

Wednesday, 25 October 2017

HIGH GRADE COPPER GOLD RESULTS AT MT RHINE

The Board is pleased to announce Hillgrove has identified another opportunity for company growth as a result of its successful exploration at its Mt Rhine exploration project.

Highlights

- Selective rock chip sampling by Hillgrove has resulted in the discovery of surface outcrops of high grade copper and gold zones to 13.1% Cu and 49.8g/t Au (different samples)
- The soil geochemical and rock chip sampling has identified two zones with very high grade copper and gold results. Both zones are over 1.0km in length
- The Mt Rhine Project is 80kms via existing roads from the Kanmantoo processing plant and 12kms from its Kanappa copper-gold project
- The Mt Rhine Project will benefit from the existing copper-gold processing plant at Kanmantoo that operates at a very efficient \$7.30/tonne milled¹.

Hillgrove Resources Ltd (“HGO”) has identified several organic growth opportunities it intends to vigorously pursue during 2017-2018. The first of these growth opportunities is the depth extensions of the copper-gold orebodies currently being mined in the Kanmantoo open pit as explained in the ASX release of 25 May 2017.

The second of these growth opportunities to be pursued is the copper-gold mineralisation previously identified by HGO at its wholly owned Kanappa project².

The third growth opportunity is the copper-gold endowment at its wholly owned Mt Rhine exploration project, which is the subject of this release.

Figure 1 shows the location of the Mt Rhine copper-gold exploration project, approximately 80kms by road from the Company’s Kanmantoo processing plant and only 12kms from the Kanappa copper-gold project. The Mt Rhine project is easily accessed via existing bitumen roads to within 5kms of the project.

Historically, in 1991 ACM Gold drilled 4 wide-spaced RC holes at the western end of the gold-zinc-lead zone for a maximum of 2.75g/t Au³. In 2006 HGO completed a small soil sampling program (104 soil samples), and rock chip and channel sampling programs along a historically explored gold-zinc-lead zone at Mt Rhine. These results were reported to the ASX on 14 December 2006 “High grade gold zones identified at Kanmantoo”. Since 2006, HGO has also completed a detailed air-magnetic survey across the entire tenement area including the Mt Rhine copper-gold project.

HGO has undertaken two soil sampling programs over the Mt Rhine Project area (2006 and 2017) and assayed a total of 380 soil samples (104 samples in 2006 and 276 in 2017) by a combination

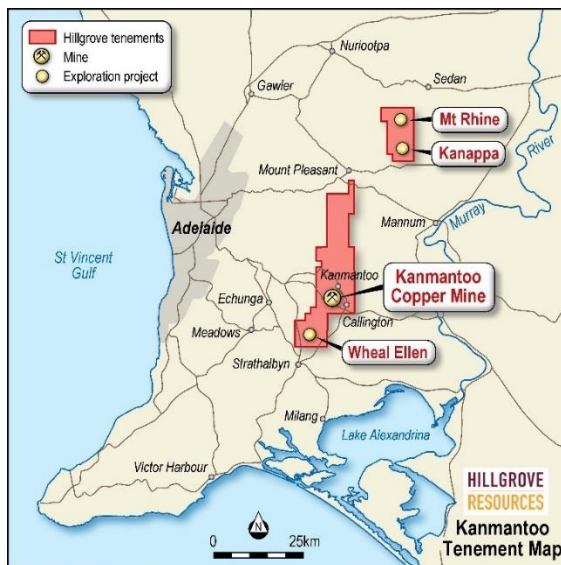
¹ Weighted average cost for last 24 months

² ASX Release “High grade copper gold at Kanappa” released on 25/05/2017

³ Referenced from the ASX release by HGO on 14 December 2006 “High grade gold zones identified at Kanmantoo”

of 4-acid ICP-AAS and Portable XRF assaying respectively (See Appendix 2 for the JORC Code for Reporting Exploration Results for explanations). Preliminary mapping and rock chip sampling (all assayed by 4-acid ICP-OES) has also been undertaken across the area in 2006 and 2017.

Figure 1 Location of the Mt Rhine copper-gold project



The Mt Rhine copper-gold exploration project is within the Kanmantoo Trough and hosted by similar geology as that at the Kanmantoo Copper-Gold Mine operated by HGO. Field mapping at Mt Rhine has identified several zones of high iron oxide-chlorite-white mica-biotite-silica alteration (as at Kanmantoo) over widths in excess of 50m. Mapping shows that there are two distinct zones of mineralisation evident.

Zone A strikes west-south-west and is characterised by strong gossan zones (Figure 2 below) and contains most of the historic Au-Pb-Zn-Ag mining activities. This zone is around 1km long and was the focus of the 2006 soil sampling and mapping program of HGO in 2006. This zone is characterised by high grade gold in association with base metals. The channel samples reported by HGO in 2006 are across the western and central end of this strong gossan zone. To summarise the 2006 ASX release⁴;

Detailed rock chip and channel sampling has confirmed the high grade nature of the Zone A prospect. Peak assays from rock chips from Zone A include 0.4% Cu, 9.7g/t Au, 5.2% Zn, 0.7% Pb, and 239g/t Ag. Channel sample intervals are;

MRCS001 32m @ 5.1g/t Au

MRCS002 16m @ 5.4g/t Au

MRCS003 20m @ 7.8g/t Au

MRCS004 10m @ 4.3g/t Au

⁴ HGO confirms that the form and context of the findings of the Competent Person of the ASX release of 14/12/2006 have not been materially modified from the original market announcement.

Figure 2 Example of historic copper-gold workings at Zone A, Mt Rhine



Zone B strikes north-south and extends over 1.7kms in length and is characterised by Cu-Au mineralisation within quartz veined and iron-altered metapelites, calc-silicate sediments and gabbros. This zone is the focus of the recent HGO soil sampling in 2017.

Figure 3 is a summary of the 276 HGO soil results analysed in 2017 and is depicted as a gridded image of copper values, annotated with a selection of rock chip assays from both the 2006 and the 2017 sampling programs (full results for all 17 rock chips collected in 2017 are available in Appendix 1, the full results for the rock samples from 2006 were previously reported in December 2006) and the locations of the known sites of outcropping copper mineralisation.

For Zone B, the zone of anomalous copper geochemistry is over 300 metres wide and 1.7 kilometres long, and open both north and south. Rock chip sampling has confirmed the high grade tenor of the outcropping copper-gold mineralisation of Zone B with rock chips to 13.1% Cu and 49.8g/t Au (separate samples). There is no historic mining along this zone, and no previous drilling.

HGO has also undertaken a high density air-magnetic survey of the Mt Rhine copper-gold area. Figure 4 shows an image of the magnetics (TMI) overlain with the 2006 and 2017 soil grid and the rock chip sample locations. The magnetics clearly show that the Zone A Au-Zn mineralisation is coincident with a west-south-west striking magnetic low and the Zone B Cu-Au mineralisation is parallel with a magnetic high striking north-south. The underlying Kanmantoo Group sediments are striking NW and attenuated against the north-south striking structural corridor.

Figure 3 Plan of the contoured 2017 soil geochemistry with selected rock chip results

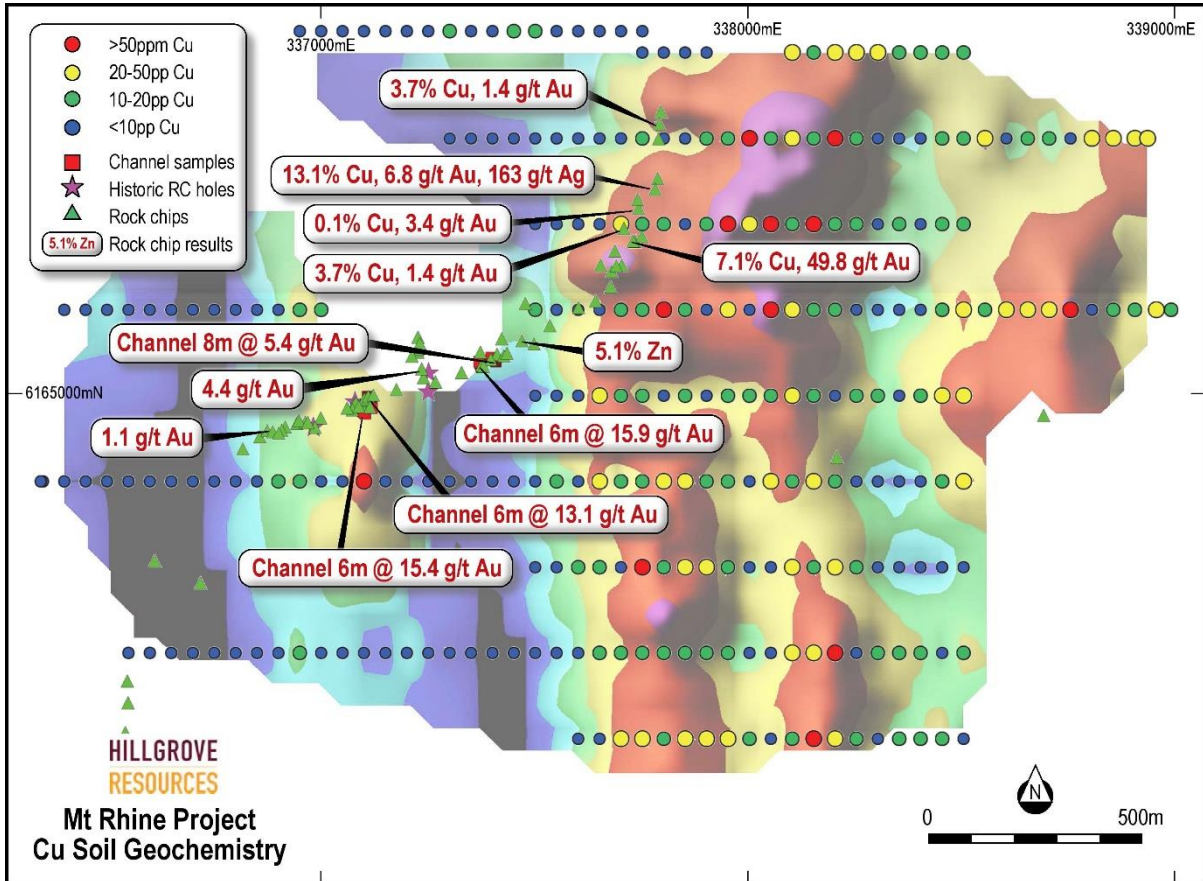
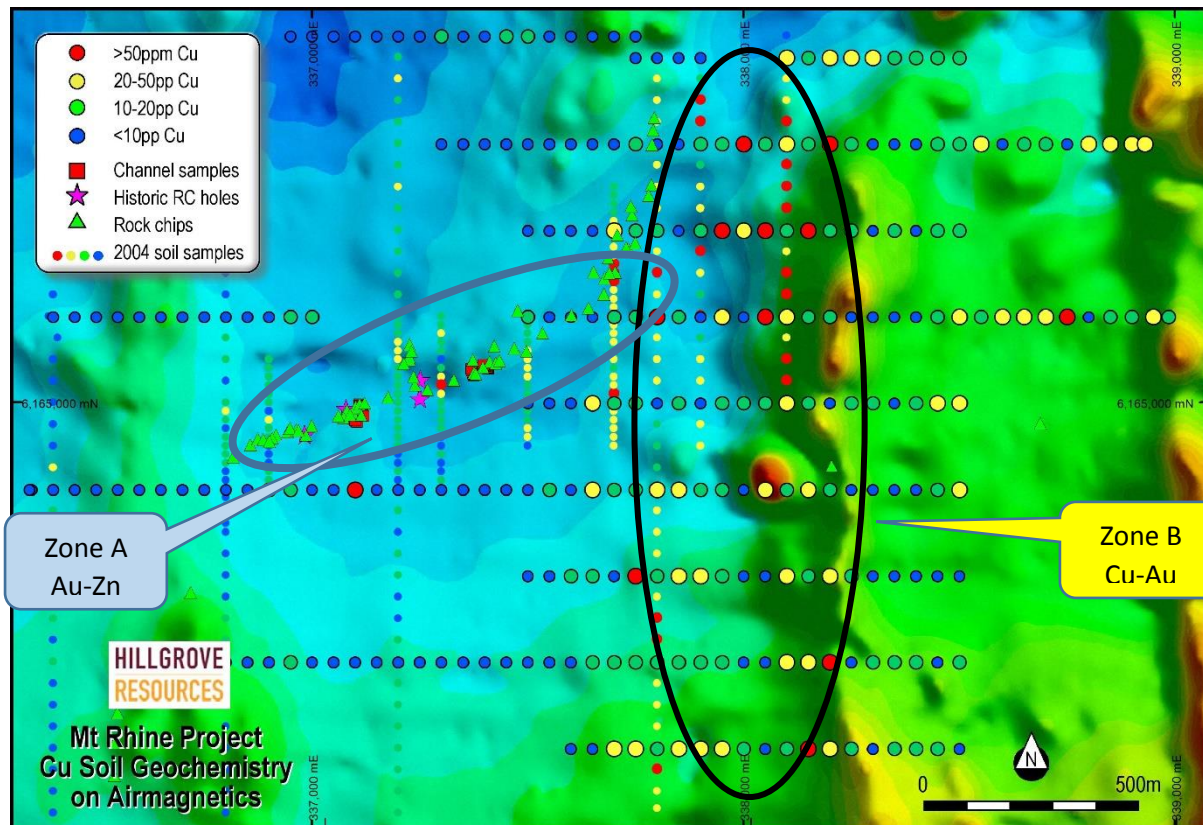


Figure 4 Air-magnetic image with 2006 and 2017 soil sampling and rock chips



Invested Infrastructure

The importance of the existing infrastructure at the Kanmantoo Copper Mine and in the region cannot be over-emphasised in assessing the economic materiality of the Mt Rhine and Kanappa copper-gold exploration projects. In particular:

- The existing copper-gold processing plant at Kanmantoo that operates at a very efficient \$7.30/tonne milled
- The risks associated with understanding copper and gold recovery and processing costs have been largely mitigated through the past 6 years of operation on similar mineralisation
- The extensive geotechnical database resulting from open pit mining for the past 6 years in similar rock types
- The potential to use the existing processing plant and tailings storage facility at Kanmantoo
- The existing bitumen public road access routes suitable for heavy haulage between the exploration sites and the Kanmantoo Processing Plant
- The synergies of having Mt Rhine and Kanappa within 10kms of each other

Proposed Exploration Activities

Further exploration activities are in progress to continue to sample and map the two copper-gold zones, in particular to infill the soil grid to 100m by 50m spacing. This is expected to be followed by a programme of electrical and magnetic geophysical surveys to define drill targets.

Hillgrove estimate that drill testing of the copper-gold exploration zone may be able to commence in 2018, depending on the required funding being available, and the success of the geophysical work confirming quality drill targets.

ABOUT HILLGROVE

Hillgrove is an Australian mining company listed on the Australian Securities Exchange (ASX: HGO) focused on operating its flagship Kanmantoo Copper Mine and associated regional exploration targets, located less than 55km from Adelaide in South Australia.

The Company has approximately 245 site based employees and contractors at Kanmantoo and at its small Adelaide corporate office.

Presently the Company is mining at the rate of up to 20 million tonnes per annum and has produced up to 20,000 tonnes of copper and 11,000 ozs of gold per annum.

With over \$60 million invested in the cutback of the Giant Pit, the Company expects to generate significant free cash-flows at very low stripping ratios in the coming year.

The Company's growth will come from the Kanmantoo Copper Mine operation in South Australia and exploration discoveries from its highly prospective near mine and greenfield exploration projects.

Competent Person's Statement

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Peter Rolley, a Competent Person, a full time employee of Hillgrove Resources Limited, and a member of the Australian Institute of Geoscientists. Mr Rolley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Mr Rolley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Further information on the Kanmantoo Mineral Resources and Ore Reserves is available in the Hillgrove Updated Mineral Resource and Ore Reserve Estimate released to the ASX on 18 October 2016, which is also available on the Hillgrove Resources website at www.hillgroveresources.com.au

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Appendix 1 – Table of Rock Chip Results

Sample_No	E_MGA94	N_MGA94	Au_ppm	Ag_ppm	Cu_pct	Pb_ppm	Zn_ppm
888952rc	336541.71	6164136.49	0.005	0.5	0.011	2	14
888953rc	336542.83	6164212.32	0.005	0.5	0.005	5	14
888954rc	336548.87	6164281.1	0.005	0.5	0.0002	2	14
888955rc	336547.44	6164332.37	0.005	0.5	0.001	2	16
888956rc	336718.51	6164560.54	0.005	1	0.0004	2	36
888957rc	336611.23	6164612.68	0.005	1	0.0004	5	24
888964rc	337707.33	6165387.65	7.7	24	0.145	400	290
888965rc	337685.97	6165335.12	0.005	1	0.042	15	90
888966rc	337685.97	6165335.12	0.005	1	0.047	560	180
888967rc	337652.54	6165302.16	0.005	0.5	0.009	680	910
888968rc	337476.73	6165213.05	0.28	3	0.008	4200	1600
949569rc	338687.36	6164951.82	N/A	N/A	0.001	18	4
949570rc	338204.36	6164853.38	N/A	N/A	0.002	6	4
949994rc	337372.2	6165098.82	7.6	550	0.37	3000	110
949995rc	337421.92	6165130.82	0.4	4	0.039	420	390
R409	337733.1	6165356.9	6.83	163	13.05	2040	230
R410	337740.9	6165434.7	3.43	43.9	0.121	17300	4540

APPENDIX 2 – JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> All sampling was conducted as per the Hillgrove Resources procedures and QAQC protocols. <p>Soils:</p> <ul style="list-style-type: none"> Portable XRF soil geochemistry – all 2017 soil samples <ul style="list-style-type: none"> A Niton XL3t Gold portable XRF was used to analyse a sieved fraction of the soil regolith. Soil was collected from the B Horizon and sieved to -1mm. A 10g aliquot was pressed into separate cups. Each cup was analysed, each reading for a total of 120 seconds. A Standard and blank was used every 20th sample. 4-acid digest ICP-AAS – all 2006 soil samples <ul style="list-style-type: none"> A commercial assay laboratory was used to analyse a bulk soil collected from the C Horizon. The entire sample was pulverised to -75um and then a 1g aliquot digested and analysed by ICP-AAS. <p>Rock Samples – all rocks</p> <ul style="list-style-type: none"> A commercial assay laboratory was used for all rock chip results. The entire rock sample was crushed and then pulverised to -75um. A 1g aliquot weighed and digested in a 4-acid digest with an ICP-OES analysis.
<i>Drilling techniques</i>	No drilling is reported in this release
<i>Drill sample recovery</i>	No drilling is reported in this release
<i>Logging</i>	<ul style="list-style-type: none"> All Rock chips and soil samples were logged for lithology, alteration, and weathering by Hillgrove Geologists in accordance with Hillgrove’s Logging Procedure. All geological logging readings are recorded in the field using a paper-based system and then entered into Excel spread sheet templates and visually validated before being imported into the Hillgrove drill hole database. Additional validation is conducted automatically on import.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> Rocks totally crushed and then total material pulverised to -75um Soils were prepped as described under the “Sampling Techniques”
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> All rock chip samples were submitted to a commercial assay laboratory for analysis. Gold was determined by fire assay by flame AAS (FA50) and copper analysed via a mixed acid digest (method AT) with determination by Optical Emission Spectrometry (OES). If the copper result was greater than 1%, the analysis was repeated using a slightly modified mixed acid digestion technique (method AX). The QAQC of sample preparation and analysis processes were via the following samples: <ul style="list-style-type: none"> Certified reference materials (CRMS) inserted into the sample sequence at a frequency of one in 20.

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Criteria	Commentary
	<ul style="list-style-type: none"> • Blanks inserted at a rate of one in every 20 samples. • Laboratory QAQC samples were inserted with a minimum of two standards and one blank for every batch of 40 samples. • Hillgrove’s Quality policy is that at a minimum of 5% of all samples are CRM’s, 5% of samples submitted are blanks and 5% of samples submitted are field duplicates thus ensuring that as a minimum, 15% of all samples submitted for analysis are QAQC samples. • Results from all returned QAQC samples provide reasonable confidence as to the accuracy of the assay results used in the estimation. Field duplicates show a good correlation with original sample results and in general most CRM results fall within the expected ranges.
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> • As described under the “Sampling Techniques”
<i>Location of data points</i>	<ul style="list-style-type: none"> • The map projection of Map Grid of Australia 1994 - Zone 54, (MGA94-54) was used for all work undertaken for these samples • The survey for all soil samples and rock chip samples is determined from a hand held Magellan GPS to an accuracy of +/- 5m in east and north
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • The soil sampling undertaken in 2017 was undertaken on east-west lines at 200m intervals with samples each 50m along the lines, and has focused on the copper-gold mineralisation within north-south oriented magnetically complex zones • The soil sampling undertaken in 2006 was along north-south oriented lines at varying intervals and focused on defining the west-south-west gold-zinc line of mineralisation • The rock chips were collected as required by the geologist
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • Rock chips have no orientation • The 2017 soil sample grid is oriented normal to regional geological stratigraphy and structures
<i>Sample security</i>	<ul style="list-style-type: none"> • Rock samples – A Hillgrove employee collects the rock chip and carries it personally to the geology office for collation and despatch to the assay lab. • Soil samples are in the possession of the geologist or the field technician during collection and transport to the geology office. Thence collated for despatch to the assay laboratory, or to the XRF room at the Kanmantoo Mine Site for XRF analysis. Hillgrove has a detailed sample collection/submission procedure in place to ensure sample security. • Sample transport is by dedicated road transport to the sample preparation facility in Adelaide. All samples are transported in sealed plastic bags and are accompanied by (either paper form or by email) a detailed sample submission form generated by the Field Technician. • On receiving a batch of samples, the receiving laboratory checks received samples against a sample dispatch sheet supplied by Hillgrove personnel. On completion of this check a sample reconciliation report is provided for each batch received.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • Anomalous Soil sampling and rock chip sampling results were checked in the field by the Exploration Manager. QA/QC results also checked.

Section 2 Reporting of Exploration Results

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> The Mt Rhine copper-gold project is situated 75kms east of Adelaide on Exploration Lease (EL) 5628 and is owned 100% by Hillgrove Resources Limited (HGO). The EL overlies freehold grazing land for which HGO has executed an Access Agreement with the landowner. There are no Native Title interests, nor are there any historical or environmental issues considered material to this exploration activity.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> The Mt Rhine copper-gold has a limited mining and exploration history dating back to the mid-19th century. Mining ceased around 1917. Regional stream sediment programs were undertaken by Australian Selection in 1965, Carpentaria in 1971, Australian Aquitaine in 1972 and CRA in 1981 In 1991, ACM Gold drilled a total of four RC holes at the western end of the gold-zinc zone for 1m @ 2.7g/t Au Hillgrove Resources commenced exploration sampling in 2004. Work at Mt Rhine by HGO ceased in 2006 whilst the DFS for Kanmantoo Copper Mine was completed and the Kanmantoo Mine entered into production.
<i>Geology</i>	<ul style="list-style-type: none"> Mineralisation occurs as a complex system of structurally controlled veins, with mineralisation appearing to form zones of chalcopyrite, pyrrhotite, pyrite, magnetite, malachite, azurite within a quartz + biotite + andalusite ± garnet ± chlorite schist host rock. Mapping suggest the main controls on the mineralisation are north-south striking shear zones, and west-south-west striking cross-shears and tension veins.
<i>Drill hole Information</i>	<ul style="list-style-type: none"> No drilling is reported in this release
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> Rock chip result as assayed – no aggregation. Soil sample results are contoured from the original assays.
<i>Mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> No drilling is reported in this release
<i>Diagrams</i>	<ul style="list-style-type: none"> Diagrams that are relevant to this release have been included in the body of the release.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> All rock chips have been reported in Appendix One, or previously reported in December 2006. All Soil samples have been contoured and presented as a contour image
<i>Other exploration data</i>	<ul style="list-style-type: none"> There is no other exploration data used
<i>Further work</i>	<ul style="list-style-type: none"> The Company is proposing to undertake further geophysical work before deciding on a drill test programme.