vnd(tr)
17663	598	355005	5357125	grey fg gwacke/hornfels(w), py(tr, 0.5% local), pyrrh-q-vnd(w, local)
17664	598	355026	5357644	grey sh/slst, bdd parallel py bands(py tr-1%,locally 6%), cpy?(tr), sil-vnd(tr)
17665	599	355013	5357633	pyrrh+/-sil stockwork-vnd, grey vfg gwacke, py-sil-vnd(w), pyrrh(3%,locally 6%)
17666	600	355036	5357656	fg gwacke& mg lithic-gwacke(crm sil/q clasts), sil-serp(ep?)-vnd(w/m), mag(m, perv& sil-mag-vnd(w))
17667	601	355040	5357680	fg gwacke, minor slst/sh, hornfels(m), sil-pyrrh-vnd(tr), pyrrh dss(tr)
17668	602	355037	5357703	cherty dgrey sh/slst, pyrrh(2%,dss & blebs) & sil-vnd, local gn perv sil-serp(m)
17669	603	355040	5357724	mostly dgrey fg hornfels gwacke, minor granule-lithic wacke and dgn slst, sil-serp-vnd(tr), crm sil localy crosscut by mag-sil-py
17670	603	355034	5357726	grey sh/slst
17671	604	355030	5357751	grey slst/sh & minor fg gwacke, py(tr)
17672	605	355012	5357786	mg gwacke, hornfels(m), pgn sil-serp-vnd(tr), pyrrh-vnd(tr)
17673	606	355054	5357797	Fault zone, crm calc-sil(m), sil-serp vnd(w) and perv(w) in fault plane with weak boudinage of vns and lithics
17674	606	355063	5357801	dgrey mg wacke and slst, pyrrh(1%,locally 4%, vnd) with sil-mag-vnd(w), sil-serp-vnd(w)
17675	607	355100	5357823	little altered,hornfels(vw) gwacke and minor slst
17676	607	355111	5357840	patch dgrey mg gwacke hornfels(m/s), bn translcent sph?(tr)-py-vnd(w)
17677	608	355130	5357849	grey slst and fg gwacke, thin bdd, sparse hornfels(w)
17678	609	355156	5357867	mg gwacke
17679	610	355168	5357874	hornfels(m) mg/cg gwacke, mag dss and patches(w), py(tr-0.5%), pyrrh/pent?(tr)
17680	611	355170	5357869	grey slst and fg gwacke
17681	612	355174	5357836	grey slst/sh
17682	614	355200	5357860	matrix supported pebble-cobble congl, sub rounded to sub angular mg gwacke clasts & overlying minor grey siliceous slst.
17683	615	355234	5357900	grey mg gwacke, truncated cross beds, sil-serp-py vnd(tr)
17684	615	355234	5357900	milky q-vnd with semi-msv py selvages(5%), weak pgn sil-serp vn haloe.
17685	616	355260	5357480	crm semi-translucent perv sil(s), cg mag dss(tr)
17686	617	355098	5357481	grey mg gwacke and sh/slst with mag-bn translucent min-vnd(w)
17687	618	355080	5357481	dgrey sh/chert and mg hornfels gwacke, sil-py vnd(tr), mag-vnd(tr)
17688	619	355031	5357553	gn/grey mg gwacke, serp perv& vnd(w), py dss(tr)
17689	620	355900	5357780	tan and grey weakly brecciated slst, irregular fg msv mag vnd& semi perv(20%+,m/s)
17690	621	355895	5357796	grey slst, serp vnd(w/m to m)
17691	622	355838	5357847	gn perv serp(m/s), irregular crm calc-sil(w) veins/zones overprint fg sed?
17692	623	355703	5357920	wed fg gwacke, serp patchy(vw)
17693	625	355621	5357690	wed mg gwacke, micaceous(w)
17694	626	355766	5357786	alluvium-grey mg gwacke, hornfels(s), serp vnd(w)
17695	626	355766	5357786	crm calc-sil altn(s)
17696	627	355774	5357724	wed mg gwacke?

Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
17697	628	355790	5357700	crm and gn altered fg gwacke/Um?, perv serp(w), wispy crm calc-sil bndd(m) overprinting serp, locally serp(w/m) in fg gwacke
17698	629	355797	5357687	crm and pgn siliceous zone with crm calc-sil(m), irregular specular gal patches/zones(w/m,<5%),after fg gwacke?
17699	630	355645	5357415	crm/grey strong perv msv silicification, mag dss flecks(2-3%) locally vuggy with FeO fill
17700	631	355691	5357406	msv crm/grey perv silicified(s) mag dss(1%), pgn sil-serp(w/m) local overprint, FeO(w)
17801	632	355722	5357394	msv crm silicification(s) mag dss(1%), specular hm?(0.5%)(mg wacke selvage? tr)
17802	633	355640	5357344	gn/pgn wed mafic/Um mg, local cg serp ferromags, serp(w/m)?
17803	634	355621	5357414	msv crm sil(s), mag(w, 2-3% dss), FeO filled vugs(w/m)
17804	635	355562	5357435	msv crm/grey silicification(s), mag dss(1%), pgn sil-serp overprint(w), pent? dss(tr-0.5%,local)
17805	636	355519	5357431	sil(m/s),mag semi perv(m) and dss pgn sil-serp(m), sparse milky vn qtz with drusy qtz-lined vugs
17806	637	355375	5357885	gwacke and sh, pyrrh(tr,dss), mag(tr,dss)
17807	638	355376	5357566	float boulders of dgrey sh and fg wacke-indurated/hornfels. fol(m), py(1%,dss) & pgn sil-serp(m/s)
17808	639	355356	5357530	pgn fg sed/Um?, serp(w/m, perv), mag veinlets(w,2%), banded crm calc-sil(w)
17809	640	355344	5357514	cherty dgrey sh and hornfels mg wacke, serp-vnd(locally w/m), grey sil-py-vnd(w/m,local), py(1% local, tr overall), dextral offse
17810	641	355325	5357485	dgrey fg gwacke, minor cherty sh, q-veinlets(tr), mag(vw)
17811	642	355222	5357746	grey hornfels mg gwacke
17812	643	355222	5357758	tan wed slst(no altn)
17813	644	355158	5357705	hornfels mg gwacke, gndmass perv-serp(w), serp-vnd(tr)
17814	645	355138	5357712	hornfels mg and fg gwacke, serp-vnd(w), perv-serp(w,locally m), tour?-sil-vnd(tr)
17815	646	355513	5357452	gn sil-serp-perv(m) altered mg gwacke
17816	647	355500	5357453	pgn-gn wed sed/mafic? wed-serp patches sparse, FeO zones(w), sil(w) patches
17817	648	355470	5357456	gn locally crm, perv sil-serp(m/s) locally overprints crm sil(w) patches fg msv and semi perv vnd mag(m) altered sed?/Um?
17818	650	355423	5357531	dgn fg ultramafic, serp(m/s), sulphide(tr), gn sil-serp patches(w/m), crm calc-sil bands/zones(w)
17819	651	355456	5357510	pgn and gn serp(m) with crm wispy calc-sil(m) overprint, fol(m) locally, py(tr-1%,locally 3%) as dss and patches, local selvages
17820	651	355456	5357510	wispy clac-sil(m/s), serp(w/m), py(3%, dss& patchy)
17821	652	355131	5357458	float, crm sil(s), mag dss(tr), minor grey chert
17822	653	355146	5357278	mg gwacke & minor sh, serp-vnd(tr)
17823	655	355206	5357338	grey slst and sh fol(w/m), dgrey sil-vnd(tr), weakly striated surface
17824	656	355290	5357434	wed slst
17825	658	355414	5357250	lht gn hornfels(w) granule-pebble gwacke sst, serp(w), siliceous and gwacke clasts
17826	659	355430	5357148	wed tan matrix supported granule-pebble congl/breccia, rounded siliceous clasts v sparse, subrounded to subangular slst and
17827	660	355422	5357433	wed tan, mg gwacke?/mafic?,sil(w)
17828	661	355990	5357642	dgn/grey fg msv basalt, indurated, perv& vnd serp(w)
17829	662	355990	5357737	gn msv fg basalt perv-serp(w/m), crm calc-sil vnd/bdd(w)
17830	663	355990	5357778	sil(s)/q-vnd scree,(fine to pebble size)
17831	664	355990	5357843	msv fg basalt, serp(w)

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Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
17832	665	355534	5357240	eluvium angular pebble-cobbles wed fg gwacke, sparse q-lithics
17833	666	355534	5357220	Alluvium of sil-serp(vs), serp(m/s) with pent(tr), pyrrh(tr) and py(tr)
17834	666	355534	5357220	crm and gn flecked mg equigranular mafic(gabbroic texture), serp(w/m) of ferromags(30%);
17835	667	355558	5357168	wed pk/bn hematitic mg spinifex-textured mafic/gabbro
17836	668	355564	5357162	mg gabbro, serp(w), hornfels?(m)
17837	668	355564	5357162	gabbro? indurated(s), serp-perv serp(w/m), py?(tr-0.5%)
17838	669	355588	5357122	lht grey siliceous slst FeO/MnO(w) on joints, unlike Crimson Creek Form'n
17839	670	355586	5357094	lht bn siliceous hornfels(s) pebble-lithic-sst?, pgn sil-serp(w) semi-perv mag-vnd(w)
17840	671	355590	5357060	lht bn q-lithic siliceous sst to granule-pebble-congl, pyrrh?(tr) on fracs
17841	672	355578	5357028	lht bn siliceous lithic-cg-q-sst
17842	673	355568	5357010	lht bn qtzite and granite-lithic-cg siliceous sst& granite-pebble congl, gn semi-perv sil-serp(tr)
17843	674	355693	5357053	locally sil-serp(m) altered siliceous/indurated sst, bk hm?-vnd(w/m)
17844	675	355776	5357183	wed pgn msv serp, local relief cg feld
17845	676	355777	5357210	wed dgn relief mafic? serp(m/s), sil(w), mag(w) patches
17846	677	355788	5357259	crm sil(m/s), mag(m) as dss, vnd and patches, gn serp(m/s), patches relict mafic?
17847	678	355787	5357276	dgn and bk msv serp(s), mag(m/s,30%, dss&semi-perv), local perv and vnd sil-serp(m/s), sulphide-pent?(0.5%), chrysolitic-sli
17848	683	355120	5357180	mg gwacke, bk-veinlets(w), FeO-vnd(w)
17849	684	355091	5357177	mg gwacke
17850	685	355064	5357174	lht bn slst and mg gwacke
17851	686	355065	5357149	dgn fg msv serp(m/s), Um? crm calc-sil(w), sil-serp(w)
17852	688	355095	5357081	siliceous lht bn slst, bk-vnd(m)
17853	689	355113	5357090	siliceous lht bn sst and slst, sil(w/m), bedding parallel to fol?
17854	690	355327	5357095	reddish hematitic wed gwacke/fault zone rock? MnO patches(w)
17855	691	355332	5357074	crm q(60-90%)-sst, sparse lithic?
17856	693	355395	5357096	fault breccia?, bn and mauve hm(w), FeO(m), MnO(m) gwacke and slst clasts, locally aligned to fol(w)
17857	694	355384	5357138	crm and tan, locally siliceous, fg sst, banding(tr)
17858	695	355375	5357161	laminated mg gwacke and fg gwacke/slst
17859	699	354815	5357268	granule-pebble congl matrix perv serp(m/s), mag-difuse vnd(w), spotty sil-serp(w)
17860	700	354788	5357269	granule-pebble congl matrix perv serp(m), mag-difuse vnd(w), crm calc-sil(vw), local sil-serp(w)
17861	701	354760	5357263	granule-pebble congl with minor cg-lithic sst, serp(m), pgn sil-serp(w) flecks
17862	702	356010	5357291	crm and grey sil(vs), mag dss(tr), FeO boxwork after sulphide?(2% local), pgn sil-serp(tr,local), q-vnd(tr)
17863	703	355975	5357297	crm and grey sil(vs), mag dss(tr), locally hem, pgn sil-serp(tr)
17864	704	355992	5357226	crm and grey sil(vs), mag dss(tr), wed FeO flecks & patches(w/m)
17865	705	356001	5357235	crm and grey sil(vs), mag dss(tr), relict clast-like texture after mg gwacke?
17866	706	356043	5357149	tan wed siliceous rock with mag dss(w), local weak wavy foliation

Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
17867	707	356044	5357126	crm msv sil(s) with mag dss(0.5%)
17868	708	355996	5357130	mauve/reddish wed rock fault zone? local gwacke texture and clayey banded zones
17869	713	355899	5357180	wed tan and gn rock after serp(m),(mafic?), zones pgn sil-serp(m)
17870	714	355893	5357285	grey slst FeO-vnd(w/m)
17871	715	355898	5357288	lht bn slst/fg gwacke, mag dss(w)
17872	716	355907	5357295	fg and mg gwacke, mag(w)
17873	717	355934	5357324	wed crm and tan mg? gwacke,sil(w), FeO-vnd(m); float crm sil(s)
17874	718	355944	5357330	lht bn slst and fg gwacke, FeO-vnd(w)
17875	719	355800	5357215	wed serp(m/s), mag dss(w)
17876	720	355802	5357188	wed msv serp(vs) and fg/mg Um? serp(s)
17877	721	355704	5357168	crm and gn mg/cg gabbro serp?(w)
17878	722	355705	5357190	gn serp(m), sil(w), relief equigranular texture-gabbro?
17879	723	355708	5357346	scree, crm/grey msv sil(s) mag(w)
17880	724	355710	5357366	crm/grey msv sil(s) mag(w), local patches sil-serp(w/m)
17881	725	354627	5357750	bn hornfels(m/s), cg lithic-sst/gwacke, minor dgn chert, serp(w), serp-vnd(w/m), py/pyrrh(tr-0.5%), cpy(tr), pent?(tr,dss), mag(v
17882	726	354642	5357752	dgn slst and fg gwacke, perv and vnd serp(m), fol(m), pyrrh(tr), local crm calc-sil semi-perv-vnd
17883	727	354696	5357732	dbn cherty slst, minor fg gwacke, serp-vnd(w) & minor fault breccia bearing angular crm sil & pgn sil-serp clasts with matrix pe
17884	729	354704	5357661	wed grey slst, minor fg gwacke
17885	731	354830	5357633	grey fg gwacke?, sil(w)
17886	732	354834	5357645	lht bn fg and mg gwacke, minor slst, hornfels(vw)/indurated(w)
17887	733	354924	5357778	float, dbn hornfels fg gwacke
17888	733	354924	5357778	float, serp(w), mg gwacke
17889	734	354824	5357735	alluvium serp(m) perv and vnd, sulphide(tr), pgn calc-sil(w/m) fg and mg wacke?
17890	735	354396	5357735	dgn and crm fg/mg gabbro, serp(w/m) of ferromags & vnd(tr)
17891	736	354385	5357795	float,-dgn serp(s), Um? pyrrh(2%), crm calc-sil bands(w)
17892	736	354385	5357795	pgn sil-serp(w/m), serp-vnd(m) with pyrrh-vn's and dss vfg(6%), after fg sed?
17893	736	354385	5357795	crm calc-sil(s), pyrrh(4%), serp-vnd(w)&perv(m)
17894	737	354395	5358090	crm sil(s), sil-serp(m/s)
17895	737	354395	5358090	msv serp
17896	738	354390	5358108	dgn/bn hornfels(s) mg gwacke, serp(w/m, perv), py(tr-3%,dss), cpy(tr)
17897	740	354391	5358235	mg hornfels q?-sst/gwacke, py(tr, dss)
17898	742	354410	5358236	fg gwacke& slst, hornfels(s), serp(m/s, local)-vnd, py/pyrrh(tr), crm calc-sil-vnd(w)
17899	743	354406	5359134	dgn msv fg serp(m/s), pyrrh(tr-0.5%), mg gabbro-texture?-local
17900	744	354445	5359082	bn hornfels mg gwacke, serp-vnd(m), crm calc-sil(tr)
30051	745	354740	5358582	crm calc-sil(s), serp-vnd(w/m), one frag fg basalt?

Avebury Sample Catalogue				
Sample No.	Field No.	East (AMG)	North (AMG)	Description
30052	746	354778	5358518	mg gabbro, sil-serp-vnd(m), pyrrh(3-4%)
30053	747	354820	5358484	pgn sil-serp(s), mag-vnd(w/m)-pyrrh(0.5%)

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17301	400	354725	5357380	Etsl	comp	float	213	4	5	93	-50
17302	401	354733	5357282	Ets	comp	outcrop	112	129	1230	333	-50
17303	401.1	354732	5357276	Etmg	comp	outcrop	77	17	25	47	-50
17304	401.2	354732	5357276	Etmg	comp	float	67	6	18	84	-50
17305	402	354740	5357190	Etsl	comp	outcrop	261	52	1095	360	-50
17306	403	354720	5357222	Etsl	comp	outcrop	117	48	164	221	-50
17307	403	354720	5357222	Ds?	grab	outcrop	218	70	914	169	50
17308	404	354646	5357226	Etmg	comp	outcrop	172	19	53	157	-50
17309	405	354660	5357228	Etmg	comp	outcrop	105	35	84	158	-50
17310	406	354674	5357232	Etsl	comp	subcrop	31	13	117	50	-50
17311	410	354700	5357250	Etmg	comp	outcrop	98	14	202	354	-50
17312	412	354706	5357320	Dm/Etmg	comp	outcrop	861	73	136	228	650
17313	413	354700	5357329	Tbr?	comp	outcrop	260	132	793	144	-50
17314	414	354696	5357342	Esm/Dm	comp	outcrop	1550	5	43	170	140
17315	414	354696	5357342	Dm	comp	float	279	9	45	435	1370
17316	415	354712	5357376	Dcs	comp	outcrop	765	2	43	198	300
17317	417	354704	5357382	Dqm?	comp	outcrop	1175	10	70	197	645
17318	417	354700	5357380	Dss	comp	outcrop	549	5	49	164	335
17319	417	354694	5357378	Dss	comp	outcrop	683	6	58	158	330
17320	417	354688	5357372	Dss	comp	outcrop	615	14	163	273	110
17321	417	354684	5357370	Dss	comp	outcrop	760	8	68	281	55
17322	417	354680	5357366	Dss	comp	outcrop	355	3	68	266	-50
17323	417	354688	5357372	Dqm?	comp	outcrop	859	58	77	259	-50
17324	417	354700	5357380	?	grab	outcrop	29	5	6	23	400
17325	418	354678	5357344	Dss/Dcs?	comp	subcrop	1355	3	10	179	190
17326	419	354676	5357336	Dcs	comp	subcrop	250	3	25	46	-50
17327	420	354664	5357323	Dcs/Ets?	comp	outcrop	367	2	22	105	-50
17328	422	354622	5357270	Dss?	comp	float	239	37	139	767	-50
17329	423	354614	5357302	Ets?	comp	float	52	289	24	23	95
17330	424	354600	5357374	Ets	comp	outcrop	79	59	19	95	55
17331	425	354588	5357384	Etmg	comp	outcrop	56	33	34	216	50
17332	426	354576	5357396	Etmg	comp	outcrop	90	67	13	63	55
17333	426	354576	5357396	Etmg	comp	outcrop	132	29	6	96	50
17334	427	354554	5357420	Etmg	comp	outcrop	118	48	17	76	55
17335	428	354546	5357440	Etmg	comp	outcrop	112	34	3	90	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17336	429	354534	5357450	Etfg	comp	outcrop	109	42	-3	62	-50
17337	430	354520	5357466	Etmg	comp	outcrop	83	43	63	121	65
17338	430	354520	5357466	?	grab	outcrop	10	10	142	37	-50
17339	431	354558	5357456	Etmg	comp	outcrop	116	66	15	89	-50
17340	432	354566	5357450	Etfg	comp	outcrop	80	41	23	86	65
17341	433	354576	5357442	Etmg	comp	outcrop	115	62	86	120	55
17342	433.5	354600	5357430	Etmg	comp	outcrop	131	70	14	82	-50
17343	434	354616	5357444	Etfg	comp	outcrop	40	10	19	66	-50
17344	436	354630	5357490	Etmg	comp	outcrop	64	76	42	96	-50
17345	437	354630	5357502	Etmg	grab	outcrop	54	26	5	108	-50
17346	438	354630	5357506	Etsl	comp	outcrop	63	86	28	107	-50
17347	439	354630	5357512	Etsl	comp	outcrop	63	45	30	88	-50
17348	440	354630	5357520	Etsl	comp	outcrop	81	52	34	119	-50
17349	441	354642	5357534	Tbr/Ets?	comp	outcrop	66	39	21	93	-50
17350	443	354507	5357460	Etmg	comp	float	93	11	-3	43	-50
17351	444	354512	5357445	Etmg	comp	float	111	18	-3	36	-50
17352	445	354522	5357416	Etmg	comp	outcrop	101	60	12	81	-50
17353	446	354527	5357365	Etmg	comp	outcrop	96	96	13	88	-50
17354	447	354528	5357355	Etmg	comp	outcrop	90	72	7	97	-50
17355	448	354529	5357343	Etmg	comp	outcrop	100	56	4	80	-50
17356	449	354528	5357307	Etmg	comp	outcrop	78	74	11	63	65
17357	450	354675	5357425	Etmg	comp	float	110	23	-3	53	-50
17358	451	354680	5357436	Etmg	comp	outcrop	119	52	43	151	-50
17359	452	354677	5357451	Etmg	comp	outcrop	78	71	-3	62	-50
17360	453	354674	5357460	Etmg?	comp	float	63	10	14	53	-50
17361	453	354674	5357460	Etmg?	grab	outcrop	88	86	3	60	-50
17362	454	354672	5357468	Etmg	comp	outcrop	38	10	17	48	-50
17363	456	354655	5357545	Etmg	comp	outcrop	50	49	14	84	-50
17364	457	354674	5357540	Etmg	comp	outcrop	39	19	18	70	-50
17365	460	354758	5357545	Etsl	comp	outcrop	26	70	11	114	-50
17366	461	354727	5357498	Etsl	grab	float	8	41	47	32	-50
17367	461	354727	5357498	Etsl	comp	float	87	78	56	130	-50
17368	462	354381	5357338	Etmg	comp	float	88	15	6	55	-50
17369	463	354422	5357324	Etmg	comp	float	127	66	11	72	-50
17370	464	354380	5357264	Etmg	comp	outcrop	81	66	12	69	-50

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Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17371	465	354401	5357214	Dqm	comp	float	26	67	33	110	-50
17372	466	354402	5357203	Etmg	comp	subcrop	80	122	5	73	-50
17373	467	354404	5357167	Ebag?/Esm	grab	float	109	858	31	461	-50
17374	467.1	354404	5357167	Ebag?/Esm	comp	outcrop	126	13	13	85	-50
17375	470	354850	5357083	Etfg	comp	float	191	71	6	199	-50
17376	471	354854	5357094	Etmg?	grab	float	78	6	4	69	-50
17377	472	354868	5357094	Etfg	comp	outcrop	38	8	8	59	-50
17378	472	354868	5357094	Dcs/Ets?	grab	float	54	46	6	116	-50
17379	473	354894	5357082	Etc	grab	float	294	6	21	211	-50
17380	473	354894	5357082	Etc/	grab	float	138	65	51	151	65
17381	473	354894	5357082	Esm?	comp	outcrop	125	17	43	240	-50
17382	473	354894	5357082	Esm?	comp	outcrop	192	33	68	197	-50
17383	474	354914	5357060	Dqm/Ets?	comp	outcrop	52	7	-3	458	-50
17384	474.5	354876	5357108	Ets/Esm?	comp	outcrop	88	3	48	218	-50
17385	475	354886	5357130	Ets?	comp	outcrop	150	2	46	149	-50
17386	477	354896	5357153	Etsl	comp	outcrop	90	45	51	140	-50
17387	478	354906	5357167	Etmg	comp	outcrop	61	14	33	153	-50
17388	479	354934	5357175	Etsl	comp	outcrop	63	21	49	135	-50
17389	480	354946	5357180	Etfg	comp	outcrop	56	64	17	116	-50
17390	481	354964	5357187	Etsl	comp	outcrop	58	44	58	136	-50
17391	482	354975	5357193	Etfg	comp	outcrop	48	32	78	136	-50
17392	483	354986	5357203	Etmg	comp	outcrop	38	12	41	117	-50
17393	484	355011	5357220	Etmg	comp	outcrop	40	17	52	124	-50
17394	485	355033	5357231	Etfg	comp	outcrop	86	11	36	145	-50
17395	486	355024	5357278	Etmg?	comp	float	34	9	50	116	-50
17396	487	355065	5357254	Etfg	comp	outcrop	109	23	42	192	-50
17398	488	355078	5357249	Etfg	comp	outcrop	65	49	203	443	-50
17399	488	355078	5357249	S	grab & REF	outcrop	86	160	709	6500	-50
17397	489	355056	5357270	Etmg	comp	outcrop	68	39	91	158	-50
17400	489	355056	5357270	Etsl/Tbr?			85	24	39	162	-50
17451	490	355036	5357290	Etmg	comp	outcrop	105	23	21	143	-50
17452	491	355022	5357315	Etfg	comp	outcrop	69	4	40	101	-50
17453	492	355014	5357330	Ets/Esm?	comp	outcrop	55	10	44	142	-50
17454	493	355017	5357344	Ets/Esm?	comp	outcrop	82	4	51	109	-50
17455	494	355050	5357362	Etfg	comp	outcrop	53	13	48	103	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17456	495	355066	5357374	Etmg	comp	outcrop	81	72	38	108	-50
17457	496	355068	5357390	Ets/Esm?	comp	outcrop	61	28	69	124	-50
17458	497	355054	5357412	Etmg	comp	outcrop	108	18	21	130	-50
17459	498	355030	5357430	Etsl	comp	outcrop	65	33	40	114	-50
17464	499	355010	5357454	Etfg	grab	outcrop	79	15	43	133	-50
17460	500	355006	5357455	Etmg	comp	outcrop	71	34	46	155	-50
17461	501	355001	5357468	Etsl	comp	outcrop	95	26	22	135	-50
17462	502	355001	5357480	Ets	comp	outcrop	99	51	32	137	-50
17463	503	355001	5357490	Etsl	comp	outcrop	72	39	15	125	-50
17465	504	355001	5357514	Etsl	comp	outcrop	79	73	28	115	-50
17466	505	354996	5357522	Ets	comp	outcrop	102	53	20	71	-50
17467	506	354994	5357526	Etmg	grab	outcrop	109	49	19	67	-50
17468	507	354990	5357532	Etcg	comp	outcrop	69	9	60	115	-50
17469	508	354984	5357542	Etsl?	comp	outcrop	75	150	258	334	155
17470	509	354978	5357556	Etfg	comp	outcrop	71	48	17	74	-50
17471	510	354975	5357570	Etfg	comp	outcrop	62	25	47	75	-50
17472	511	354973	5357578	Etsl	comp	outcrop	70	4	15	73	-50
17473	512	354972	5357584	Etfg	comp	outcrop	68	17	19	83	-50
17474	513	354912	5357624	Etfg	comp	outcrop	84	7	-3	62	-50
17475	514	354883	5357625	Etsl	comp	outcrop	71	43	12	133	-50
17476	516	354664	5357156	Ets	grab	float	114	15	318	258	-50
17477	517	354682	5357128	Etmg	grab	float	113	9	43	63	-50
17478	518	354704	5357098	Dqm/Ets	comp	subcrop	55	10	75	52	-50
17480	518	354704	5357098	Dqm/Esm?	grab	subcrop	90	7	70	126	-50
17479	519	354721	5357086	Etmg	comp	float	180	44	90	116	-50
17481	520	354685	5357086	Etsl	comp	outcrop	183	39	1180	189	-50
17482	521	354688	5357063	Oc/Etc?	grab	outcrop	71	7	53	56	-50
17483	522	354880	5357034	Os/Oc	comp	outcrop	20	6	32	83	-50
17484	523	354950	5357062	Etlg?/Oc?	comp	outcrop	23	16	29	380	-50
17485	524	354914	5356898	Og	comp	outcrop	9	2	89	454	-50
17486	525	354898	5356863	Og	comp	outcrop	26	9	89	1010	-50
17487	529	354668	5356956	Su?/Ets?	comp	outcrop	52	50	126	728	-50
17488	530	354652	5356962	Ets	comp	outcrop	97	34	271	2620	80
17489	531	354653	5356978	Oc	comp	outcrop	20	6	55	73	-50
17490	532	354450	5357521	Ets	comp	float	107	43	15	83	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17491	533	354494	5357585	Ets	comp	float	76	12	12	74	-50
17492	533	354494	5357585	Ets?	grab	float	98	219	13	125	-50
17493	534	354508	5357575	Etfg	comp	outcrop	93	25	12	88	-50
17494	535	354517	5357590	Etmg	comp	outcrop	90	48	14	92	-50
17495	536	354534	5357605	Etsl	comp	outcrop	58	15	15	89	-50
17496	537	354537	5357638	Etmg	comp	outcrop	59	5	27	103	-50
17497	538	354520	5357663	Etmg	comp	outcrop	75	23	16	119	-50
17498	539	354511	5357667	Etmg	comp	outcrop	64	94	4	87	-50
17499	540	354495	5357674	Etmg	comp	outcrop	86	6	-3	39	-50
17500	541	354423	5357244	Etmg	comp	outcrop	30	5	9	48	-50
17601	542	354402	5357765	Dcs/S	comp	outcrop	15	10	5	44	-50
17602	543	354395	5357782	Etlg	comp	outcrop	57	6	-3	40	-50
17603	544	354402	5357696	Etmg?	comp	float	22	2	7	30	-50
17604	545	354390	5357469	Etmg	comp	outcrop	63	14	15	36	-50
17605	545	354390	5357469	Ets	grab	float	40	5	3	25	-50
17606	546	354295	5357462	Etlg?	grab	float	51	5	7	30	-50
17607	546	354303	5357455	Ets	comp	float	68	4	4	36	-50
17608	547	354289	5357540	Etfg	comp	float	52	28	6	43	-50
17609	547	354294	5357537	Etfg	grab	float	38	144	8	44	-50
17610	548	354350	5357723	Etsl	comp	float	62	122	6	43	-50
17611	549	354385	5357815	Etmg	comp	outcrop	23	3	-3	25	-50
17612	550	354386	5357832	Ets	comp	outcrop	65	60	3	54	-50
17613	551	354395	5357932	Ets	comp	subcrop	77	6	-3	55	-50
17614	552	354395	5357952	Etcg	comp	outcrop	29	18	4	47	-50
17615	553	354396	5357970	Ets	comp	float	42	3	12	64	-50
17616	554	354396	5357980	Etfg	comp	outcrop	36	6	7	46	-50
17617	555	354395	5358000	Dcs/Ets?	comp	outcrop	25	3	10	42	-50
17618	556	354411	5357964	Etfg	comp	float	27	2	13	32	-50
17619	557	354419	5357958	Eba	comp	outcrop	72	25	16	83	-50
17620	558	354428	5357941	Eba	comp	outcrop	67	2	10	78	-50
17621	559	354553	5357859	Etmg	comp	subcrop	61	75	-3	48	-50
17622	560	354583	5357863	Etmg	comp	subcrop	48	43	3	43	-50
17624	562	354700	5357820	Etmg	comp	subcrop/float	49	8	4	39	-50
17625	563	354702	5357775	Etmg/Etcg?	comp	subcrop/float	51	15	9	44	-50
17626	564	354247	5357462	Etfg	comp	outcrop	82	60	7	60	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17627	565	354198	5357452	Etmg	comp	subcrop	72	14	-3	38	-50
17628	566	354223	5357525	Etmg	comp	float	60	47	-3	47	-50
17629	567	354171	5357490	Etmg	comp	float	26	16	4	33	-50
17630	568	354182	5357464	Etfg	comp	float	35	5	6	31	-50
17631	569	354220	5357384	Etmg	comp	subcrop	58	20	10	40	-50
17632	570	354242	5357189	Esm?	comp	outcrop	110	403	48	230	-50
17633	571	354258	5357184	Esm	comp	outcrop&float	102	46	13	77	-50
17634	571	354275	5357183	Esm	comp	outcrop	156	35	10	103	-50
17635	571	354264	5357186	Esm	grab	outcrop	238	111	12	108	-50
17636	571	354267	5357184	Esm	grab	outcrop	160	446	9	70	55
17637	572	354222	5357200	Esm	comp	float	78	43	30	63	-50
17638	573	354192	5357174	Ets?	comp	float	90	57	73	163	-50
17639	574	354194	5357156	Esm	comp	float	84	82	17	209	-50
17640	575	354240	5356954	Sc	comp	float	11	5	18	38	-50
17641	576	354326	5357018	Sc	comp	float	13	20	20	38	-50
17642	579	354233	5357013	Ets?	comp	outcrop	175	12	3	57	-50
17643	580	354245	5357039	Ets/Esm	comp	outcrop	31	49	23	95	-50
17644	581	354295	5357070	Esm	comp	float	50	7	3	64	-50
17645	582	354385	5357071	Etfg/Esm?	comp	outcrop	467	43	3	521	-50
17646	583	354406	5357080	Etsl	comp	outcrop	68	48	17	58	-50
17647	584	354460	5357095	Etsl	comp	outcrop	187	46	1060	237	945
17648	585	354489	5357106	Etsl	comp	outcrop	43	42	31	98	-50
17649	586	354520	5357120	Etlg/Etc	comp	outcrop	27	21	13	67	-50
17650	587	354536	5357139	Etlg	comp	outcrop	62	75	18	97	-50
17651	588	354542	5357172	Etc/Um	comp	outcrop	189	13	18	100	-50
17652	589	354540	5357207	Etlg	comp	outcrop	61	17	8	47	-50
17653	590	354530	5357268	Ets	comp	float	52	67	22	73	-50
17654	591	354548	5357236	Etc	comp	float	37	41	16	48	-50
17655	592	354558	5357181	Ets	comp	float	49	77	11	41	-50
17656	593	354540	5357161	Esm?	comp	outcrop	645	17	70	145	-50
17657	594	354610	5357186	Ets?	comp	float	59	16	15	40	-50
17658	594	354610	5357186	Etsl	grab	float	42	78	10	22	-50
17659	595	354565	5357565	Etfg	grab	float	75	13	-3	108	-50
17660	596	354326	5357205	Ets	comp	float	88	859	85	107	-50
17661	596	354326	5357194	Esm	grab	float	117	52	15	187	-50

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Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17662	597	354995	5357614	Etsl	comp	outcrop	47	30	31	135	-50
17663	598	355005	5357125	Etfg	comp	outcrop	66	22	27	149	-50
17664	598	355026	5357644	Etsh/Etsl	comp	outcrop	51	137	22	79	-50
17665	599	355013	5357633	Ets	comp	outcrop	54	60	18	82	-50
17666	600	355036	5357656	Etfg/Etlg?	comp	outcrop	59	12	20	74	-50
17667	601	355040	5357680	Etfg	comp	outcrop	64	27	16	67	-50
17668	602	355037	5357703	Etsh/Etsl	comp	outcrop	246	3280	37	74	-50
17669	603	355040	5357724	Etfg/Etlg?	comp	outcrop	58	21	8	59	-50
17670	603	355034	5357726	Etfg	comp	outcrop	20	51	14	40	-50
17671	604	355030	5357751	Etsl	comp	outcrop	43	40	35	108	-50
17672	605	355012	5357786	Etmg	comp	outcrop	40	32	25	83	-50
17673	606	355054	5357797	Ets	grab	outcrop	19	12	46	84	-50
17674	606	355063	5357801	Ets	comp	outcrop	49	90	46	172	-50
17675	607	355100	5357823	Etmg	comp	outcrop	35	29	59	127	-50
17676	607	355111	5357840	Etmg	grab	outcrop	31	19	43	105	-50
17677	608	355130	5357849	Ets	comp	outcrop	39	32	32	113	-50
17678	609	355156	5357867	Etmg	comp	outcrop	26	19	100	86	-50
17679	610	355168	5357874	Etcg	comp	outcrop	36	24	51	87	-50
17680	611	355170	5357869	Etsl	comp	outcrop	37	78	28	105	-50
17681	612	355174	5357836	Etsl	grab	outcrop	27	33	53	115	-50
17682	614	355200	5357860	Etc	comp	outcrop	34	26	36	98	-50
17683	615	355234	5357900	Etmg	comp	outcrop	37	29	118	114	-50
17684	615	355234	5357900	Dsp	grab	outcrop	50	68	132	200	-50
17685	616	355260	5357480	Dqm	comp	float	-3	5	-3	4	-50
17686	617	355098	5357481	Etmg	comp	float	88	23	13	160	-50
17687	618	355080	5357481	Etsh/Etmg	comp	float	65	40	9	111	-50
17688	619	355031	5357553	Etmg	comp	subcrop	69	42	4	58	-50
17689	620	355900	5357780	Etsl	grab	float	38	107	99	365	-50
17690	621	355895	5357796	Etsl	grab	outcrop	88	13	23	94	-50
17691	622	355838	5357847	Ets?	comp	outcrop	65	13	14	44	-50
17692	623	355703	5357920	Etfg	comp	outcrop	47	52	44	126	-50
17693	625	355621	5357690	Etmg	comp	float	73	57	22	115	-50
17694	626	355766	5357786	Etmg	comp	float	87	115	28	117	-50
17695	626	355766	5357786	Dcs	comp	float	62	18	180	172	-50
17696	627	355774	5357724	Etmg	comp	float	144	71	18	148	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17697	628	355790	5357700	Ets/Esm?	comp	outcrop	54	17	53	154	-50
17698	629	355797	5357687	Ets/Dcs	comp	outcrop	55	128	23200	7500	-50
17699	630	355645	5357415	Dqm	comp	subcrop	205	16	151	113	255
17700	631	355691	5357406	Dqm	comp	subcrop	37	11	37	59	110
17801	632	355722	5357394	Dqm	comp	float	12	15	295	114	-50
17802	633	355640	5357344	Esm	comp	float	117	13	23	125	-50
17803	634	355621	5357414	Dqm	comp	float	32	19	22	27	140
17804	635	355562	5357435	Dqm	comp	subcrop	149	26	30	43	145
17805	636	355519	5357431	Dqm	comp	float	645	11	55	152	65
17806	637	355375	5357885	Ets	comp	outcrop	79	96	18	101	-50
17807	638	355376	5357566	Ets	comp	float	75	72	14	37	-50
17808	639	355356	5357530	Ets/Esm?	comp	float	32	19	30	90	-50
17809	640	355344	5357514	Ets	comp	outcrop	112	105	52	212	-50
17810	641	355325	5357485	Etfg	comp	outcrop	71	12	19	136	-50
17811	642	355222	5357746	Etmg	comp	float	130	31	13	93	-50
17812	643	355222	5357758	Etsl	comp	float	47	150	119	73	-50
17813	644	355158	5357705	Etmg	comp	float	94	54	25	62	-50
17814	645	355138	5357712	Etmg	comp	float	73	19	31	100	-50
17815	646	355513	5357452	Etmg	comp	float	200	11	49	224	-50
17816	647	355500	5357453	Ets/Esm?	comp	float	371	4	36	268	-50
17817	648	355470	5357456	Dss/Ets/Esm	comp	subcrop	108	12	161	298	-50
17818	650	355423	5357531	Esm	comp	outcrop	35	10	20	127	-50
17819	651	355456	5357510	Etlg/Dcs	comp	outcrop/subcrop	70	67	88	124	-50
17820	651	355456	5357510	Ets?	comp	subcrop	76	187	108	133	-50
17821	652	355131	5357458	Dqm/Etsl	comp	float	5	24	12	9	-50
17822	653	355146	5357278	Etmg	comp	outcrop	422	82	157	714	-50
17823	655	355206	5357338	Etsl	comp	outcrop	111	16	16	206	-50
17824	656	355290	5357434	Etsl	grab	outcrop	73	80	30	369	-50
17825	658	355414	5357250	Etlg	comp	float	54	34	38	90	-50
17826	659	355430	5357148	Etc	comp	outcrop	88	31	37	398	-50
17827	660	355422	5357433	Etmg/Esm?	comp	float	86	10	25	340	-50
17828	661	355990	5357642	Eba	grab	float	165	10	6	76	-50
17829	662	355990	5357737	Eba	comp	outcrop	108	87	63	149	-50
17830	663	355990	5357778	Dqm?	comp	float	13	15	17	23	-50
17831	664	355990	5357843	Eba	comp	outcrop	61	10	18	83	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17832	665	355534	5357240	Ets/Etlg?	comp	float	151	49	44	265	-50
17833	666	355534	5357220	Ets/Esm?	grab	float	108	167	48	127	-50
17834	666	355534	5357220	Ebag	comp	outcrop	98	77	45	226	-50
17835	667	355558	5357168	Ebag	comp	outcrop	232	101	77	516	-50
17836	668	355564	5357162	Ebag	comp	outcrop	128	47	21	188	-50
17837	668	355564	5357162	Ebag	grab	outcrop	146	330	48	139	-50
17838	669	355588	5357122	Os	comp	outcrop	280	64	56	1055	-50
17839	670	355586	5357094	Oc	comp	outcrop	34	30	176	918	-50
17840	671	355590	5357060	Oc	comp	outcrop	405	16	88	867	-50
17841	672	355578	5357028	Oc	comp	outcrop	253	12	75	743	-50
17842	673	355568	5357010	Oc	comp	outcrop	497	60	140	848	-50
17843	674	355693	5357053	Oc	comp	float	51	8	38	978	-50
17844	675	355776	5357183	Esm?	comp	outcrop	1405	19	623	1380	-50
17845	676	355777	5357210	Esm?	comp	outcrop	612	8	85	732	-50
17846	677	355788	5357259	Dqm/Esm	comp	outcrop	223	14	229	184	-50
17847	678	355787	5357276	Dm/Esm	comp	outcrop	1250	3	249	320	-50
17848	683	355120	5357180	Etmg	comp	float	71	61	89	169	-50
17849	684	355091	5357177	Etmg	comp	float	62	42	42	170	-50
17850	685	355064	5357174	Etsl	comp	outcrop	76	76	76	225	-50
17851	686	355065	5357149	Esm?	comp	float	68	68	69	99	-50
17852	688	355095	5357081	Os	comp	float	62	5	44	676	-50
17853	689	355113	5357090	Os	comp	float	90	9	21	368	-50
17854	690	355327	5357095	Tbr?	grab	float	89	20	299	178	-50
17855	691	355332	5357074	Oc	comp	float	6	9	27	46	-50
17856	693	355395	5357096	Tbr?	comp	outcrop	95	434	689	420	-50
17857	694	355384	5357138	Os	comp	outcrop	129	27	40	160	-50
17858	695	355375	5357161	Ets	comp	outcrop	31	40	14	92	-50
17859	699	354815	5357268	Etc	comp	float	111	21	31	87	-50
17860	700	354788	5357269	Etc	comp	outcrop	53	7	35	47	-50
17861	701	354760	5357263	Etc	comp	outcrop	96	80	30	65	-50
17862	702	356010	5357291	Dqm	grab	float	5	25	26	70	-50
17863	703	355975	5357297	Dqm	comp	outcrop	18	15	24	84	-50
17864	704	355992	5357226	Dqm	comp	float	24	49	610	65	470
17865	705	356001	5357235	Dqm/Etc?	comp	float	27	17	40	44	-50
17866	706	356043	5357149	Dqm/Os?	comp	outcrop	80	121	249	249	55

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
17867	707	356044	5357126	Dqm	grab	float	19	8	7	18	-50
17868	708	355996	5357130	Tbr?	comp	outcrop	47	188	320	126	-50
17869	713	355899	5357180	Esm?	comp	float	208	39	168	821	-50
17870	714	355893	5357285	Etsl	comp	outcrop	93	33	86	197	-50
17871	715	355898	5357288	Etsl	comp	outcrop	141	51	125	372	-50
17872	716	355907	5357295	Etfg	comp	outcrop	170	47	188	640	-50
17873	717	355934	5357324	Ets	grab	outcrop	180	216	605	750	-50
17874	718	355944	5357330	Etsl	comp	outcrop	122	60	250	357	-50
17875	719	355800	5357215	Esm?	comp	float	252	60	702	387	100
17876	720	355802	5357188	Esm?	comp	float	268	20	83	273	-50
17877	721	355704	5357168	Ebag	comp	float	84	6	19	122	-50
17878	722	355705	5357190	Ebag?/Esm	comp	float	136	8	17	212	-50
17879	723	355708	5357346	Dqm	comp	float	8	5	7	32	-50
17880	724	355710	5357366	Dqm	comp	outcrop	152	14	50	154	330
17881	725	354627	5357750	Etlg	comp	outcrop	72	113	6	40	-50
17882	726	354642	5357752	Etsl	comp	outcrop	79	71	6	69	-50
17883	727	354696	5357732	Etsl	comp	outcrop	93	29	24	77	-50
17884	729	354704	5357661	Etsl	comp	outcrop	92	94	13	91	-50
17885	731	354830	5357633	Etfg	comp	outcrop	52	32	5	98	-50
17886	732	354834	5357645	Etfg	comp	outcrop	83	51	20	77	-50
17887	733	354924	5357778	Etfg	grab	float	104	13	-3	52	-50
17888	733	354924	5357778	Etmg	grab	float	13	6	15	24	-50
17889	734	354824	5357735	Etfg	grab	float	24	10	15	38	-50
17890	735	354396	5357735	Ebag	comp	float	32	7	13	32	-50
17891	736	354385	5357795	Esm?	grab	float	34	215	10	41	-50
17892	736	354385	5357795	Ets?	grab	float	47	360	15	26	150
17893	736	354385	5357795	Dcs/Ets?	comp	float	46	48	19	30	95
17894	737	354395	5358090	Dss	comp	outcrop	13	10	16	38	-50
17895	737	354395	5358090	Ets?	comp	outcrop	14	6	6	53	-50
17896	738	354390	5358108	Etmg	comp	outcrop	80	158	7	43	-50
17897	740	354391	5358235	Ets?	grab	float	100	510	5	60	-50
17898	742	354410	5358236	Ets	comp	outcrop	46	17	5	55	-50
17899	743	354406	5359134	Ebag?/Esm?	comp	outcrop	28	6	-3	23	-50
17900	744	354445	5359082	Etmg	comp	float	77	17	3	35	-50
30051	745	354740	5358582	Dcs	comp	float	37	7	28	47	-50

Avebury Sample Catalogue(cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30052	746	354778	5358518	Ebag	comp	float	20	128	12	71	-50
30053	747	354820	5358484	Dss	comp	outcrop	60	710	82	875	-50

Appendix 2: Trial Harbour Sample Catalogue

Trial Harbour Sample Catalogue

Sample No.	Field No.	Description
30054	748	gn & dgn semi-perv mag & dss(w/m), pgn sil-serp(m/s, locally), mica-vnd(tr), pyrrh(tr)
30055	749	Fault Zone, dgy&bn boudinaged mg q-sst, interbedded shale locally bearing py(2%), minor fault breccia bearing sil-mag clasts
30056	750	dgrey chert/sh, rd/bn sil-py vnd(m/s), py(1-4%, fg dss)
30057	751	dgrey hornfels and chert, py(5%, local), pgn sil-serp(tr, semi-perv & vnd), bn sil(w, vnd & perv), fol(w, local)
30058	752	dgrey/bn hornfels/fg sst, joints(m), local fol(m), pyrrh(tr-3%), bn sil(tr)
30059	753	dgrey hornfels/sil(w/m), py(2-6%, dss), patches crm&lht bn sil with mag (dss)
30061	754	dgrey/bk msv fg hornfels (sed/Um?), crm sil bands, py(tr-1%), patches fg msv serp(tr), bn cg mica vnd(tr), msv mag(w, local)
30060	755	cg Ultramafic, pyrrh(0.5%), pent?(tr)
30062	756	dgrey foliated zone/schist, pyrrh(1-7%, dss), bn sil(w, local), crm sil-vnd(w)
30063	757	schist/fault zone, fol(m), perv sil(m)-py(1%), sub rounded clasts sil-py
30064	758	grey sh & silicified slst, py(4%, local), sil(w/m), strongly folded, numerous microfaults
30065	759	grey sh & silicified slst, py(4%, local), local sil-py, strongly folded, microfaults
30066	761	dgrey/bn pyritic(0.5%) hornfels
30067	762	dgrey/bk hornfels, py(0.5%, dss), sil-py vnd(tr), perv? sil(w/m), crm calc-sil(w), pgn sil-serp(w/m, local), foliated and microfaulted zones
30068	763	Fault zone, minor breccia, boudins, mag vnd & patches(m/s), pgn sil-serp(s), relict Um? & hornfels gwacke textures?
30069	764	pgn msv fg/mg ultramafic?, sil-serp-mag(w/m, local), mag(w/m, locally m), fol(w), q-vnd(tr)
30070	765	pgn msv fg/mg ultramafic?, sil-serp-mag(w), mag(w/m, locally m), fol(w), q-vnd(tr, locally vuggy), dextral wrench microfaults
30071	766	mg Um, equigranular feldspathic locally, mag(w/m)
30072	767	pgn fg/mg Um/dunite, sparse cg spinifex texture, sil-serp-mag(w/m, local), perv serp(m, local), trace fault breccia
30073	768	dgrey/gn fg/mg Um, serp-vnd(tr) & perv(w/m), mag-vnd(tr), q-vnd(tr), perv bn-sil(m?)
30074	769	lht bn/pgn mg Um, mag (m, dss & vnd), pgn sil-serp(w)
30075	770	Ultramafic, cobble-conglomerate-like texture local with wrapping fol, fg/mg matrix, mag(tr, dss)
30076	771	msv, mg Ultramafic, mag(w, dss), serp(w)
30077	772	Um, pgn sil-serp(w), serp(m), mag (w, dss), congl-like texture local, flat parting
30078	773	fg/mg wed lht bn/gn Um, serp(w), mag(w, dss)
30079	774	Ultramafic, conglomerate-like texture local with wrapping foliation, spinifex texture (tr), serp(w/m), mag(tr, dss)
30081	775	msv fg Um, local strong flat parting, serp(w/m), mag (tr, dss), py?(tr)
30080	776	msv fg Um, serp(w/m), mag (tr, dss), py?(tr)
30082	777	vfg/aphanitic Um ,spinifex textured, serp(w), mag(w,dss)
30083	778	pgn fg/mg Um, serp(w), mag(w,dss)
30084	779	msv mg Um, sil-serp/serp(w/m), pyrrh(tr)
30085	779	gn msv Um, serp(m), pyrrh(1%, dss), fine joints on outer surface
30086	779	msv magnetite vein (40cm wide), bluish chert on S contact
30087	780	mg q-sst with feldspathic matrix and interbdd thin bdd slstand fg q-sst
30088	781	vpgn siliceous fg hornfels slst, fol(m/s) and sheared zones

Trial Harbour Sample Catalogue

Sample No.	Field No.	Description
30089	782	Faulted zone, pgn fol(m/s), fg sst & slst, sil-serp(m), crm calc-sil(m), clasts/zones serp(m/s)
30090	782	lht bn fg/mg gwacke, vnd dgn serp and crm calc-sil(w/m, local)
30091	783	bn/dgrey thin bdd fg gwacke&slst, serp-vnd(w/m) with crm margins, silvery sulphide(tr), py(0.5%, local)
30092	784	bn hornfels fg gwacke&slst, gn sil-serp(w/m), py(tr, dss)
30093	785	bn hornfels gwacke&slst, gn sil-serp(w/m), py(0.5%, dss)&silvery sulphide(tr), serp-vnd(w)
30094	786	dgrey hornfels(m) slst, py(tr, dss&vnd)
30095	787	bn fg hornfels fg gwacke, weak open folding, py(tr, dss on joints), sil-serp-vnd(tr)
30096	788	bn fg hornfels lam fg gwacke&slst, py(tr, dss)
30097	789	bn fg/mg gwacke, trace patches serp(m)
30098	790	Breccia-textured lht bn hornfels(s) with tan mg q-sst clasts locally evident, hackly exterior, pervassive bn sil(s), mag-vnd(w/m), q-vnd(w/m), wed FeO-vnd(m)
30099	792	gn mg mafic gabbro (25% often accicular feld), serp(m), sil-serp-vnd(w), sulphide?(tr)
30100	793	gn serp(w/m), relict mg mafic, patchy sil(w/m)
30451	794	dgn Um, serp(m/s), pgn serp-sil-vnd(w/m)
30452	795	lht bn Tbr?, sil(s), sil-mag-vnd(w), bn sil-vnlts with drussy q(w)
30453	796	bn hornfels, sil(m/s), drusy-q lined vugs(w)
30454	797	bn hornfels, sil(m/s), bn sil-vnd with drusy-q lined vugs(w/m), semi-perv mag(w/m),
30455	797	gn serp(m/s) Um, mag(s/40%, vnd & semi-perv)
30456	798	pgn mod wed serpentinised mafic/msv serp(s), mag vnd(w) & dss(0.5%), appears leached
30457	799	lht gn mod wed serpentinite(s), mag(w/m, semi-perv vnd), bleached appearance
30458	800	lht gn mod wed serpentinite(s), mag(w/m, semi-perv vnd)
30459	801	crm siliceous breccia-textured vfg sst/slst?, bk mag-vnd(w/m)
30460	802	float pgn wed/bleached Um, mag(w to w/m, vnd)
30461	803	subcrop and float pgn wed/bleached Um, mag(w to w/m, vnd)
30462	803	bn sil(s) hornfels?, mag(w/m)
30463	804	crm fg siliceous q-sst&qtzite
30464	805	crm mg q-sst, perv sil(m)
30465	806	crm/lht bn slst & pkish vfg siliceous sst
30466	807	lht bn fg sst, bn sil(w), sil-serp(tr), local hackly exterior
30467	809	mg/cg q-sst, local granule-q-sst, mag(tr, dss)perv sil(w, local), sil-serp(w)
30468	809	cg lithic q-sst, bn slst & fg arkose sst lithics, gn flecks-serp?
30469	811	mg/cg q-sst, perv matrix sil(w/m), gn serp flecks(w), mag-vnd(tr)
30470	812	wed q-sst & crm siliceous fg sst
30471	813	pgn siliceous(sil-w) sst?, serp-vnd(tr) & flecks(w), calc-sil?(w), mag/chromite?(w, dss),
30472	813	dgrey schist, fol(s), serp?(w), FeO stain(w)
30473	817	granule-pebble congl, bearing grey fg/mg q-sst & grey siliceous clasts, mod lithified

Trial Harbour Sample Catalogue

Sample No.	Field No.	Description
30474	818	dgn mg f-phc(25%) Um, weakly spinifex-like f, perv-serp(m), serp-vnd(w/m). sil-serp(w/m, local)
30475	819	gn sil-serp(m/s) Um?, weak gabbroic texture locally
30476	820	dgn sil-serp(w/m),.serp(m) Um, serp-vnd(m, local), crm sil-vnd(m, local)
30477	821	dgn sil-serp(m), serp(m) Um, mg equigranular texture?, serp-vnd(m, local)
30478	822	bn siliceous(s) rock with lht bn drusy q vn's(w), bk chromite/mag?(<1%)
30479	823	lht bn, fol(m), siliceous rock(fault zone?),
30480	824	scattered siliceous fg q-sst scree
30481	825	granule q-lithic cg q-sst&mg q-sst, sil(w, locally m), truncated cross bedd. also crm perv sil(m), mag(1%, dss), lht gn serp flecks(w) float.
30482	827	lht bn/gn fg q-sst, pgn sil-serp(w), serp-flecks(w)
30483	828	granule-q-sandstone, matrix perv sil(m), bk dss mag?(w)
30484	829	lam grey &lht bn slst
30485	830	float, crm perv-sil(s)-mag(tr). Also less altered pgn siliceous sst&fg/mg q-sst
30486	830	pgn sil(w/m) hornfels/siliceous lithic q-poor-sst?
30487	832	pgn siliceous fg q-sst& q-grain-lithic-fg-sst, crinoid trace fossils?
30488	833	crm&gn wed fg mafic-gabbro?(35% feld), gn serp(w) flecks after mafics, serp-vnd(w)
30489	834	lht gn wed mafic&serpentinite, msv serp(m/s), wed fg gabbro with serp-vnd(m), siliceous zones & siliceous slst? locally
30490	835	dgrey finelly fol(m/s), schist, FeO-vnd(tr)
30491	836	float, crm sil(m) q-sst, pgn siliceous-micaceous fg sst & lht gn fol(w/m) slst interbdd sst.
30492	839	crm sil(m/s) q-sst with mag(tr, dss) & gn fg/mg Um, serp(w/m), q-vnd(tr)
30493	840	perv&vnd-sil(w-vs), fg siliceous sst, py(tr, dss, cubic)
30494	840	wed silicified equigranular Um?
30495	841	crm siliceous rock, mag?(tr, dss), relict mafic/slst? & siliceous fg sst
30496	843	fg/mg mafic/gabbro?(feld 40%)
30497	844	fg gwacke & lam grey/pgn slst
30498	845	mg/cg quartzo-feldspathic-lithic sst
30401	847	dgn to dgrey mg/cg Um, sulphide(tr), mag-vnd(w/m), minor spinifex texture
30402	848	crm&pgn sil(s) relict congl layer within dgrey lam slst, serp(w, patchy), mag(tr), py&pyrrh(<0.5%)
30403	848	thin bdd dgrey sh/slst & mg gwacke/hornfels, pyrrh&py(<0.5%,to 2% locally), q-py-vnd(tr)
30404	849	fg gwacke & lam grey/pgn slst, bn semi-perv streaky sil, py&pyrrh(0.5%, 4% local), py-vnd(tr), q-vnd(tr)
30405	849	sil(s) granule-congl, crm&gn chalcedony(w)
30406	850	dgrey chert/slst, py(1%, dss&bndd) & lht bn hornfels, py-serp-vnd(w)
30407	851	Fault zone, fol(m) with hackly texture after crm sil(m), sil-serp(m)
30408	851	Fault zone?, local weak breccia texture, grey and crm sil(m, locally S, mag tr), local fg q-sst & mg quartzo-feldspathic sst texture(Sqf).
30409	852	Tectonic Melange?, chaotic bdd purple &gn slst with siliceous gn sst interbdds(Su?), large zones (to 20*8m) sulphidic lht bn chert(Ets), mg q-sst(Sc), overall
30410	853	lht bn lam/thin bdd slst, py(0.5%), calc-sil(tr)

Trial Harbour Sample Catalogue

Sample No.	Field No.	Description
30411	854	thin bdd slst?, crm sil(m/s), calc-sil(tr), gn sil-serp(m), open minor anticline
30412	855	thin bdd slst?, crm sil(m/s), gn sil-serp(m), moderatelly tight recumbent folds
30413	856	indurated, deformed, grey thin bdd slst
30414	857	indurated, deformed, grey thin bdd slst, sil(m/s)-py(0.5%, dss)-mag(w, ds) locally
30415	859	Silicified(m/s) mg&fg q-sst, mag(tr, dss), py(tr)
30416	862	thin bdd slst, zones crm sil(m/s), pyrrh(0.5-2%), pgn sil-serp(w)
30417	863	q-feldspathic(10%) mg sst, sil(m)
30418	864	grey thin bdd slst, crm wispy calc-sil/skarn-like patches with pyrrh(tr), py(tr), patchy sil-serp(w)
30419	865	grey thin bdd slst, crm wispy calc-sil/skarn(m) with pyrrh(tr-0.5%), gal?(tr), sph?(tr), patchy sil-serp(vw)
30420	866	crm&grey thin bdd slst, sil(m), sil-serp(w), pyrrh(tr), py(tr)
30499	871	med bdd sst, truncated crossbeds, scree granulte-lithic sst & indurated mg q+/-F-sst
30500	875	float, grey slst/sh, fol(m), bn FeO-vnd(w/m) and fg fol(m), vfg gwacke sst
30421	876	slst, mg gwacke & mg mafic volcaniclastic sst?, hornfels(w)
30422	877	grey slst/sh, fol(m), FeO-vnd(w), sil-FeO-vnd(w), py(0.5%, fol planes)
30423	878	pyritic bk sh, py(2-4%, painted on cleavage)
30424	880	grey lam sh, py(tr), MnO rind
30425	882	dgrey sh, fol(m/s), indurated(m)
30426	883	dgrey sh, fol(m/s), indurated(m), py(1%)
30427	884	dgrey sh, fol(m/s), indurated(m), py(1%)
30428	885	rd wed mg lithic-gwacke, sparse q-lithics
30429	887	grey/lht bn sil(m/s) slst, q-vnlts(m/s), hm(w, specular & pk stain)
30430	888	pebble congl, mod consolidated, clasts mostly mg q-sst(chromite/mag tr) in gnish q-sst matrix
30431	890	kaki mg gwacke
30432	891	lht bn chert. sil(m), mag?(w, dss)
30433	892	grey slst
30434	893	wed crm&gn flecked Um, pgn mg weakly porphyritic Um
30435	894	crm to pgn sil-serp(w) with py-vnd(1%, 3% local), crm sil(m/s), late crm calc-sil-mag altered(m, local)
30436	895	lht bn sil(s), crm semi-perv calc-sil(m), sil-serp-vnd(w), pyrrh(2%), py(0.5%)
30437	896	pgn sil-serp(s), cg mag(w,1% dss), gn chalcedony vnd&flecks(w), pent(tr), pyrrh(#% local), mag(w/m)
30438	897	Fault zone? crm/tan to pgn wed serp, fol(m, local), brecciated zones with relict sed clasts?
30439	898	Fault zone/breccia, mostly pgn wed serp, joints(m), clasts? to 2m, zones fault gouge with fibrous slickensided serp, q-vnd+/-serp
30440	899	wed gn mg Um, calc-sil-bnd(w,local), fol(m), local sil-serp(m)-mag(w, dss)
30441	900	tan wed Um, mag-vnd(w/m), pgn sil-serp(m?)
30442	901	tan wed Um, mag-vnd(w/m), pgn sil-serp(m?), q-vnd(tr), slickensides(w, local)
30443	902	crm/tan mg wed Um, serp(m), sil-serp(m/s), mag(m, cg dss)

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Sample No.	Field No.	Description
30444	903	wed fault breccia, dgn serp(s), FeO(m, zones)
30445	904	lens msv mag(s) in sil-serp(w/m), bluish chalcocite?(sparse)
30446	905	msv lht bn/mauve sil(s), sil-serp-vnd&patches(m), crm calc-sil-vnd(w), sulphide(tr), locally dgrey chert with bn sil-vnd
30447	906	Fault zone?, dgrey fol(w/m) chert&hornfels, local Um texture, dgrey sulphide(tr, 1% local)
30448	907	dgrey mg q-lithic hornfels gwacke, pyrrh(0.5%), mag(vw)
30449	908	bn hornfels, serp-pyrrh(0.5%)-vnd(w), patchy lht bn sil(m) overprint, crm calc-sil-vnd(w, local)
30450	909	msv mag-vnd(s), selvages of tan wed serp/Um, crm calc-sil-vnd(w)
30901	910	pgn perv sil-serp(s), mag(w/m, dss&vnd)
30902	911	crm to lht gn perv sil(s)-serp(w), mag(w/m, dss&vnd)
30903	912	crm to lht gn perv sil(s)-serp(w), mag(w/m, dss&vnd), serp-vnd(tr, local), sulphide(tr), relict Pou texture?
30904	914	hornfels, lht bn sil(s, axinite?) local, serp flecks&vnd(w), crm wispy calc-sil(tr, local s with sil-serp overprint), py(tr)
30905	915	pgn fg micaceous sst, serp-vnd(w/m) local, fol(m)
30906	916	Um wall rock in trench, vuggy silica, local chalcedony, common saccharoidal mg silica, local granule-sst-like as vein-like occurence
30907	917	gn mg wed Um, serp?(w/m), mag(w/m, dss&vnd)
30908	918	pgn wed Um, mag(w/m, dss), fol(w/m), serp(w)
30909	919	pgn wed Um, fol(w/m), mag(w/m,dss)&vnd(w)
30910	920	yellowish gn Um, fol(m/s), mag(m,dss)
30911	921	pgn Um, sil-serp?(m), fol(m), mag dss&vnd(m), sparse breccia texture
30912	922	pgn Um, sil-serp?(m), fol(s), mag dss&vnd(m/s)
30913	923	pgn Um, fol(m), mag-serp-vnd,(m/s)
30914	924	Um, fol(m)
30915	925	Fault zone, wavy fol&crush zone, local breccia, pgn/crm sil-mag overprint(s)
30916	926	pgn/crm perv sil(s), mag vnd&semi-perv zones(m/s), py?(tr), relict fol
30917	927	pgn sil(s), mag vnd&dss(m), py(tr), pyrrh(tr), sph?(tr), relict lam bdd
30918	928	pgn sil(s)+/-serp, mag(m), py dss&vnd(0.5%)
30919	929	grey sil(s)&pgn sil-serp(w), gn serp-vnd/zones(w/m), pyrrh(0.5%), py/cpy(0.5%)
30920	930	pgn sil(s), mag(w/m), gn serp zones(w/m), pent?(<0.5%), pinkish mackinawite?(tr)
30921	931	crm&gn sil-serp, mag(w/m), suulphide(tr), , local semi-msv mag&fol(m/s)
30922	932	gn sil-serp(m), msv serp(m), mag(tr), pyrrh(0.5%), py?(tr-0.5%), pinkish/bn mackinawite?(tr), crm wispy calc-sil(w), minor chert unsampled
30923	932	dgrey indurated(s), py(5%, dss&vnlts), gwacke?
30924	933	dgrey siliceous chert?, py (fg msv bnd&dss, 1%), bn mica(m,10%)
30925	934	grey sil(m), vfg py(20% local, bndd&vnd), fol(m/s, local), lam slst&sh
30926	935	crm&grey sil(m/s), py(4%), q-vnd(tr)
30927	936	dgrey indurated(s), fg/aphanitic msv Um/chert?
30928	938	granule-pebble q-lithic q-sst, perv&vnd chalcedony, local bn/gn agate, milky-vn-q clasts(to 2 by 5cm)

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30929	940	wed kaki/gn mg Um, fol(w, locally m/s)
30930	941	gn/pgn mod wedmg Um. fol(w), hem-chalcedony-vnd(w/m) bearing native Cu?(tr), mag(w), sulphide?(tr), latedrusy q-vugs in chalcedony vns
30931	943	dgrey cg hornfels gwacke, minor chert, bn semi-perv &vnd sil(w)
30932	944	dgrey chert&hornfels mg gwacke, pgn perv sil-serp(m), crm calc-sil(tr), mag(vw), msv serp-q-vnd(tr)
30933	945	Fault zone? dgrey&pgn sil-serp(m), sil-axinite?(w), serp-vnd+/-sil-sulphide(w), mag(w,dss), pyrrh(to 3%), py(tr), joints(m/s), chert frags
30934	946	Fault Zone? rock frags incl. chert&mg gwacke, perv serp(m) sulphide(tr), Um? and sil-serp(s)-mag(w,dss)-py?(tr)
30935	947	Fault breccia, heterolithic float of fg dgn serp(m/s) Um py?(tr), dgrey chert with serp-vnd(w/m)&py?(tr), sil-serp(s) with pk sil-ax?(s), chert fol(s)&gwacke
30936	948	Fault breccia, heterolithic float, jointed(s)&fol rock, msv Um, serp-vnd gwacke-py?(tr-2%)
30937	949	dgn mg Um, serp(m), pyrrh(0.5%)
30938	950	crm micaceous(w) siliceous thin bdd slst
30939	953	lam slst, perv sil-serp(m/s), py(tr,dss)
30940	954	mixed float of fol dgrey schist+-q-vnd, perv serp&minor FeO(w/m) stained sil(m/s)
30941	955	dgrey/gn chert&mg gwacke, clast-like locally, perv serp(m), mag(w), pyrrh(1-3%), crm calc-sil(w)-vnd
30942	956	mixed fault breccia? float of dgrey/gn mg gwacke&chert, msv serp(Um?), sil-serp(s)+-mag, fg Um-serp(m)&sparse sil(m) perv serp(m) pyrrh(5%)
30943	957	dgn/grey perv serp(m) fg Um?, grey sil(w), wispy calc-sil(m), dss fg pyrrh(2-15%local), mag(w)
30944	958	fg/mg serp(m) Um, crm&grey calc-sil(w/m)-bndd, pyrrh(0.5-5%local), q-vnd(tr)
30945	959	dgn msv fg/mg feldspathic(20%) mafic gabbro, serp(w/m), pyrrh(tr-locally2%)
30946	960	dgn msv serp(m) Um with mafic gabbro texture locally, pyrrh(tr-3%), cpy?(tr), native Cu(tr), serp-vnd(w)
30947	962	float of dgrey/gn msv Um with serp-vnd(w/m), perv serp(m), pyrrh(1-2%,dss) & dbn chert, pyrrh(to 5%)
30948	963	float of msv sil(m) perv-serp(m) pyrrh(tr-0.5%) & minor bn chert? pyrrh(tr-4%)
30949	964	grey bdd-relict slst, dbn/grey hornfels mg gwacke sil(m), pyrrh(tr)& bn chert serp-vnd(w) local
30950	965	dgn mg mafic gabbro, serp ferromags, feld(25%), serp-vnd(w), pyrrh(tr), mag(w)
30951	967	grey chert&pgn sil-serp(s) pyrrh(tr)
30952	967	grey sil(vs), pgn sil-serp(m), pyrrh(2%,dss), dss bk grains(1%)
30953	968	grey msv sil/q-mag(w,dss), fragmental appearance, q-vnd(tr), relict sil-serp-pyrrh patches
30954	975	grey chert/slst, lam bdd local, zones grey sil-pyrrh
30955	977	pgn siliceous slst, q-vnd(tr)
30956	978	crm wed slst
30957	979	grey/crm sil(s)-dss bkmag?, common hackly breccia-like texture&mod fol irregular zones, bright gn flecks(tr)local
30958	980	Sil on faulted Um contact crm/grey sil-mag(w)-py(tr)local&float Su?, breccia texture common, zones msv serp with lime gn xtals(tr), py?(tr-1%local), irreg q-v
30959	980	pgn sil-serp(m), lime gn Annbergite? xtals(<0.5%), relict cg serp texture, Um?
30960	980	sil-serp(s), crysotile fibres, mag(w), lime gn Annbergite? flecks (0.5-1%)
30961	980	mostly msv serp(s) Um, lime gn(tr), q-vnd(m), py(tr-1%local)&sparse grey slst clasts
30962	981	wed ironstone mag(w/m) with sparse clasts/selvages mg q-sst,wed Um?&bk fol schist
30963	993	wed ironstone, mag(m), local crm siliceous & mg q-sst selvages,

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Sample No.	Field No.	Description
30964	994	ironstone float, fragmental breccia texture, mag(s)
30965	995	msv mag(s), local granular texture
30966	996	mixed float, crm/grey sil-vnd&perv(m/s) mag(w,dss), tan fg Um?, tan mg fol(w/m) vuggy q-mag-vnd & tan chalcedony-vnd(w) rocks
30967	997	bluish lht gn wed serp(m/s?)/Um, mag(m,dss&semi-perv vnd), perv-sil?(w), serp-vnd(w), fol/joints(w/m), relict mg texture
30968	998	gn perv-serp(s), mag(m,dss) Um
30969	999	pgn sil-serp(s), mag(w/m,dss), lime gn flecks(0.5%,dss&patches), pyrrh?(tr)
30970	1000	pgn sil-serp(s), mag(w/m,dss&vnd), q-vnd(tr), float boulders msv mag
30971	1001	gn&bk cg Um/mafic gabbro?, sulphide(tr-0.5%, localy silvery-skutterite?), zones of sil-serp(m) & crm/grey sil-mag-vnd(m)
30972	1002	contact between pgn sil-serp(s), mag(w), crm wispy calc-sil(m), sulphide(1%, local) & dgrey hornfels slst&mg gwacke
30973	1002	grab sample Um/Ets contact zone-grey&gn grey sil(s) gn sil-serp(m,flecks), pyrrh(8%), py?(0.5%), locally cherty
30974	1003	fg/mg hornfels gwacke, zones of serp-vnd(m/s,local)&py?-vnd(2%), sil-serp-pyrrh-vnd(tr)
30975	1006	fg/mg hornfels gwacke, sil-serp-vnd
30976	1007	grey chert, py?(0.5%), crm sil/calc-sil?(w)
30977	1008	dgn Um?, serp(m/s), crm calc-sil(w), serp-vnd(w)
30978	1008	foliated chert, serp-vnd(m)
30979	1009	crm&gn mg mafic gabbro
30980	1010	dgn serp(m/s), fg Um & minor laminated chert
30981	1011	Fault Zone in siliceous slst, highly disrupted beds/clasts, local fol(s), perv-sil(w), q-vnlts(tr)
30982	1012	wed lht gn Um, msv gndmass, fine bk+-sil-vnlts(w/m)
30983	1013	Ultramafic breccia, angular clasts to 15cm, mostly 0.5 to 3cm
30984	1014	wed lht gn Um, msv gndmass, fine bk+-sil-vnlts(w/m)& bk(mag?)-dss, joints/fol 2cm spaced
30985	1015	wed(w) Um, mag(w,dss&vnd), crm/grey sil(w), pgn sil-serp(m/s)-perv
30986	1016	Um, mag(m,dss&vnd), pgn sil-serp(m/s)-perv
30987	1017	Um, relict mg equigranular texture, crm sil-serp-flecks, mag(w)
30988	1018	lag/ o/c ironstone, local q-sst selvages, recent?
30989	1019	mg q-grains in bn FeO soil, recent/Qhr?
30990	1020	pgn relict mg Um, mag(w,dss, m local), sil+-serp(m/s), joint/fol 1cm spaced
30991	1021	pgn sil-serp(m/s), mag(m, dss&vnd), Um
30992	1022	pgn sil-serp(m/s), mag(m, dss&vnd), relict mg/cg Um local, flat 1cm spaced joints/fol local
30993	1023	relict Um, pgn sil-serp(m/s), mag(m, dss, local m/s)
30994	1024	recent (Qhr?), ironstone cover, locally pebbly mag-hm with q-sst bearing sparse granules
30995	1025	pgn sil-serp(m/s), mag(w/m,dss), Um
30996	1026	Um, pgn sil-serp(m/s), mag(m,dss&vnd), crm&lht bn chalcedony-vnd(tr)
30997	1027	gn relict Um, mag(m/s) as hm-mag stockwork-vnd, crm sil(tr)
30998	1028	fol(m/s) zone, lht gn wispy sil-serp(m/s), mag(m/s, dss&vnd), local relict mg Um

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Sample No.	Field No.	Description
30999	1030	fol(m/s) zone, lht gn wispy sil-serp(m/s), mag(m/s, dss&vnd), crm sil-vnd(w)
31000	1031	crm/wed FeO(w) Um, pgn sil-serp(m/s, local s), msv relict serp-vnd(w/m), lht bn chalcedony-vnd(w,local), mag(variable(w-m/s), fol(m/s), slickensides sparse
30751	1032	pgn sil-serp(m/s), mag(m,dss&vnd), fol(m), Um
30752	1033	pgn sil-serp(m/s), mag(w/m,dss&vnd), fol(m), Um
30753	1034	pgn bleached appearing Um, crm sil(m) with dss mag(w), drusy q(tr)
30754	1034	pgn relict Um, sil-serp(m/s), mag(m,dss&vnd), q-vnd(w)
30755	1035	pgn relict Um, sil-serp(m/s), mag(w/m,dss&vnd), q-vnd(w,local), fol(m,local), local breccia-like zones
30756	1037	pgn Um, sil-serp(m/s), mag(m to m/s,dss&vnd), fol(w/m,local), local breccia-like zones
30757	1037	crm carb ppt on adit roof
30758	1041	gn sil-serp(m) Um?
30759	1042	mixed float, dbn hornfels gwacke, relict mg Um-serp(m), msv serp, sil-serp altered Um and sil-mag altered frags
30760	1042	grab float, serp-vnd+-grey sil-pyrrh?(0.5%,local), serp(s)
30761	1042	msv serpentinite
30762	1042	serp(s), aphanitic opaline/jade texture, sil-serp(s), pent(0.5%), py-pyrrh-cpy?-dss(tr)
30763	1042	crm/grey perv-sil(s), mag(1%,dss-cg)
30764	1043	dgrey fg hornfels, serp-vnd(w,local)
30765	1044	fg q-sst
30766	1046	dbn mg hornfels with masv serp-patches/vns(w/m)
30767	1047	crm perv-calc-sil?(w/m), grey perv-sil(s), py?(tr-2%,local)
30768	1047	crm&bn msv chalcedony with drusy-q lined vugs(w), mag(w)
30769	1047	crm/grey perv-sil(s)-mag(m,dss)
30770	1048	silicified fault breccia, comprising zones sil-mag(m)& bn chalcedony-hm-vnd, mag(w)& bn chalcedony/sil(m/s),mag(w/m, dss&vnd)& bn sil-mag altered Um &
30771	1049	Fault breccia? - mg altered Um-texture, mag(m/s,dss&semi-perv), bn sil(s), lht bn drusy q lined vugs(w/m), local cherty clasts
30772	1050	float FeO(m/s), bn sil(m)&drusy q-vnd(m)
30773	1051	float gossanous relict mg Um, bn semi-perv sil(w/m), mag(m/s), FeO(m/s)
30774	1052	float altered Um, mag(m), sil(m), ferruginous float FeO(m)
30775	1052.1	float altered Um, mag(m), sil(m), ferruginous FeO(m)
30776	1053	bn sil(m/s), drusy q-vnd(w), mag(vw), local relict Um-texture, selvages serp?(m)
30777	1054	relict Um, bn sil(m/s), mag(m/s), numerous cavities/vugs locally
30778	1055	hackly breccia(fault)?-textured exterior, bn sil(s), drusy q-vnd(m)
30779	1056	irregular exterior(breccia?), fol(w), perv bn-sil(s), mag(w), relict Um&fg wacke? texture
30780	1057	scree, grey/crm sil(s)-mag(w,dss)
30781	1057	scree, ironstone with q-sst selvages
30782	1058	breccia?-hackly exterior, zones of FeO(m)& bn&grey sil-mag(m)
30783	1058	ferruginous breccia zone (clasts<10cm), fol(w), minor pug, pgn carb?-ppt,bn sil-vnd&semi-perv(m/s) with bright gn flecks(tr)& mag(s,dss&vnd)

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Sample No.	Field No.	Description
30784	1060	grey&gn slst, lam bdd local, vfg py(4%,dss), serp(tr), local serp-py-vnd(w)
30786	1062	dbn fg&mg hornfels gwacke, thin bdd, sil-serp-vnd(w)
30787	1063	pgn sil-serp(m), serp(m,local), fg gwacke/hornfels
30788	1064	pgn perv-sil-serp(m), with dgnserp-sil-vnd(w), fg wacke/slst?
30789	1065	fg&mg hornfels, sil-serp(m)
30790	1066	dgrey fg hornfels/slst, py-vnd(w,0.5%)
30785	1070	pgn siliceous fol(w/m) schist, trace mg-q-grains (in fault zone?)
30791	1070	pgn siliceous schist, zones perv crm/grey sil/q(m/s), mag(w,dss)
30792	1071	dgrey schist, fol(m/s), with lens hornfels/gwacke, sil-serp-pyrrh-vnd(w), pyrrh(tr-0.5%)
30794	1072	dgrey schist, fol(m/s), with lens hornfels/gwacke, sil-serp-pyrrh-vnd(w)
30793	1073	thin bdd slst&fg wacke, py(tr), sil-serp-semi-perv-vnd(w/m)
30795	1074	dbn gwacke/slst, lam bdd local, py(tr), perv-sil-serp-vnd(w)
30796	1075	dgrey/bn lam slst, pyrrh(1%, vfg dss), grey sil+-serp-pyrrh-vnd(w)
30797	1076	dgrey/bn fg hornfels&slst, pyrrh(tr), grey sil+-serp-pyrrh-vnd(w)
30798	1076	lam slst, serp-sil(w)-pyrrh(1%)-vnd
30799	1077	dbn hornfels, pyrrh-vns(0.5-1%)
30800	1078	lam bdd slst&hornfels, pyrrh(tr)
30801	1080	dgrey slst, py-vnd(0.5%)&serp plating joints
30802	1081	pitted calcareous? Sst?, local pgn sil(m/s), mostly wed FeO(w), siliceous
30803	1083	thin bdd grey sil(m) hornfels&chert, pyrrh(tr, fol planes), local crm-calc-sil?(m)with sil-serp(m)
30804	1087	thin bdd(1-18cm), lht bn/kaki siliceous sst&greyslst, local sil-serp(w), scree/float of grey fg q-sst& perv grey sil(m/s)
30805	1088	scree, dgrey fg hornfels
30806	1089	lht grey siliceous sst, highly disrupted bdd, joints(m/s), locally breccia-like?
30807	1097	common float grey perv sil, mag(w,dss)&bn hornfels & grey chert
30808	1099	grey, locally crm/pk sil(m/s)-dss cg mag(w)
30809	1100	pale bn/crm siliceous/sil(m) Um?, grey q-vnd(w), fine vuggy-etched texture
30810	1101	float grey&crm/lht bn sil-mag(w)
30811	1101	float highly wed Um, FeO(m)
30812	1101	float fine granule-breccia (cataclaysite), grey semi-perv sil(m/s), clasts of FeO(s)&bn hornfels, mag(m,dss &perv)pyrrh(tr,dss), bright gn mineral(tr)
30813	1102	sparse sub-rounded float variably hornfels wacke, pyrrh(0.5%)
30814	1106	q-sst, grey sil-mag(m) local with flecks serp(w/m)
30815	1108	very thin bdd chert/slst, wispy calc-sil?/sil-serp(w), pyrrh(0.5%,dss)
30816	1110	float, grey perv-sil(m/s) fg/mg q-sst with lht bn chalcedony vnd(m), also minor kaki slst&hornfels&breccia with slst clasts
30817	1110	float, FeO(m) relict serp, wed Um
30818	1111	float, ironstone, fol parallel hm-vnd, FeOs), mag(m)

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Sample No.	Field No.	Description
30819	1112	ironstone-mag(s) overprinting msv serp(m/s) after Um
30820	1113	gn mg Um?, bn sil-vnd(w/m), tour?, drusy q-vnd(m,local)
30821	1114	crm sil(s), tour(m, commonly euhedral), py?(tr)
30822	1118	grab sample crm sil(w/m), pgn serp vns(w) with cg/blebs py(6%) in lht bn siliceous sst with variable sil(w-m/s)
30823	1119	grab semi msv py(80%) with crm perv sil
30824	1119	sil(m/s), py(to 20% dss&vnd) in grey/gn siliceous fg sst?
30825	1120	pyel-gn wed sil(m), local sil(m/s)-py zones(10%)
30826	1121	crm sil-perv(s) zones-mag-py-vnd(w) with sil-serp(m) overprint, q-grains?, siliceous sed?
30827	1123	tight/box fold in lht bn sil(m) siliceous pgn sed
30828	1125	lht gn sil(m)-vnd, crm sil(m)-perv-pyrrh(<5%)-py(1%)
30829	1126	gn sil-serp(s), zones crm calc-sil(s, 30% overall), pyrrh(2%), py(tr-0.5%), local dbn hornfels-texture
30830	1126	gn&crm serp(m), pyrrh(1%), crm calc-sil-vnd(w/m), hornfels/chert
30831	1127	lam bdd crm&grey chert, pyrrh(tr-2%), microfaults, zones of sil-serp(m/s),calc-sil(m), pyrhh(1-4%), clast-like texture(fine fault mill breccia?)
30832	1128	lam chert, pyrrh(1%,local), crm sil-vnd(w), perv-sil/hornfels(s)
30833	1129	relict thin bdd chert, local sil-serp(s), pyrrh(<2%), local msv serp with wispy calc-sil(w)
30834	1129	crm siliceous sst(Oonah Formn) overlying a thrust fault contact with Cambrian chert
30835	1131	Fault breccia(~3m wide), angular/sub angular clasts mostly 0.5-2cm comprise gn&crm sil+-py?(tr-4%)&gn serp-sil-pyrrh(2%)
30836	1131	crm/pgn chert, sil;-serp-vnd(w), py(0.5%, cg dss)
30837	1141	fol(m) slst, nearby subcrop sil fg siliceous sst& slst-clast breccia(sampled)
30838	1142	siliceous slst, lam bdd local, sil(m), local pgn sil-serp(w)
30839	1143	grey/gn sil-serp(s), serp-vnd(w), pyrrh(1%), mag(w)
30840	1144	alluvium gn ser-sil(s), mag(w),pyrrh(5%,dss), crm calc-sil(w)[sampled] & mixed siliceous slst&sst & bn hornfels gwacke sil-serp-vnd(w)-pyrrh(tr)&bn chert
30841	1145	dbn hornfels, pyrrh(tr-2%), sil-serp(w)
30842	1145	silica&siliceous-clast breccia(Fault), clasts mostly<2cm (max 10cm)
30843	1146	fol(w) bn hornfels, sil-py lens(tr-1%)
30844	1148	bn chert/fg hornfels, pyrrh(3%, dss)
30845	1149	gn sil-serp(s), pyrrh(2%), mag(w), locally fg dss pyrrh(10%) in chert
30846	1150	sil-serp(s), pyrrh blebs(4%) in bdd chert&hornfels
30847	1151	grey siliceous sil(m/s), py(2%) Oonah sed? In thrust fault? contact with Cambrian hornfels
30848	1151	grey chert&bn hornfels, variable pyrrh, zone serp(s)-pyrrh(4%) at thrust contact?

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis

Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30054	748	347980	5356540	Pou?	comp	outcrop	1810	4	12	374	-50
30055	749	348000	5356525	Pou/Tbr	comp	outcrop	1495	5	16	378	-50
30056	750	348010	5356505	Etsl?/Tbr?	comp	outcrop	212	19	86	141	-50
30057	751	348025	5356500	Ets/Tbr?	comp	outcrop	266	37	36	185	-50
30058	752	348060	5356490	Ets/Tbr?	comp	outcrop	178	20	17	201	-50
30059	753	348085	5356485	Ets/Tbr?	comp	outcrop	301	373	17	297	-50
30061	754	348110	5356450	Ets/Esm?	comp	outcrop	248	48	16	521	-50
30060	755	348105	5356485	Esm?	grab	outcrop	153	58	38	503	-50
30062	756	348116	5356485	Tbr?	comp	outcrop	171	94	53	93	-50
30063	757	348135	5356475	Tbr?	comp	outcrop	34	24	22	68	-50
30064	758	348155	5356487	Ets	comp	outcrop	70	73	71	77	-50
30065	759	348170	5356490	Ets	comp	outcrop	45	36	32	72	-50
30066	761	348245	5356465	Ets	comp	outcrop	207	10	6	77	-50
30067	762	348295	5356470	Ets/Tbr?	comp	outcrop	301	10	23	479	-50
30068	763	348335	5356415	Tbr	comp	outcrop	1330	-2	18	129	-50
30069	764	348375	5356385	Esm?	comp	outcrop	1840	-2	24	205	-50
30070	765	348450	5356365	Esm?	comp	outcrop	1660	-2	14	193	-50
30071	766	348500	5356325	Esd	comp	outcrop	2080	4	32	216	-50
30072	767	348510	5356280	Esus	comp	outcrop	2180	2	10	177	-50
30073	768	348530	5356080	Esd	comp	outcrop	2290	3	3	21	-50
30074	769	348540	5356030	Esd	comp	outcrop	2430	2	-3	15	-50
30075	770	348580	5356015	Esc	comp	outcrop	2150	3	-3	35	-50
30076	771	348630	5355998	Esd	comp	outcrop	1735	-2	-3	14	-50
30077	772	348710	5355960	Esc	comp	outcrop	2010	-2	13	77	-50
30078	773	348795	5355900	Esd	comp	outcrop	1940	2	17	147	-50
30079	774	348835	5355875	Esus	comp	outcrop	2090	2	6	109	-50
30081	775	348815	5355855	Esd	comp	outcrop	1645	2	11	109	-50
30080	776	348865	5355865	Esd	comp	outcrop	3270	26	7	68	-50
30082	777	348910	5355830	Esus	comp	outcrop	2030	3	-3	123	-50
30083	778	348935	5355790	Esd	comp	outcrop	1760	4	7	110	-50
30084	779	348920	5355710	Esd	comp	outcrop	2660	13	14	115	-50
30085	779	348920	5355725	Esd	grab	outcrop	3390	10	8	109	-50
30086	779	348930	5355715	mag	grab	outcrop	5900	333	-3	225	1770
30087	780	352050	5355620	Sc/Sqf	comp	float	29	8	50	64	-50
30088	781	352000	5355710	Sc/Tbr?	comp	outcrop	41	3	64	88	55

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30089	782	351980	5355710	Tbr/Sc?	comp	outcrop	33	4	78	73	-50
30090	782	351980	5355710	Etfg	comp	outcrop	157	13	14	87	-50
30091	783	351950	5355725	Etfg	grab	outcrop	139	54	14	91	-50
30092	784	351930	5355740	Etfg	comp	outcrop	154	34	6	81	-50
30093	785	351905	5355750	Etfg	grab	outcrop	153	33	8	62	-50
30094	786	351890	5355752	Etsl	comp	outcrop	139	42	4	92	-50
30095	787	351870	5355760	Etfg	comp	outcrop	154	42	6	61	-50
30096	788	351855	5355760	Etfg	comp	outcrop	141	40	9	66	-50
30097	789	351795	5355750	Etfg	comp	outcrop	123	58	3	50	-50
30098	790	350850	5355390	Tbr	comp	outcrop	893	30	247	607	85
30099	792	350820	5355295	Cbag	grab	float	104	-2	11	68	-50
30100	793	350845	5355273	Cbag?	comp	subcrop	156	2	11	75	-50
30451	794	350870	5355275	Esm	comp	float	239	7	8	95	-50
30452	795	350883	5355275	Tbr?	comp	float	3520	19	103	535	95
30453	796	350890	5355265	Tbr?	comp	float/outcrop	1815	9	171	534	95
30454	797	350896	5355255	Tbr?	comp	outcrop/subcrop	1220	5	76	280	60
30455	797	350896	5355255	Esm	grab	float	6100	26	68	1065	-50
30456	798	350905	5355245	Esm	comp	float	7500	8	37	2200	-50
30457	799	350925	5355245	Esm	grab	outcrop	3580	3	22	610	-50
30458	800	350943	5355250	Esm	grab	float	6200	22	16	792	-50
30459	801	350942	5355265	Tbr	comp	float	4970	20	26	1550	90
30460	802	350975	5355250	Esm	comp	float	11000	12	34	6600	85
30461	803	351015	5355245	Esm	comp	subcrop	10000	10	90	1860	75
30462	803	351015	5355245	Tbr?	comp	float	1545	12	26	638	80
30463	804	351080	5355250	Sc	comp	float	173	8	11	47	-50
30464	805	351125	5355250	Sc	comp	float	10	4	3	14	-50
30465	806	351175	5355240	Sa	comp	float	15	20	210	213	-50
30466	807	351230	5355215	Sa	comp	float	14	5	122	61	-50
30467	809	351256	5355255	Sc	comp	subcrop	14	9	12	19	-50
30468	809	351256	5355265	Sc	grab	outcrop	7	3	16	21	-50
30469	811	351180	5355375	Sc	comp	float	13	5	13	34	-50
30470	812	350635	5355135	Sc/Sa	comp	outcrop	9	2	11	12	-50
30471	813	350625	5355165	Sa?	comp	outcrop	7	5	56	42	-50
30472	813	350625	5355165	Ets/Sa?	comp	outcrop	17	54	66	50	-50
30473	817	351070	5354785	Scc	comp	float	5	9	13	15	-50

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis

Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30474	818	351120	5354945	Esm	comp	float	64	4	14	39	-50
30475	819	351145	5354960	Esm	comp	float	40	3	5	38	-50
30476	820	351160	5354970	Esm	comp	float	96	2	10	40	-50
30477	821	351270	5354980	Esm	comp	float	95	5	16	66	-50
30478	822	351300	5355000	Su?	comp	float	56	2	53	48	-50
30479	823	351320	5355015	Su?	grab	float	804	20	72	159	-50
30480	824	351350	5355050	Sc	comp	float	14	3	9	15	-50
30481	825	351365	5355175	Sc	comp	float	4	9	10	11	-50
30482	827	351240	5355195	Sc	comp	float	27	14	50	95	-50
30483	828	351138	5355130	Sc	comp	float	34	7	49	23	-50
30484	829	350958	5355020	Sa	comp	float	10	95	14	31	-50
30485	830	351405	5354945	Sc	comp	float	-3	4	-3	-2	-50
30486	830	351405	5354945	Sc	grab	float	12	5	-3	9	-50
30487	832	351435	5355013	Sc	comp	float	13	6	-3	19	-50
30488	833	351478	5354988	Ebag	comp	float	239	139	13	235	-50
30489	834	351497	5354990	Esm	comp	float	182	101	10	194	-50
30490	835	351515	5355003	schist	comp	float	39	66	29	67	-50
30491	836	351542	5355012	Su	comp	float	5	7	56	7	-50
30492	839	351700	5354890	Tbr?	comp	subcrop	-3	6	-3	5	-50
30493	840	351690	5354855	Su	comp	float	-3	3	-3	5	-50
30494	840	351690	5354855	Esm	grab	float	-3	9	-3	8	-50
30495	841	351678	5354820	Sa	comp	float	3	8	-3	6	-50
30496	843	351670	5354720	Ebag	comp	float	118	63	41	112	-50
30497	844	351660	5354703	Ets	comp	float	53	53	51	116	-50
30498	845	351655	5354690	Sc	comp	float	130	43	15	134	-50
30401	847	348985	5355695	Esd	comp	outcrop	1935	26	8	92	-50
30402	848	349045	5355583	Etc	comp	outcrop	36	7	23	54	-50
30403	848	349045	5355583	Etsl	comp	outcrop	84	56	8	92	65
30404	849	349025	5355575	Etfg/sl	comp	outcrop	72	80	-3	83	70
30405	849	349025	5355575	Etc	grab	outcrop	49	8	-3	20	-50
30406	850	349065	5355493	Ets	comp	outcrop	72	58	3	81	70
30407	851	349080	5355484	Tbr	comp	outcrop	4	3	32	142	-50
30408	851	349070	5355465	Tbr?/Su	comp	outcrop	12	10	42	49	-50
30409	852	349120	5355423	Tbr	comp	outcrop	76	54	10	46	-50
30410	853	349055	5355400	Ssc	comp	outcrop	82	67	9	62	60

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30411	854	349125	5355361	Ssc	comp	outcrop	27	14	17	51	-50
30412	855	349100	5355323	Ssc	comp	outcrop	33	12	24	45	-50
30413	856	349085	5355300	Ssc	comp	outcrop	23	16	50	83	-50
30414	857	349095	5355278	Ssc	grab	outcrop	21	33	32	50	-50
30415	859	349080	5355236	Sc	comp	outcrop	22	15	11	23	-50
30416	862	349344	5355120	Ssc	grab	outcrop	40	38	39	52	75
30417	863	349445	5355055	Sqf	grab	outcrop	5	4	18	11	-50
30418	864	349575	5354970	Ssc	comp	outcrop	49	36	28	54	-50
30419	865	349730	5354750	Ssc	comp	outcrop	30	27	163	281	-50
30420	866	350040	5354500	Ssc	comp	outcrop	37	20	24	22	-50
30499	871	351670	5355357	Sc	grab	outcrop	10	5	3	9	-50
30500	875	351721	5354760	Ets	comp	outcrop	3	46	541	19	-50
30421	876	351695	5354735	Ets	comp	outcrop	102	67	109	142	-50
30422	877	351730	5354730	Etsh	comp	outcrop	229	65	121	332	-50
30423	878	351755	5354725	Etsh	comp	outcrop	198	79	77	317	-50
30424	880	351830	5354715	Etsh	comp	outcrop	173	76	23	255	-50
30425	882	351930	5354740	Etsh	grab	outcrop	24	44	13	75	-50
30426	883	351945	5354760	Etsh	comp	outcrop	107	114	27	397	-50
30427	884	351970	5354790	Etsh	comp	outcrop	25	63	31	74	-50
30428	885	351855	5354670	Etlg	comp	float	78	70	19	85	-50
30429	887	351840	5354590	Su?	grab	float	6	17	13	14	-50
30430	888	351825	5354580	Scc	grab	subcrop	19	18	31	35	-50
30431	890	351722	5354685	Etmg	comp	float	89	47	13	84	-50
30432	891	351605	5354772	Ets	grab	float	23	24	50	23	-50
30433	892	351555	5354820	Etsl	comp	float	65	53	45	117	-50
30434	893	351510	5354890	Esm	comp	float	187	55	3	180	-50
30435	894	348565	5356474	Tbr?	grab	float	54	29	19	38	-50
30436	895	348576	5356473	Tbr?	grab	float	186	118	28	89	-50
30437	896	348611	5356470	Tbr?	grab	float	1305	2	39	211	-50
30438	897	348650	5356465	Tbr	comp	outcrop	2440	5	16	165	-50
30439	898	348680	5356460	Tbr	comp	outcrop	2330	4	23	315	-50
30440	899	348730	5356470	Esm	comp	outcrop	1690	5	18	276	-50
30441	900	348750	5356485	Esm	comp	outcrop	1950	2	18	267	-50
30442	901	348780	5356495	Esm	comp	outcrop	4430	3	18	753	-50
30443	902	348850	5356500	Esm	grab	outcrop	1645	3	15	172	-50

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis

Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30444	903	348882	5356503	Tbr	comp	outcrop	4840	7	36	612	-50
30445	904	348922	5356508	Tbr	comp	outcrop	332	13	5	89	-50
30446	905	348965	5356507	Tbr?	comp	outcrop	378	83	43	587	-50
30447	906	349000	5356500	Tbr?	comp	outcrop	172	11	39	157	-50
30448	907	349041	5356487	Etlg?	grab	outcrop	140	10	26	103	-50
30449	908	349100	5356487	Ets?	grab	outcrop	1060	13	31	354	-50
30450	909	349135	5356487	Tbr?	comp	outcrop	1870	20	10	187	-50
30901	910	349160	5356487	Ets/Tbr?	comp	outcrop	953	2	41	111	-50
30902	911	349195	5356490	Ets/Tbr?	comp	outcrop	749	-2	112	206	-50
30903	912	349260	5356500	Pou/Tbr?	comp	outcrop	824	2	189	307	-50
30904	914	349350	5356515	Ets	comp	outcrop	145	2	17	228	-50
30905	915	349360	5356540	Pou	comp	outcrop	175	15	28	131	-50
30906	916	349405	5356320	Esm/Su?	comp	outcrop	347	7	13	107	-50
30907	917	349295	5356345	Esm	comp	outcrop	2280	2	11	235	-50
30908	918	349240	5356335	Esm	comp	outcrop	2170	-2	3	155	-50
30909	919	349245	5356385	Esm	comp	outcrop	2990	-2	12	215	-50
30910	920	349245	5356405	Esm	comp	outcrop	2330	3	10	159	-50
30911	921	349260	5356425	Esm	comp	outcrop	1585	3	10	274	-50
30912	922	349295	5356430	Esm	comp	outcrop	2110	4	17	160	-50
30913	923	349335	5356431	Esm	comp	outcrop	1920	3	12	172	-50
30914	924	349355	5356445	Esm	comp	outcrop	2340	3	4	188	-50
30915	925	349363	5356450	Tbr	comp	outcrop	1505	4	103	260	-50
30916	926	349370	5356460	Tbr?	comp	outcrop	1690	4	166	88	-50
30917	927	349375	5356485	Tbr?	comp	outcrop	669	3	850	534	-50
30918	928	349395	5356505	Tbr?	grab	outcrop	1575	4	18	59	-50
30919	929	349405	5356509	Tbr?	grab	outcrop	655	3	11	43	-50
30920	930	349440	5356514	Tbr?	grab	outcrop	373	3	56	61	-50
30921	931	349465	5356523	Tbr?	comp	outcrop	1095	5	5	177	-50
30922	932	349486	5356536	Esm/Tbr?	grab	float	43	22	5	19	-50
30923	932	349491	5356536	Ets?	grab	float	59	10	23	37	-50
30924	933	349497	5356550	Ets?	comp	outcrop	232	14	14	108	-50
30925	934	349525	5356558	Pou/Dsp	comp	outcrop	308	103	35	24	-50
30926	935	349560	5356550	Pou?/Dsp	comp	outcrop	44	55	11	10	-50
30927	936	349561	5356405	Ets/Esm?	grab	float	31	29	8	50	-50
30928	938	349430	5356310	Sc?	grab	float	16	6	4	241	-50

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30929	940	349480	5356262	Esm	comp	float	3210	6	22	215	-50
30930	941	349500	5356220	Esm	grab	float	1780	4	7	95	-50
30931	943	349625	5356325	Ets	comp	float	148	10	-3	67	-50
30932	944	349700	5356376	Ets	comp	float	129	7	8	28	95
30933	945	349712	5356390	Tbr	comp	float	155	95	11	87	-50
30934	946	349721	5356400	Tbr?	comp	float	53	6	26	29	-50
30935	947	349750	5356415	Tbr	comp	float	19	7	19	21	-50
30936	948	349770	5356430	Tbr	comp	float	49	19	19	24	-50
30937	949	349770	5356430	Esm	grab	float	17	25	30	42	-50
30938	950	349830	5356470	Pou	comp	outcrop	15	8	25	14	-50
30939	953	350090	5356453	Pou	comp	outcrop	12	11	6	15	-50
30940	954	350100	5356440	Tbr?	comp	float	14	31	28	13	-50
30941	955	350095	5356425	Tbr?	comp	float	60	34	5	25	-50
30942	956	350095	5356405	Tbr	comp	float	33	27	4	27	-50
30943	957	350097	5356385	Um?	grab	float	53	74	12	28	-50
30944	958	350100	5356370	Um	comp	outcrop	62	63	8	31	-50
30945	959	350100	5356360	Ebag	comp	subcrop	35	27	25	38	-50
30946	960	350098	5356346	Ebag?	grab	float	88	69	14	32	-50
30947	962	350095	5356287	Tbr?	comp	float	120	89	12	19	-50
30948	963	350090	5356270	Tbr?	comp	float	168	133	16	22	-50
30949	964	350075	5356250	Ets	comp	float	83	13	8	33	-50
30950	965	350063	5356235	Ebag	comp	float	20	13	34	52	-50
30951	967	350054	5356220	Ets	comp	subcrop	108	52	62	69	-50
30952	967	350054	5356220	Dqm	grab	float	195	47	11	39	-50
30953	968	350035	5356185	Dqm/Tbr?	comp	float	89	39	18	47	-50
30954	975	349695	5355680	Ets?	comp	outcrop	84	91	16	29	-50
30955	977	349900	5355595	Sa	comp	subcrop	35	78	12	80	-50
30956	978	349946	5355587	Sa	comp	outcrop	37	48	24	26	-50
30957	979	350110	5355570	Dqm/Tbr	comp	outcrop	31	17	3	105	-50
30958	980	350090	5355670	Dqm/Tbr/Um	comp	outcrop	842	14	7	22	-50
30959	980	350080	5355680	Um?	grab	outcrop	836	7	33	39	-50
30960	980	350055	5355685	Um	grab	outcrop	646	11	61	548	-50
30961	980	350015	5355700	Tbr/Um	comp	outcrop	1075	13	5	120	-50
30962	981	350240	5355722	Tbr	comp	outcrop	3830	14	7	157	-50
30963	993	350245	5355840	Tbr	comp	float	400	50	6	90	-50

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30964	994	350220	5355870	Dm	comp	float	533	25	-3	114	-50
30965	995	350220	5355915	Dm	comp	outcrop	1745	16	23	181	-50
30966	996	350260	5356025	Dqm/Tbr?	comp	float	478	23	27	86	-50
30967	997	350310	5356070	Esm	comp	outcrop	2080	7	10	324	-50
30968	998	350315	5356086	Esm	comp	outcrop	1155	7	33	229	-50
30969	999	350325	5356110	Esm	comp	outcrop	264	27	80	147	-50
30970	1000	350340	5356130	Esm?	comp	outcrop	521	12	29	123	-50
30971	1001	350350	5356155	Esm	comp	outcrop	1960	25	401	452	-50
30972	1002	350355	5356165	Esm/Ets	comp	outcrop	194	140	37	72	-50
30973	1002	350355	5356165	Ets	grab	outcrop	313	142	20	42	-50
30974	1003	350360	5356185	Ets	comp	outcrop	147	62	19	56	-50
30975	1006	350380	5356300	Ets	comp	outcrop	48	12	30	29	-50
30976	1007	350380	5356340	Ets	grab	outcrop	37	36	15	20	-50
30977	1008	350380	5356360	Esm?	grab	outcrop	14	6	11	20	-50
30978	1008	350380	5356360	Ets	comp	float	52	10	13	31	-50
30979	1009	350380	5356390	Ebag	grab	float	82	19	6	17	-50
30980	1010	350380	5356410	Esm	comp	float	82	36	-3	17	-50
30981	1011	350380	5356470	Pou	comp	outcrop	10	6	20	7	-50
30982	1012	349288	5355860	Esm	comp	outcrop	4470	9	20	69	-50
30983	1013	349275	5355870	Esm	comp	outcrop	3600	3	19	61	-50
30984	1014	349280	5355892	Esm	comp	outcrop	3610	3	15	92	-50
30985	1015	349277	5355922	Esm	comp	outcrop	3400	4	15	84	-50
30986	1016	349270	5355980	Esm	comp	outcrop	4770	4	14	88	-50
30987	1017	349270	5356000	Esm	grab	outcrop	2340	3	9	42	-50
30988	1018	349270	5356025	Dm?	comp	outcrop	869	7	7	123	-50
30989	1019	349265	5356055	Qhr/Dm?	comp	subcrop	1050	8	8	106	-50
30990	1020	349260	5356080	Esm	comp	outcrop	2010	4	-3	20	-50
30991	1021	349261	5356100	Esm	grab	outcrop	3030	4	-3	27	-50
30992	1022	349264	5356120	Esm	comp	outcrop	6900	4	12	136	-50
30993	1023	349273	5356155	Esm	comp	outcrop	3410	4	16	151	-50
30994	1024	349280	5356180	Qhr	comp	outcrop	158	8	11	105	-50
30995	1025	349240	5356230	Esm	comp	outcrop	4010	5	13	67	-50
30996	1026	349200	5356210	Esm	comp	outcrop	2090	3	11	132	-50
30997	1027	349137	5356225	Esm	comp	outcrop	1825	7	70	918	-50
30998	1028	348488	5356215	Esm	comp	outcrop	1555	5	9	268	-50

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis											
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30999	1030	349035	5356215	Esm	comp	outcrop	1585	5	9	235	-50
31000	1031	349100	5356240	Esm	comp	outcrop	741	5	-3	92	-50
30751	1032	349095	5356265	Esm	comp	outcrop	1795	-2	12	201	-50
30752	1033	349080	5356290	Esm	comp	outcrop	2030	4	14	200	-50
30753	1034	349045	5356280	Esm	comp	float	517	4	15	94	-50
30754	1034	349045	5356280	Esm	comp	float	1440	3	19	155	-50
30755	1035	349055	5356315	Esm	comp	outcrop	1300	2	17	126	-50
30756	1037	349003	5356105	Esm	comp	outcrop	2460	3	27	251	-50
30757	1037	349015	5356100	Esm	grab	outcrop	145	12	20	27	-50
30758	1041	350618	5355230	Esm?	grab	float	203	17	36	62	80
30759	1042	350615	5355240	Tbr?	comp	float	327	31	32	118	-50
30760	1042	350615	5355240	Esm?	grab	float	3910	245	29	74	150
30761	1042	350615	5355240	Esm	grab	float	372	92	59	216	-50
30762	1042	350615	5355240	Esm?	grab	float	3690	92	24	86	250
30763	1042	350615	5355240	Dqm	grab	float	22	17	22	37	-50
30764	1043	350540	5355205	Ets	grab	float	112	4	28	110	-50
30765	1044	350610	5355155	Su	grab	float	15	5	11	14	-50
30766	1046	350615	5355185	Ets	grab	float	202	7	49	94	-50
30767	1047	350635	5355250	Dqm?	grab	float	920	12	22	128	-50
30768	1047	350635	5355250	Dqm?	grab	float	104	8	20	61	-50
30769	1047	350635	5355250	Dqm	grab	float	125	14	66	77	-50
30770	1048	350625	5355270	Dqm/Tbr	comp	float	498	13	32	115	-50
30771	1049	350600	5355260	Tbr?	comp	outcrop	1755	40	89	419	100
30772	1050	350570	5355342	Dqm?	grab	float	1195	8	40	215	-50
30773	1051	350574	5355355	Esm	grab	float	1635	29	55	306	-50
30774	1052	350577	5355365	Esm	comp	float	1400	17	43	281	-50
30775	1052.1	350577	5355380	Esm	grab	float	972	27	57	166	-50
30776	1053	350587	5355402	Esm?	comp	outcrop	1150	38	66	211	-50
30777	1054	350590	5355420	Esm	comp	subcrop	1120	13	65	195	-50
30778	1055	350600	5355445	Tbr/Dqm	comp	outcrop	1295	12	99	419	-50
30779	1056	350600	5355476	Tbr/Dqm	comp	outcrop	3110	5	8	345	-50
30780	1057	350625	5355480	Dqm	grab	float	149	10	8	105	-50
30781	1057	350625	5355480	Dm?	grab	float	1385	92	174	949	135
30782	1058	350770	5355450	Tbr	comp	subcrop	1375	29	143	987	75
30783	1058	350775	5355450	Tbr	comp	outcrop	3360	61	2040	2850	120

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis

Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30784	1060	350813	5355570	Etsl	comp	outcrop	90	61	36	218	-50
30786	1062	350925	5355470	Etfg	comp	outcrop	41	9	10	58	80
30787	1063	350955	5355475	Ets	comp	float	51	191	152	206	-50
30788	1064	351000	5355495	Ets	grab	float	18	19	211	65	-50
30789	1065	351030	5355515	Ets	comp	float	49	30	27	94	-50
30790	1066	351090	5355500	Ets	comp	outcrop	73	30	180	189	-50
30785	1070	351665	5355416	Su?/Ets	grab	outcrop	43	15	113	98	-50
30791	1070	351665	5355416	Su?/Ets	grab	outcrop	26	34	1070	79	-50
30792	1071	351655	5355560	Ets/Su?	comp	outcrop	80	57	109	124	-50
30794	1072	351655	5355562	Ets/Su?	comp	outcrop	72	24	186	155	-50
30793	1073	351655	5355585	Ets?	comp	outcrop	64	44	55	156	-50
30795	1074	351670	5355640	Ets	comp	outcrop	64	51	800	225	-50
30796	1075	351540	5355690	Ets	grab	float	72	82	8	98	-50
30797	1076	351510	5355700	Ets	comp	float	59	49	5	105	-50
30798	1076	351510	5355700	Etsl	grab	float	70	79	-3	89	-50
30799	1077	351345	5355820	Ets	comp	outcrop	56	47	11	84	-50
30800	1078	351360	5355855	Ets	comp	outcrop	55	26	-3	86	-50
30801	1080	351455	5355720	Etsl	comp	outcrop	66	39	-3	101	-50
30802	1081	349245	5355290	Ssc?	comp	outcrop	28	18	81	140	-50
30803	1083	349220	5355390	Ssc	comp	outcrop	34	18	25	32	-50
30804	1087	349440	5355345	Sc?	comp	outcrop	24	6	18	35	-50
30805	1088	349510	5355380	Ets	comp	float	15	6	16	36	-50
30806	1089	349535	5355435	Tbr/Sa?	comp	float	28	78	25	97	-50
30807	1097	350270	5355435	Tbr	comp	float	29	19	156	48	-50
30808	1099	350335	5355450	Dqm	comp	float	17	6	7	45	-50
30809	1100	350450	5355415	Dqm/Um?	comp	float	49	5	5	35	-50
30810	1101	350420	5355365	Dqm	comp	float	16	7	3	108	-50
30811	1101	350420	5355365	Esm	comp	float	237	202	83	157	320
30812	1101	350413	5355345	Tbr	grab	float	710	296	66	143	110
30813	1102	350215	5355355	Ets	comp	float	78	58	35	69	-50
30814	1106	349970	5354935	Sc	grab	outcrop	15	6	14	13	-50
30815	1108	349455	5355290	Sa	comp	outcrop	18	14	12	36	-50
30816	1110	349800	5355760	Su?/Tbr?	comp	float	101	19	14	92	-50
30817	1110	349800	5355760	Esm/Tbr?	grab	float	32	39	25	21	-50
30818	1111	349845	5355720	Dm	comp	float	1460	643	133	728	225

Trial Harbour Sample Catalogue (cont.) - Rock Chip Analysis

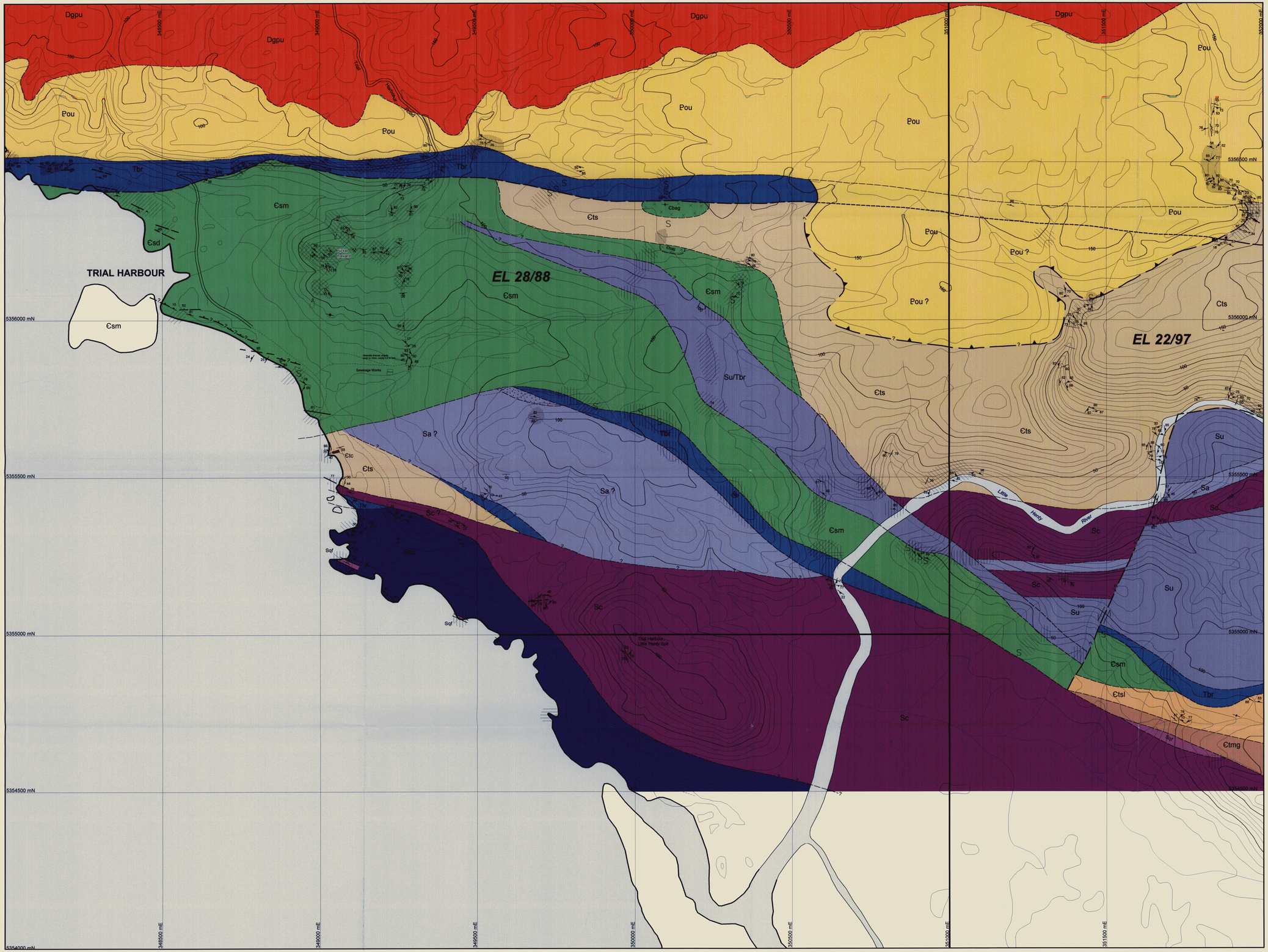
Sample No.	Field No.	East (AMG)	North (AMG)	Rock Code	Sample Type	Sample Medium	Ni_ppm	Cu_ppm	Pb_ppm	Zn_ppm	As_ppm
30819	1112	349875	5355725	Dm/Esm	grab	float	903	131	31	159	90
30820	1113	352350	5357000	Esm?	grab	float	61	38	88	40	110
30821	1114	352120	5356920	Dqt	grab	float	23	33	10	32	-50
30822	1118	351840	5356540	Pou	grab	outcrop	173	135	6	67	-50
30823	1119	351825	5356500	Dsp	grab	outcrop	122	53	13	83	75
30824	1119	351825	5356500	Pou	comp	outcrop	108	48	6	75	70
30825	1120	351835	5356445	Pou	comp	outcrop	41	40	22	140	-50
30826	1121	351850	5356430	Pou	comp	outcrop	24	27	232	262	-50
30827	1123	351885	5356415	Pou	comp	outcrop	15	15	8	35	-50
30828	1125	351940	5356390	Pou?	comp	outcrop	149	44	11	52	-50
30829	1126	351955	5356360	Ets/Tbr?	grab	outcrop	177	23	11	30	-50
30830	1126	351955	5356360	Ets/Tbr?	comp	outcrop	130	47	16	23	85
30831	1127	351960	5356330	Ets/Tbr?	comp	outcrop	137	30	18	26	-50
30832	1128	351955	5356315	Ets	comp	outcrop	32	9	13	22	-50
30833	1129	351940	5356295	Ets	comp	outcrop	30	30	15	28	-50
30834	1129	351940	5356295	Pou	comp	outcrop	16	12	20	18	-50
30835	1131	351860	5356250	Tbr	comp	outcrop	454	110	9	25	-50
30836	1131	351860	5356250	Ets	grab	outcrop	38	58	19	45	-50
30837	1141	351190	5356365	Pou	grab	outcrop/subcrop	8	-2	8	6	-50
30838	1142	351295	5356290	Pou	comp	float	7	2	9	9	-50
30839	1143	351310	5356260	Pou?	comp	float	30	25	14	14	-50
30840	1144	351315	5356110	Ets&Pou	grab	float	166	104	24	27	-50
30841	1145	351330	5356120	Ets	comp	float	75	56	10	79	-50
30842	1145	351330	5356120	Tbr	grab	float	9	2	6	7	-50
30843	1146	351380	5356075	Ets	grab	outcrop	90	119	28	183	-50
30844	1148	351365	5355987	Ets	grab	float	81	84	7	75	-50
30845	1149	351395	5355990	Ets	comp	outcrop	62	71	15	48	-50
30846	1150	351440	5356044	Ets	grab	outcrop	49	79	33	55	-50
30847	1151	351450	5356060	Pou?	comp	outcrop	34	20	13	25	-50
30848	1151	351450	5356060	Ets	comp	outcrop	134	71	23	74	-50

Appendix 3: Rock Code Key

Rock Code Key		
Code	**Lithology**	**Age/Type**
Qha	Alluvial gravels	Quaternary
Qhh	Lacustrine clays and sands, localy including re-sedimented ironstone. (Henty Surface related?)	Quaternary
Qhr	Raised beach deposits	Quaternary
Sa	greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone	Silurian
Sc	grey/cream fine to medium grained quartz-sandstone, lithic-quartz-sandstone and minor conglomerate.	Silurian
	Crinoid trace fossils locally.	
Scc	pebble-cobble conglomerate with quartz-sandstone, grey siliceous and minor vein quartz clasts,	Silurian
	commonly moderatelly lithified.	
Sqf	quartzo-feldspathic (10 to 20%) sandstone, medium grained, locally lithic-bearing (stippled)	Silurian
Ssc	calcareous thin bedded siltstone (Silurian?)	Silurian
Su	Undiferentiated sediments	Silurian
Og	Limestone (correlate of Gordon Limestone)	Ordovician
Oc	Pebble conglomerate, minor lithic-quartz sandstone	Ordovician
Os	Cream to light brown siliceous sandstone and siltstone	Ordovician
Ctsl	Siltstone with minor chert, shale and greywacke interbeds	Cambrian
Ctfg	Fine grained greywacke/hornfels with minor siltstone	Cambrian
Ctmg	Medium grained greywacke/hornfels with minor siltstone	Cambrian
Ctcg	Coarse grained greywacke/hornfels	Cambrian
Ctlg	Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz	Cambrian
Ctc	Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.	Cambrian
Cts	Undifferentiated Cambrian Sediments, mostly greywacke and siltstone with minor lithic-wacke and conglomerate	Cambrian
Csx	undifferentiated serpentinised gabbro and/or basalt	Cambrian
Cbau	undifferentiated gabbro	Cambrian
Cba	undifferentiated basalt	Cambrian
Cbab	Massive to pillowed, aphyric basalt flows with interbedded breccia flows	Cambrian
Cbbz	Porphyritic (psuedomorphed clinoenstatite and/or orthopyroxene, chromite) basalt,	Cambrian
	commonly with interbedded pillow and breccia flows	
Cbagf	fine grained gabbro	Cambrian
Cbagm	medium grained gabbro	Cambrian
Cbagv	coarse grained gabbro	Cambrian
Csm	Undiferentiated Ultramafic (+/-mafic) and massive serpentinite	Cambrian
Cbag	Mafic gabbro, equigranular medium to coarse grained	Cambrian
Cbag	Mafic gabbro, spinifex textured	Cambrian

660175

Rock Code Key (Cont.)		
Code	**Lithology**	**Age/Type**
Csf	Highly feldspathic, medium/coarse grained gabbro?.	Cambrian
Csd	serpentinised equigranular ultramafic/dunite?	Cambrian
Csc	psuedo-conglomeratic textured ultramafic	Cambrian
Csus	spinifex textured ultramafic/dunite?	Cambrian
Pos	shale (black)	Precambrian
Posl	laminated slst and shale	Precambrian
Poss	sandstone	Precambrian
Posq	quartz sandstone	Precambrian
Pou	undifferentiated sediments	Precambrian
Dglf	white granite/leucogranite	Devonian
Dgpu	red granite	Devonian
Dgpf	red granite-porphyritic	Devonian
Dgq	quartz-rich granitiod (greisen?)	Devonian
Dma	Aplite (/leucogranite)	Devonian
Tbr	Major Fault Zone -Highly faulted and deformed rocks with zones of cataclaysite/fault breccia and tectonic	?
	melange, comprising highly altered blocks and large clasts of variable lithologies	
	(including Pou, Cts, Csm and Su, major lithology noted).	
Dcs	cream coloured calc-silicate veining and pervasive alteration	Alteration / Mineralisation
Dm	magnetite, veined and disseminated	Alteration / Mineralisation
Ds	veined(>=m) and/or pervasive serpentinisation	Alteration / Mineralisation
Dss	Pervasive silica-serpentinitne alteration, +/-disseminated magnetite	Alteration / Mineralisation
Dq	pervasive silicification	Alteration / Mineralisation
Dqm	Pervasive silica with minor disseminated magnetite	Alteration / Mineralisation
Dt	tourmaline veins	Alteration / Mineralisation



LEGEND

QUATERNARY

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

SILURIAN

- Ss — Greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone.
- Sc — Grey/cream fine to medium grained quartz sandstone, lithic quartz-sandstone & minor conglomerate. Crinoid trace fossils locally.
- Scc — 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 (stippled).
- Calcareous thin bedded siltstone (Silurian?)
- Su — Undifferentiated sediments.

ORDOVICIAN

- Og — 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)

- Ctsl — Siltstone with minor chert, shale and greywacke interbeds.
- Ctfg — Fine grained greywacke/hornfels with minor siltstone.
- Ctmg — Medium grained greywacke/hornfels with minor siltstone.
- Ctcg — Coarse grained greywacke/hornfels.
- Ctlg — Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz.
- Ctc — Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.
- Cts — Undifferentiated Cambrian sediments, mostly greywacke with minor lithic-wacke and conglomerate.

MAFIC DOCKS (McGraw Hill Complex)

- Csm — Undifferentiated serpentinised gabbro and/or basalt.
- Cbs — Undifferentiated basalt.
- Cbab — Massive to pillowed, aphyric basalt flows with interbedded breccia flows.
- Cbap — Pillowed aphyric basalt flows with interbedded breccia flows.
- Cbau — Undifferentiated gabbro.
- Cbagf — Fine grained gabbro.
- Cbagm — Medium grained gabbro.
- Cbag — Coarse grained gabbro.
- Cbb — Porphyritic (pseudomorphed clinoenstatite and/or orthopyroxene, chromite) basalt, commonly with interbedded pillow and breccia flows.

ULTRAMAFIC DOCKS (McGraw Hill Complex?)

- Csm — Undifferentiated Ultramafic (+/- mafic) and massive serpentinite.
- Cbag — Mafic gabbro, equigranular medium to coarse grained.
- Cbag — Mafic gabbro, spinifex textured.
- Highly feldspathic, medium/coarse grained gabbro.
- Csd — Serpentinized equigranular ultramafic/dunite?
- Csc — Pseudo-conglomeratic textured ultramafic.
- Csps — Spinifex textured ultramafic dunite?

PRECAMBRIAN (Duke's Formation)

- Pss — Shale (black).
- Psst — Siltstone and laminated siltstone.
- Pssn — Sandstone.
- Pssq — Quartz sandstone.
- Psu — Undifferentiated sediments.

DEVONIAN GRANITES

- Dgf — White granite/leucogranite.
- Dgm — Red granite.
- Dgpf — Red granite - porphyritic.
- Dgs — Quartz-rich granitoid (greisen?).
- 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 Psu, Cts, Csm and Su, major lithologies noted).
- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
- 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

ALTERATION AND MINERALISATION (>= moderate intensity shown)

- Cbs — Cream coloured calc-silicate veining & pervasive alteration.
- Pervasive silica with minor disseminated magnetite.
- Massive ironstone/magnetite.
- Mgt — Magnetite, veined and disseminated.
- Dsp — Pervasive silica-serpentinite alteration, +/- disseminated magnetite.
- Veined and/or semi-pervasive/ replacement silica - pyrite alteration.
- S — Veined (>=m) and/or pervasive serpentinisation.
- T — Tourmaline alteration.

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mining
Newnham I. A. EL22/1997

5 cm

SCALE : 1:5000

0 50 100 200 m

660177

Allegiance Mining N.L.

EL 28/88 - TRIAL HARBOUR

INTERPRETIVE GEOLOGY

COMPILED : Rob Reid
DATE : 27/06/2000
DRAWN : G. M. Bennett
REVISIONS :
FILE : TH Interp Geology 5000 v

Newnham Exploration and Mining Services

Figure No. 3.

LEGEND

QUATERNARY
- Qha — Alluvial gravels.
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- Ss — Greenish grey siltstone and siliceous fine grained sandstone with minor quartz sandstone.
- Sc — Grey/cream fine to medium grained quartz sandstone, lithic quartz-sandstone & minor conglomerate. Crinoid trace fossils locally.
- Scc — Pebble-cobble conglomerate with quartz sandstone, grey siliceous and minor quartz vein clasts, commonly moderately lithified.
- Scql — Quartzo-feldspathic (10 to 20%) sandstone, medium grained, locally lithic bearing (stippled).
- Sl — Calcareous thin bedded siltstone (Silurian?)
- Su — Undifferentiated sediments.

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

CAMBRIAN (Crimson Creek Formation)
- Cfsl — Siltstone with minor chert, shale and greywacke interbeds.
- Cfg — Fine grained greywacke/hornfels with minor siltstone.
- Cfmg — Medium grained greywacke/hornfels with minor siltstone.
- Cfcg — Coarse grained greywacke/hornfels.
- Cfg — Lithic-wacke/hornfels, bearing granules of greywacke and milky vein quartz.
- Cfc — Conglomerate, bearing mostly pebble-size greywacke clasts, with minor milky vein-quartz and siliceous clasts.
- Cfs — Undifferentiated Cambrian sediments, mostly greywacke with minor lithic-wacke and conglomerate.

MAFIC ROCKS (McGlone Hill Complex)
- Cfsp — Undifferentiated serpentinised gabbro and/or basalt.
- Cbs — Undifferentiated basalt.
- Cbsb — Massive to pillowed, aphyric basalt flows with interbedded breccia flows.
- Cbsp — Pillowed aphyric basalt flows with interbedded breccia flows.
- Cbsu — Undifferentiated gabbro.
- Cbsgf — Fine grained gabbro.
- Cbsgm — Medium grained gabbro.
- Cbsgc — Coarse grained gabbro.
- Cbb — Porphyritic (pseudomorphed clinoenstatite and/or orthopyroxene, chromite) basalt, commonly interbedded pillow and breccia flows.

ULTRAMAFIC ROCKS (McGlone Hill Complex?)
- Cum — Undifferentiated Ultramafic (+/- mafic) and massive serpentinite.
- Cbdg — Mafic gabbro, equigranular medium to coarse grained.
- Cbsg — Mafic gabbro, spinifex textured.
- Cd — Highly feldspathic, medium/coarse grained gabbro.
- Csc — Serpentinized equigranular ultramafic/dunite?
- Csch — Pseudo-conglomeratic textured ultramafic.
- Csch — Spinifex textured ultramafic dunite?

PRECAMBRIAN (Dorrah Formation)
- Pms — Shale (black).
- Psst — Siltstone and laminated siltstone.
- Pmss — Sandstone.
- Pmsq — Quartz sandstone.
- Pmu — Undifferentiated sediments.

DEVONIAN GRANITES
- Dgf — White granite/leucogranite.
- Dgpc — Red granite.
- Dgpf — Red granite - porphyritic.
- Dgrs — Quartz-rich granitoid (greisen?).
- Dms — 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 Pmu, Cts, Csm and Su, major lithologies noted).
- Fault, accurate.
- Fault, approximate.
- Fault, inferred.
- Thrust fault.
- Reverse fault
- 78 / 22 — 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
- Open cut or quarry
- Adit
- Trench
- Dump

5 cm

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini Newnham, L.A.
EL22/1997

660178

SCALE : 1:5000

0 50 100 200 m

Allegiance Mining N.L.

EL 28/88 - TRIAL HARBOUR	COMPILED : Rob Reid
	DATE : 27/07/2000
FACTUAL/OUTCROP GEOLOGY	DRAWN : G. M. Bennett
	REVISIONS :
	FILE : TH Outcrop 5000.WOR
Newnham Exploration and Mining Services	Figure No. 4

349000 mE
350000 mE
351000 mE
352000 mE
5356000 mN
5355000 mN
5354000 mN
Trial Harbour Road
TRIAL HARBOUR
EL 28/88
EL 22/97
Nickel Reward
Trial Harbour, Little Henty Spit
Little Henty River

660179

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10,000

0 100 200 400 m

Allegiance Mining N.L.

TRIAL HARBOUR
ROCK GEOCHEMISTRY
Ni (ln ppm)

COMPILED : G.M.Bennett
DATE : 01/08/00
DRAWN : G.M.Bennett
REVISIONS :
FILE : TH RG Ni 10000.wor

Newnham Exploration and Mining Services

Figure No. 6(a)

TRIAL HARBOUR

EL 28/88

EL 22/97

Trial Harbour Road

Little Henty River

Trial Harbour
Little Henty Spit

Nickel Reward

349000 mE

350000 mE

351000 mE

352000 mE

5356000 mN

5355000 mN

5354000 mN

660180

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10,000

0 100 200 400 m

Allegiance Mining N.L.

TRIAL HARBOUR

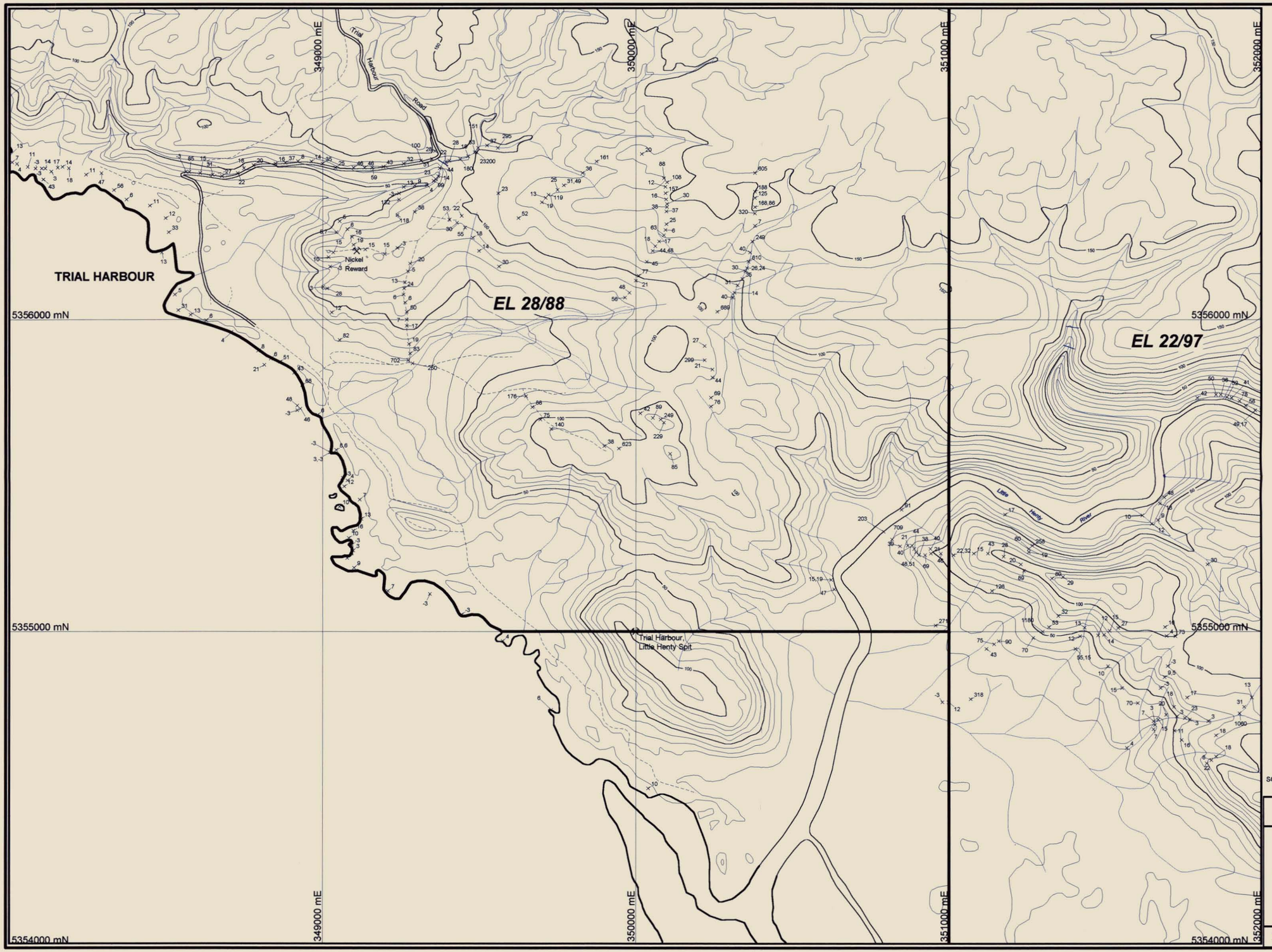
ROCK GEOCHEMISTRY

Cu (In ppm)

COMPILED : G.M.Bennett
DATE : 01/08/00
DRAWN : G.M.Bennett
REVISIONS :
FILE : TH RG Cu 10000.wor

Newnham Exploration and Mining Services

Figure No. 6(c)



660181

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Annual Report to August 2000 - EL22/1997 - Trial Harbour Area

Allegiance Mining NL*; Newnham Exploration and Mini

Newnham, L.A. EL22/1997

5 cm

SCALE : 1:10,000

0 100 200 400 m

Allegiance Mining N.L.

TRIAL HARBOUR

ROCK GEOCHEMISTRY

Pb (ln ppm)

COMPILED : G.M.Bennett

DATE : 01/08/00

DRAWN : G.M.Bennett

REVISIONS :

FILE : TH RG Pb 10000.wor

Newnham Exploration and Mining Services

Figure No. 6(c)

TRIAL HARBOUR

EL 28/88

EL 22/97

Nickel Reward

Trial Harbour
Little Henty Spit

Trial Harbour Road

Little Henty River

349000 mE

350000 mE

351000 mE

352000 mE

5356000 mN

5355000 mN

5354000 mN

00_4471

Annual Report to August 2000 - EL22/1997 - Trial Harbour Area
Allegiance Mining NL*; Newnham Exploration and Mini
Newnham, L.A. EL22/1997

660182

5 cm

SCALE : 1:10,000

0 100 200 400 m

Allegiance Mining N.L.

TRIAL HARBOUR

ROCK GEOCHEMISTRY

Zn (ln ppm)

COMPILED : G.M.Bennett
DATE : 01/08/00
DRAWN : G.M.Bennett
REVISIONS :
FILE : TH RG Zn 10000.wor

Newnham Exploration and Mining Services

Figure No. 6(c)