Beruang Kanan Main Zone, Kalimantan, Indonesia;

2015 Resource Estimate Report.

Prepared under the auspices of the Canadian National Instrument 43-101

November, 2015

Prepared for PT Kalimantan Surya Kencana
by
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Qualified Person's Report on the Mineral Resources of the Beruang Kanan Main Zone Mineralisation 2015.

Prepared for PT Kalimantan Surya Kencana.
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1 Summary

1.1 Project and Resource Overview

The Beruang Kanan 2015 Resource Estimate deals with the copper mineralization for the Beruang Kanan prospect located 180 kilometers north of Palangkaraya, the capital city of Central Kalimantan. The Beruang Kanan mineralization is located within tenement held 100% by PT Kalimantan Surya Kancana (KSK) under the Generation 6, KSK Contract of Work. KSK is in turn 75% owned by Indokal Limited (a 100% owned subsidiary of Asiamet Resources Limited *(formerly Kalimantan Gold Corporation Limited)* and 25% by PT Pancaran Cahaya Kahayan. PT Pancaran Cahaya Kahayan is a 99% owned subsidiary of Indokal Limited with the remaining 1% owned by Mr. Mansur Geiger (held in trust for Asiamet Resources Limited).

KSK, through Asiamet Resources Limited publically reported the Beruang Kanan Main Zone 2015 Copper Resource Estimate on the 21st October 2015. The 2015 Estimate is an update of the 2014 Estimate of mineralization at Beruang Kanan Main Zone (BKM) and is based on the KSK and joint venture partners' drill hole logging and sample assay databases as at 15th October 2015 and the geological and structural interpretation undertaken by Mr. Stephen Hughes (KSK) and Mr. Duncan Hackman of Hackman & Associates Pty Ltd (H&A). The data analysis, triangulation domaining, block modeling and grade interpolation was undertaken by Mr. Hackman. Mr. Hackman verified components of the exploration activities and mineralization features during a site visits conducted between the 2nd and 3rd September 2014 and the 21st and 28th June 2015.

The 2015 resource model covers the 1300m north-south strike extent and 900m width of the Beruang Kanan Main Zone vein style mineralized system which well defines the extent of the near surface mineralisation at BKM. Three deep holes under the main areas of near surface mineralisation have failed to intersect significant copper mineralisation, however the depth repetition of mineralisation has not been fully tested. There are indications from the structural interpretation that repeat systems at depth and proximal to the Beruang Kanan Main Zone may exist.

Copper mineralisation occurs as covellite and chalcocite replacement of pyrite and as chalcopyrite within quartz veins and fracture fill. The copper is of likely hypogene origin. Veins and mineralisation are hosted in both blocky fractured volcanics and sediments, mainly in the south of the prospect and, in strongly sheared and tectonically milled breccias related to thrusting mainly in the central and northern parts of the prospect. Intense advanced phyllic-style alteration exists throughout the prospect.

The Beruang Kanan resource model is underpinned by data from 145 Diamond Drill holes (31,592m). Modeled copper mineralisation has been intercepted in 749 nominal 3m drill intervals (2,432m) from historic drilling and 1,901 nominal 1m drill intervals (2,366m) in holes drilled in 2015.

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Topographic control is achieved through the use of a highly detailed LIDAR generated surface to which all drill hole collar coordinates comply. Sample data was composited to three metre lengths and flagged by domains defined by >2000ppm copper assay grades and directed by the H&A structural interpretation. Three passes of Ordinary Kriging interpolation methodology were employed to estimate grades within domains into a sub-blocked model (parent block size of 25mEx25mNx10mRL).). High grade copper assays were included in the interpolation with limits to their area of influence applied. The resource estimate has been classified based on data density, data quality and reliability, confidence in the geological interpretation and confidence in the copper grade modeling and interpolation.

The KSK CoW is officially in its 5th year of exploration stage following a number of previously granted suspensions (the KSK CoW has been granted for a minimum of 38 years). The KSK CoW is in good standing regarding meeting expenditure, social and environmental commitments and KSK possesses current permits to operate within production forest covered by the CoW.

The Indonesian Government is in the process of addressing historic Contracts of Work to ensure that they are aligned with the current mining law. KSK and the Indonesian Government are negotiating details of a non-binding Memorandum of Understanding to update terms of the KSK CoW that addresses details of 1) royalties 2) size of CoW in Exploration vs. Production 3) domestic processing 4) divestment obligations 5) State revenues and 6) prioritizing the use of local manpower and local products. KSK states that continued progress is being made and they are encouraged by their discussions with the Indonesian Government. The amendments will not alter KSK's holding in the CoW.

1.2 Resource Estimate

The Beruang Kanan resource is reported between 768300mE and 769200mE, 9931450mN and 9932750mN and above 130mRL (450m vertical extent). Table A details the Beruang Kanan Main Zone Copper Mineral Resource as estimated in the 2015 resource model.

Table A: Beruang Kanan Main Zone Copper Resource Estimate, October 2015.

Indicated Mineral Resources				
Reporting cut (Cu %)	**Tonnes ('000)**	**Cu Grade (Cu %)**	**Contained Cu ('000 tonnes)**	**Contained Cu ('000,000 lbs)**
0.2	**15,000**	**0.7**	**105**	**231**
0.5	12,600	0.7	88	194
0.7	5,600	0.9	50	110

Inferred Mineral Resources				
Reporting cut (Cu %)	**Tonnes ('000)**	**Cu Grade (Cu %)**	**Contained Cu ('000 tonnes)**	**Contained Cu ('000,000 lbs)**
0.2	**49,700**	**0.6**	**298**	**657**
0.5	25,300	0.7	177	390
0.7	9,800	0.9	88	194

Notes:

Mineral Resources for the Beruang Kanan mineralization have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. In the opinion of Duncan Hackman, the block model Resource Estimate and Resource classification reported herein are a reasonable representation of the copper Mineral Resources found in the defined area of the Beruang Kanan Main mineralization. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve. Computational discrepancies in the table and the body of the Release are the result of rounding.

H&A is not aware of any current legal, political, environmental, permitting, taxation, socio-economic, marketing or other risks that could materially affect the potential development of the Mineral Resources at BKM.

1.3 Comparison with 2014 Resource Estimate

The previous, 2014 resource estimate was reported as 47MT @ 0.6%Cu or 280KT of contained copper at a 0.2% reporting cut.

The 2015 resource estimate shows an improved level of confidence in 15MT of the former resources which are now reported as Indicated Resources (15MT @ 0.7%Cu, or 105KT of contained copper at a 0.2% reporting cut). The expansion drilling has replaced and marginally increased the upgraded Inferred Resources which now stands at 49.7MT @ 0.6%Cu, or 298KT of contained copper at a 0.2% reporting cut.

1.4 Contributing Experts

Expert Person / Company	Area of Expertise and Contribution of Expert
Duncan Hackman B.App.Sc *MSc. MAIG.* Hackman & Associates Pty. Ltd.	*Exploration and Resource Geologist – 30yrs experience*. Data validation and quality analysis, resource domaining, block modelling, grade interpolation, resource classification. Qualified Person reporting on Beruang Kanan Main Zone Copper Resource Estimate

Expert Person / Company	Area of Expertise and Contribution of Expert
Stephen Hughes *BSc.(Hons)*, PT Kalimantan Surya Kancana.	*Copper Gold Exploration Geologist – 17yrs experience.* Geological interpretation.

1.5 Compliance with the Canadian NI 43-101 assessment criteria

The Beruang Kanan Main Zone Copper Resource Estimate and this mineral resource report has been compiled in accordance with the guidelines set out in the Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects (NI 43-101).

Duncan Hackman is a member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity undertaken to qualify as a Qualified Person as defined in NI 43-101.

Duncan Hackman consents for the inclusion in the PT Kalimantan Surya Kancana Public Release Statement of the matters based on his information and for Kalimantan Surya Kancana or their agents to use this resource estimate in the form and context in which it appears. The opinions and recommendations provided by Duncan Hackman are in response to requests by PT Kalimantan Surya Kancana and based on data and information provided by PT Kalimantan Surya Kancana or their agents. Duncan Hackman therefore accepts no liability for commercial decisions or actions resulting from any opinions or recommendations based on their data and information and offered within.

Duncan Hackman
B.App.Sc., MSc., MAIG
Consultant Geologist
Hackman & Associates Pty. Ltd.

1.6 Key points relating to the Beruang Kanan 2015 Resource Estimate:

1. The resource estimate applies to outcropping vein style copper mineralization centred on 768800E, 9932400N (WGS84, UTM Zone 49S). The mineralization has been delineated as twenty-five stacked and adjacent domains covering a strike length of 1300m (towards 000^{O}), across a total width of 900m and a vertical extent of 450m. Mineralization is centered on three areas whose lateral and vertical extents are well defined. Structural interpretation

indicates potential for repeat settings to exist at depth and in laterally detached locations to Beruang Kanan.

2. Covellite, chalcocite and chalocpyrite vein style copper mineralization is hosted in sheared and blocky sediments and volcanics of Cretaceous to Tertiary age. The mineralization is located within and adjacent to an interpreted thrust fault-coupling or ramping zone. Extensive and intense phyllic-style alteration persists throughout the mineralised zone.
3. 145 diamond drillholes have been drilled within and around the Beruang Kanan mineralisation. 71 of these holes were drilled by KSK between May and September 2015, and the additional drilling and data from these holes form the basis of the 2014 to 2015 resource estimate update for the deposit. The mineralisation is delineated by 93 of the 145 holes, totaling 17,538m of which 4,798m have intercepted the domained mineralisation. Drilling of the deposit was undertaken in five programmes by three separate companies; PT Kalimantan Surya Kancana (KSK), Oxiana Limited (OX) and PT Eksplorasi Nusa Jaya (ENJ). The latter two companies undertook their work in Joint Venture with KSK. Hole attitudes are mostly angled between 60 and 70^{O} towards 270^{O}. There are no twin holes drilled at Beruang Kanan.
4. Historical sampling of mineralization is at a nominal 3m length. Drilling of mineralisation undertaken by KSK in 2015 is sampled at nominal 1m lengths while non-mineralised core is sampled at nominal 2m lengths. Copper, gold, silver, antimony, lead, zinc, arsenic and molybdenum assays from 8,211 half-PQ, half-HQ, half-NQ and half-BQ diamond core samples populate the resource dataset, with the ENJ samples including an additional 14 elements and the 2015 KSK dataset including an additional 27 elements. 3,198 of the drill intervals are modeled within the mineralised domains at Beruang Kanan. Copper is the only element with potentially economic grades and is accompanied by 0.5ppm to 1.0ppm silver.
5. Copper grades of samples from NQ/BQ core average 26% lower than those from PQ/HQ core samples. This difference is due to a base shift or systematic relative bias between the two datasets and may be related to the fundamental sampling error or to variations in grade throughout the mineralisation (PQ and HQ drilling samples shallower depths of mineralization than NQ and BQ drilling). It is unknown if the laboratory sample reduction methods are appropriate, where historically samples were reduced to 1kg in size at -4mm crush size and in 2015 samples were reduced to 1kg in size at -2mm crush size. Early analysis of QC data in 2015 showed that -2mm particle size returned acceptable levels of precision, however later QC results showed that 28% of crusher duplicates possessed percent mean paired differences of >5%. Investigations into the issue is ongoing at the time of report preparation, however the comparatively uniform grade profile in the dataset suggests that any introduced variance at this stage of sub-sampling will not materially affect confidence in the global resource estimate. Samples were digested by mixed 3 acid-digest methods and determined by both ICP-OES and AAS instruments. Assay quality control samples included with the ENJ and 2015 KSK drill samples show that confidence can be placed in assays from this dataset. Comparison of data population distributions between the ENJ copper assays, the 2015 KSK assays and the historic assays indicate that the earlier

assays are also of acceptable reliability for estimating global resources. The assay data is considered of acceptable quality to underpin Indicated and Inferred Resources (NI 43-101) at Beruang Kanan.

6. Copper grade is estimated by ordinary kriging interpolation methodology. Interpolation is guided and constrained by solid TIN (triangulated) boundaries. 1,672 three metre composites inform the grade interpolation within domains. Parent cell estimates (25mEx25mNx10mRL) were written to a sub-blocked model. High grade values (>3%Cu) were restricted from informing block grades at greater than 50m (E and N) and 25m (RL) distance from sample locations. 30 copper composites were affected by this treatment. Tonnage factors (based on 1,389 dry bulk density measurements) of 2.33g/cc, 2.70g/cc, 2.77g/cc and 2.85g/cc were stamped on the model according to mineralisation and weathering characteristics.
7. The estimate is assigned Indicated and Inferred Mineral Resource classifications under the guidelines outlined in the Canadian National Instrument 43-101. Risk associated with drilling density and orientation suitability, primary sampling reliability, certainty in geological and grade continuity, sample reduction strategy suitability and the unknown reliability of historic assay data are the key inputs in determining the resource classification.

1.7 Further evaluation and exploration

The Beruang Kanan Main Zone Copper Resource Estimate is currently drilled at between 50m and 100m centres. Infill drilling to reduce the drilling pattern to within 50m centres will generate significant data and information relating to geological and copper grade continuity. This drilling should allow further volumes of the mineralisation to be considered for higher classifications in future estimates (Indicated and Measured Resources as described in the NI 43-101). In addition this drilling, with the appropriate studies and focus, will assist in understanding (and alleviating) areas of risk identified in the current Beruang Kanan Main Zone dataset (noted in Section 1.6 above).

KSK is currently undertaking Initial metallurgical testwork on the BKM copper mineralisation, with fresh samples being collected from the infill drilling programme. This work is part of a recently commissioned Preliminary Economic Study due for completion in Q1 2016.

Scout drilling of the five adjacent prospects for repeat styles and other styles of mineralisation should assist with building the mineral resource base within the immediate vicinity of the Beruang Kanan Main Zone Copper Resource and, KSK should also consider continuing the evaluation of mineralisation located at the Baroi, Mansur and Beruang Tengah prospects and other lesser developed prospects within the KSK CoW.

1.8 Recommendations

The following activities directed at improving the confidence in the input data utilized in generating future estimates of the copper resources at Beruang Kanan are recommended by H&A:

- Investigate the impact that the primary sample size has on copper grade representivity and reliability for improving robustness and confidence in future assay datasets. In particular:
    - understand the reasons why the NQ and BQ core samples report lower copper grades than the PQ and HQ core samples,
    - determine if precision and accuracy issues relating to the sample reduction protocols impact on the reliability of copper assays in the current dataset and
    - incorporate duplicate hole drilling into future programmes to better understand the heterogeneity of the in situ mineralization
- Improve knowledge and understanding of mineralizing processes and their expected attitudes, geometries and extents for designing infill drilling programmes.
- Investigate the relationship between copper grade and mineralization events (veining styles/density/orientation) to assist in the design of future drilling (hole orientation and density).
- Continue to build a comprehensive specific gravity dataset to generate reliable dry bulk density and bulk density datasets for use in future resource estimates and engineering studies.
- Increase confidence in the historic KSK dataset through programmes such as twinning of key holes.
- Rebuild the ENJ-KSK assay dataset and remove quality control umpire assays from the primary data.
- Review all protocols for future evaluation work to ensure their suitability regarding mineralisation styles, local conditions, sample and data integrity and use, sample and data security and storage etc.

These recommendations will require new drill core and would be included in a programme designed to increase the confidence of future resources at the Beruang Kanan Main Zone.

The following programmes are recommended for improving confidence in the BKM resource and in expanding the resource base in the BKM zone area:

Stage 1 – Infill and resource drilling at BKM:

This programme comprises diamond drilling totaling 14,000 m (approximately 150 holes averaging 90m each) on a 50 metre by 50 metre grid to infill drilling at the BKM mineralization. This program could be carried out in 5-6 months using 5 man-portable drill rigs, assuming an average daily drilling rate of 20m per rig. The outcome is to upgrade the classification of the Mineral Resources at BKM to Measured and Indicated Resources achieving confidence levels for resources that can support a preliminary and definitive feasibility studies.

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Stage 2 – scout drilling at prospects adjoining Beruang Kanan Main Zone:

This program comprises additional mapping and systematic sampling on surface at Beruang Kanan West, Beruang Kanan South and Beruang Kanan Polymetallic Prospects to test current targets and identify mineralisation (and results dependent, additional targets for testing). Scout diamond drilling totaling 2,500 m (approximately 20 holes averaging 125m each) is proposed, to test the mineralization at Beruang Kanan West, Beruang Kanan South, Beruang Kanan Polymetallic North, Beruang Kanan Polymetallic South, and the Low Zone Prospects. This program could be carried out in 2 months using 2 man-portable drill rigs, assuming an average daily drilling rate of 20m per rig. The outcome is to identify areas for drilling to delineate additional resources within the immediate vicinity of the Beruang Kanan Main Zone.

In addition to the extension and upgrading of the BKM resource H&A acknowledges that KSK has commissioned a Preliminary Economic Assessment Study (as defined by the NI 43-101) that is scheduled for completion Q1 2016. This study has been budgeted at US$150,000.

The total of Stage I, Stage II and PEA budgets is estimated at US$4,053,000

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2 Introduction

This report details aspects of the Beruang Kanan Main Project and the generation and classification of the Copper Mineral Resource identified by drilling of the prospect in accordance with directives set-out in the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

The Beruang Kanan Main Zone 2015 Resource Estimate is an update of the 2014 Resource Estimate and deals with the copper mineralization for the Beruang Kanan prospect located 180 kilometers north of Palangkaraya, the capital city of Central Kalimantan. The Beruang Kanan mineralization is located within tenement held 100% by PT Kalimantan Surya Kancana (KSK) under the Generation 6, KSK Contract of Work. Asiamet Resources Limited (AMR) through subsidiaries and affiliates holds 100% of PT Kalimantan Surya Kancana.

This report is prepared for PT Kalimantan Surya Kancana who publically reported the Beruang Kanan Main Zone 2015 Resource Estimate through their parent company Asiamet Resource Ltd in a statement dated October 21, 2015.

2.1 Terms of Reference

This report comprises Hackman And Associates Pty Ltd (H&A) independent Qualified Persons technical assessment of the mineral resources located within the Beruang Kanan Main Zone Prospect (BKM), Kalimantan, Indonesia. BKM is held under license by PT Kalimantan Surya Kencana (KSK) and copper mineralization at the prospect can be considered material with respect to assets held by the company.

The objectives of this report are to:

1. Present aspects of the BKM project, environs and statutory/compliance standings so that the reader can gain an appreciation of the project.
2. Present the 2015 Resource Estimate of copper mineralization at BKM and to identify and classify risk associated with the estimate so that the reader can better understand the value of the BKM prospect to KSK and the confidence independent qualified persons' place in the reliability of the estimate.

The report:

1. relays the current understanding of the geology and mineralization styles uncovered at the BKM prospect,
2. reports on the current standing of the project's tenure status,
3. relays the current understanding of the geographical, cultural, social and environmental aspects associated with the project,

4. reviews the historical activities undertaken in evaluating the BKM prospect,
5. presents the work undertaken in producing the mineral resource estimate for BKM,
6. evaluates reliability risks within inputs and methodologies undertaken in producing the mineral resource estimate,
7. presents material aspects of the BKM prospect for consideration in evaluating its value to KSK,
8. outlines the process undertaken to classify the mineral resource estimate according to the directives set out in the Canadian National Instrument 43-101 and accompanying policies and documents,
9. comments on the similarities and differences between the 2015 resource estimate and the 2014 resource estimate, and
10. presents interpretations, conclusions and recommendation, including indicative exploration and evaluation activities and budgets.

2.2 Reporting standard

This report has been produced in accordance with the Standards of Disclosure for Mineral Projects as contained in National Instrument 43-101 (NI 43-101) and accompanying policies and documents. NI 43-101 utilizes the definitions and categories of mineral resources and mineral reserves as set out in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves – Definitions and Guidelines (CIM Definition Standards).

2.3 Data and Information Sources

All data and Information utilized in preparing the Beruang Kanan Main Zone 2015 Resource Estimate and this report were supplied by or verified by KSK personnel (refer Table 5) who have provided a written assurance that the data supplied is current, complete, accurate and true and that they have disclosed all data and information material for the assessment of the resources at BKM (Appendix 11).

2.4 Qualified Persons Site Inspection

Duncan Hackman has undertaken two site inspections of the Beruang Kanan Main Zone and the KSK Tangkiling core processing facilities where historic drill core was processed and where remaining core is currently stored. The primary reason for visiting the prospect and core shed was to locate and confirm evidence of historic exploration activities reported by KSK and their JV partners, to observe and confirm copper mineralisation in core and outcrop and to observe and review drilling and sampling protocols employed by KSK in their 2015 drilling campaign. Duncan Hackman also visited the PT Intertek Utama Services Laboratory in Jakarta (ITS) to review the sampling reduction and preparation procedures employed.

H&A did not uncover any reason to question the exploration activities undertaken in exploring and evaluating the Beruang Kanan prospect nor to question the presence of copper mineralisation of the tenor and styles reported by KSK. The sampling procedures at site and sample preparation procedures at ITS were found to be sound and considered appropriate for generating reliable sub-sample aliquots for assay (see Section 12 for details and data analysis). Key observations and comments from the site visits are included at Appendix 8.

2.5 Work Undertaken

The Interpretations, opinions, Methodologies and Comments presented in this report are based on the following work programmes undertaken in 2014 (as part of the 2014 resource estimate) and in 2015 (resource update):

2014:

- Early-July – review of documents transferred via DropBox from KSK to H&A. These expert and internal reports outline the:
  - geographical, cultural, social and environmental aspects of the BKM project,
  - geological and mineralization setting and styles identified/interpreted at BKM,
  - historical exploration undertaken at BKM, and
  - data collection and validation procedures and quality investigations undertaken by previous workers.
- Mid-July – review of drilling logs against core photographs to validate and assess previous workers factual data and interpretations.
- Late-July – geomorphological and geological/structural interpretation of the BKM prospect and surrounds for guiding resource estimate domaining.
- Early-August – construct domained mineral resource block model and undertake copper grade interpolation
- Mid-August – review block model domains and specific gravity measurements against core photographs to validate and assess estimate and applicable tonnage factors.
- Late-August – report writing and compilation
- Early-September – site visit
- Mid to Late September – report editing, factual detail checks with KSK via draft report and report finalization for public release.

2015:

- Late-June – site and laboratory visit – protocols review and adjustment

- July-October – on-receipt of assay data, ongoing assay quality control data review and laboratory quality management
- Early-August – undertake mineralisation review through multi-element assay association investigation
- Mid-August – update 2014 structural interpretation
- Late August – assay quality control review (including umpire assay results)
- Early-September – undertake preliminary data evaluation studies (DBD, core recoveries etc)
- Mid-September – update mineralisation domain models
- Early-October – update mineralisation domain models and data evaluation studies
- Mid-October – update mineralisation domain models and data evaluation studies, construct domained mineral resource block model and undertake copper grade interpolation
- November – report writing and compilation

2.6 **Qualification of Consultants**

H&A is an independent highly experience technical consulting group whose principals and associates each have a minimum of 28 years' experience in the mining and resources industry.

H&A's independence is ensured by the fact that it holds no equity in any project and that its ownership rests solely with its principals. H&A has a demonstrated track record in undertaking independent assessments of Mineral Resources, Ore Reserves, project reviews and audits, competent person's reports and independent feasibility evaluations on behalf of exploration and mining companies and financial institutions world-wide. H&A has specific and extensive experience in undertaking mineral resource estimates of copper prospects of the styles identified at BKM.

This report has been prepared by Duncan Hackman (B.App.Sc., MSc., MAIG). Duncan Hackman has the expertise and experience required to be considered a Qualified Person under the guidelines outlined in the Canadian National Instrument 43-101 for undertaking resource estimates on mineralization styles such as those identified at BKM.

2.7 **Statement of Independence**

Neither H&A nor any of the authors of this Report have any material present or contingent interest in the outcome of this report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of H&A.

H&A has no prior association with KSK or their affiliates in regard to the mineral asset that is the subject of this Report. H&A has no beneficial interest in the outcome of the technical assessment being capable of affecting H&A's independence.

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H&A's fee for completing this Report is based on its normal professional daily rates plus reimbursement of incidental expenses. The payment of that professional fee is not contingent upon the outcome of the report. A signed statement of independence is included at Appendix 1.

2.8 Consents

Pursuant to Section 8.3 of NI 43-101 H&A and the author consent to this Report being published, in full, on SEDAR and the KSK and their associated parties' web sites in the form and context in which the technical assessment is provided, and not for any other purpose.

H&A provides this consent on the basis that the technical assessments expressed in the Summary and in the individual sections of this Report are considered with, and not independently of, the information set out in the complete Report. A signed consent is included at Appendix 2.

2.9 Conversions and Abbreviations

A list of conversions and abbreviations used in this report can be seen at Appendix 17.

3 Reliance on Other Experts and Personnel

H&A has relied on input from KSK personnel and reports from previous workers where relaying information relating to:

- the tenure status of the KSK CoW,
- project history and previous exploration and evaluation work,
- geological and mineralization setting and styles,
- the geographical, cultural, social and environmental aspects of the project and,
- source data and information for undertaking the mineral resource estimate.

Where stated in this report, H&A has independently checked the data and details provided by others and comments on the confidence in and reliability of the data, information and facts obtained.

3.1 Limited Disclaimer

The estimate undertaken and opinions expressed by H&A in this report have been based in part on observations made during site visits to the Beruang Kanan Prospect over a 2-day period in September 2014 and a 3-day period in June 2015, together with observations made from data, information and drill core made available to H&A by KSK. The estimate and opinions in this report are provided in response to a specific request from KSK to do so and as per guidelines set out in NI 43-101. H&A has exercised all due care in reviewing the supplied information. Whilst H&A has check supplied data against alternative sources where possible and compared key supplied data with expected values, the accuracy and reliability of the resource estimate, interpretations and opinions are entirely reliant on the accuracy, reliability and completeness of the supplied data. H&A's analysis of data accuracy, reliability and completeness is documented in Section 12.

KSK has represented in writing to H&A that full disclosure has been made of all material information regarding the resources at BKM and that such data and information is current, complete, accurate and true (Appendix 11).

4 Property Description and Location

BKM is located within the PT Kalimantan Surya Kencana Contract of Work area (KSK CoW) in Central Kalimantan, just south of the equator (Figure 1). It is about 190 kilometers north and slightly west of Palangkaraya, the capital city of Central Kalimantan (Figure 2). The BKM project (centred on Long. 113 25 00 E, Lat. 00 37 00 S) is in mountainous jungle terrain at the headwaters of the south flowing Kahayan and Samba rivers in a remote area where no permanent villages exist. The location is isolated and access both to and around the prospect is difficult and imposes certain restrictions on field operations.

Details of the KSK CoW area, tenure, obligations to the Republic of Indonesia Government, environmental permitting and other details relating to the evaluation of mineralisation within the KSK CoW area are described in the following sub-sections.

Figure 1: Location Plan KSK CoW containing the BKM Project. Also showing KSK's parent company (AMR) tenement holding in Eastern Kalimantan.

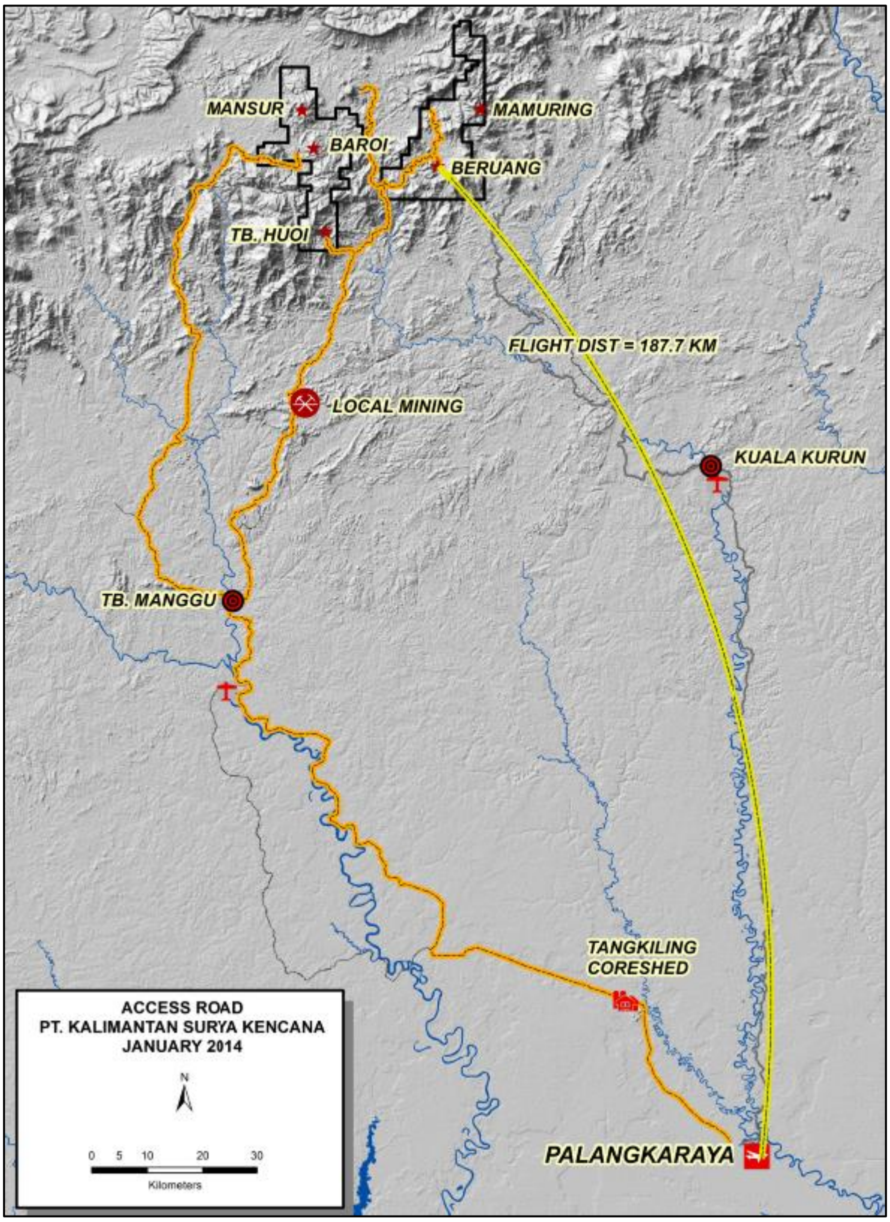

Figure 2: Access to the BKM Project from Palangkaraya, capital of Central Kalimantan Province (refer Figure 1 for location of Palangkaraya).

4.1 Land Use

BKM is located within a production forest reserve. The BKM area has already been logged and KSK was granted permission to work within the forestry reserve over BKM on the 23 April 2015 (permit 29/1/IPPKH/PMDN/2015, Appendix 10).

With regard to areas of the KSK CoW that are under Hutan Lindung (protected forest) KSK, in 2004, were informally told that the KSK CoW predates the 1999 Government of Indonesia Law No. 41 on Forestry which prohibits open pit mining in Hutan Lindung areas. The government confirmed that when the Company's property fits the necessary criteria defined in the Presidential Decree it will be given a permit to exploit that portion of the property within the KSK CoW that fall within the protected forest area (it is unclear to H&A if this permit will include open pit mining, as Law No. 41 states that only underground mining is permitted). Regardless, the BKM prospect is not within a protected forest area and both open pit and underground mining is permitted at BKM and in other areas of production forest reserve within the KSK CoW.

There are no other commercial undertakings covering the BKM area. BKM is located on Government land and there are no local land owners within the project area. KSK has established a cooperative relationship with the people living in the district which has played an integral part in the facilitation of work undertaken to date.

4.2 **Corporate Structure, Tenure and Permitting**

The following outlines the details of the PT Kalimantan Surya Kencana Contract of Work, the history and current status of the tenement and other permits required for exploring the CoW.

4.2.1 Corporate Structure and Ownership of Mining Rights

PT Kalimantan Surya Kencana (KSK, incorporated in Indonesia) is the 100% owner of the 6th generation Contract of Work (KSK CoW) within which BKM is located. KSK in turn is owned 75% by Indokal Limited (incorporated in Hong Kong) and 25% by PT Pancaran Cahaya Kahayan (incorporated in Indonesia). Indokal Limited owns 99% of PT Pancaran Cahaya Kahayan with the remaining 1% owned by Mr. Mansur Geiger (held in trust for Asiamet Resources Limited). The parent company to the corporate structure is a Bermuda company, Asiamet Resources Limited (AMR), formally Kalimantan Gold Corporation Limited, which is a publically listed company on the TSX-V (Canada) and AIM (London) stock exchanges. AMR owns 100% of the shares in Indokal Limited.

The KSK CoW is the subject of an agreement between KSK and the Government of the Republic of Indonesia whereby in the preamble it is stated that the parties:

"Witnesseth that:

A. All Mineral resources contained in the territories of the Republic of Indonesia, including the offshore areas, are the national wealth of the Indonesian Nation;
B. The Government desires to encourage and promote the exploration and development of the Mineral resources of Indonesia. The Government is also desirous of facilitating the development of ore deposits if commercial quantities are found to exist and the operation of Mining enterprises in connection therewith;
C. The Government, through the operation of Mining enterprises, is desirous of creating growth centers for regional development, creating more employment opportunities,

encouraging and developing local business and ensuring that skills, know-how and technology are transferred to Indonesian nationals, acquiring basic data regarding and related to the country's Mineral resources and preserving, and rehabilitating the natural Environment for further development of Indonesia;

D. The Company through Indokal Limited, a Company incorporated in Hong Kong has and has access to the information, knowledge, experience and proven technical and financial capability and other resources to undertake a program of General Survey, Exploration, Feasibility Study, Development, Construction, Mining, Processing and Marketing with respect to the Contract Area, and is ready and willing to proceed thereto under the terms and subject to the conditions set forth in this Agreement;

E. The Government and the Company are willing to cooperate in developing the Mineral resources hereinafter described on the basic provisions hereof and of the laws and regulations of the Republic of Indonesia, specifically Law No. 11 of 1967 on the Basic Provisions of Mining (Undang-Undang Pokok Pertambangan) and Law No. 1 of 1967 on Foreign Capital Investment (Undang- Undang Penanaman Modal Asing) and its amendment Law No. 11 of 1970 and the relevant laws and regulations pertaining thereto.

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions hereinafter set out to be performed and kept by the Parties hereto, and intending to be legally bound hereby, it is stipulated and agreed between the Parties hereto as follows :"

25 Articles and 8 Annexures covering terms of the agreement follow and the headers of these are listed in Table 1.

Table 1: Headers of Articles and Annexures detailing the terms of the KSK CoW

Headers of Articles covered in the KSK CoW							
DEFINITIONS	APPOINTMENT AND RESPONSIBILITY OF THE COMPANY	MODUS OPERANDI	CONTRACT AREA	GENERAL SURVEY PERIOD	EXPLORATION PERIOD	REPORT AND SECURITY DEPOSIT	FEASIBILITY STUDY PERIOD
CONSTRUCTION PERIOD	OPERATING PERIOD	MARKETING	IMPORT AND RE-EXPORT FACILITIES	TAXES AND OTHER FINANCIAL OBLIGATIONS OF THE COMPANY	RECORDS, INSPECTION AND WORK PROGRAM	CURRENCY EXCHANGE	SPECIAL RIGHTS OF THE GOVERNMENT
EMPLOYMENT AND TRAINING OF INDONESIAN NATIONALS	ENABLING PROVISIONS	FORCE MAJEURE	DEFAULT	SETTLEMENT OF DISPUTES	TERMINATION	COOPERATION OF THE PARTIES	PROMOTION OF NATIONAL INTEREST
REGIONAL COOPERATION IN REGARD TO ADDITIONAL	ENVIRONMENTAL MANAGEMENT AND PROTECTION	LOCAL BUSINESS DEVELOPMENT	MISCELLANEOUS PROVISIONS	ASSIGNMENT	FINANCING	TERM	GOVERNING LAW
Headers of Annexures covered in the KSK CoW							
CONTRACT AREA	MAP OF CONTRACT AREA	LIST OF OUT STANDING MINING AUTHORIZATIONS	DEADRENT FOR VARIOUS STAGES OF ACTIVITIES	FEASIBILITY STUDY REPORT	ROYALTY ON MINERAL PRODUCTION	THE IMPLEMENTING OF ROYALTIES	RULES FOR COMPUTATION OF INCOME TAX

The original KSK CoW was signed on the 28^{th} April 1997 for a minimum period of 38 years. It has since become part of an amalgamated title and its history is outlined in Section 4.2.2.

4.2.2 Tenure History and Status

The following outlines the tenure history of the KSK CoW.

PT Kalimantan Surya Kencana held an 80% interest in the now terminated company PT Pancaran Paringa Kalimantan who was the holder of the 4th generation PPK CoW. On August, 16, 1999, by decree of the Government of the Republic of Indonesia, the KSK CoW and nearby PPK CoW were amalgamated into the one holding (KSK CoW, effective date of April 28, 1999). As a result of the amalgamation the KSK CoW comprises two blocks, A and B. Both blocks are now in the fourth year of their Exploration Period (following a granting of two years extension to the exploration period for the block A, PPK CoW area to bring both blocks into alignment regarding status and timing).

On August 24, 2004, 5,100ha was added to the KSK CoW making the maximum holding of the KSK CoW 129,290ha. According to the conditions of the CoW, KSK has since relinquished ~50% of the tenement area in two stages so that the current holding now stands at 61,003ha. The next relinquishment is scheduled to coincide with the completion of the feasibility stage of the tenement. The KSK CoW is currently in the fifth year of its recognized exploration stage (Appendix 10), this is to be followed by a minimum 1 year feasibility stage, an approved construction stage and 30 years of production stage (both the exploration and feasibility stages can be extended by request to the RI Government).

The KSK has signed a non-binding Memorandum of Understanding (MOU) with the Government of the Republic of Indonesia (GOI) covering amendments to its KSK Contract of Work. The CoW system provides security of tenure for a minimum of 38 years of exploration, development and operations and KSK continues discussions with the GOI regarding possible amendments to some of the KSK CoW terms in order to achieve closer alignment with the current Law No. 4/2009.

Following the completion of negotiations, items contained within the MOU will be incorporated as an amendment to the CoW. The Company has formally established with the GOI that its CoW is currently in the 5th year of the Exploration stage commencing on 23 April 2015, the date the Company was granted a forestry permit ("IPPKH") renewal.

Pursuant to the MOU, and subject to final negotiation, agreement has been reached in principle on the following six points:

1. The size of the CoW shall remain unchanged at 61,003 hectares.
2. The MOU contemplates that after 30 years of Operating under the CoW, the Company may apply to continue operations in the form of a Special Mining Business License for a further 2 x 10 year periods.
3. Under the agreed MOU terms the corporate income tax rate will continue to be 30% as prescribed in the CoW but royalties will now follow the provisions of the prevailing law. Gold and copper royalties under the prevailing laws are 3.75% and 4%, respectively.

4. The CoW currently has a provision that requires the Company to work towards, and assist, the Government in supporting the policy of establishing metals processing facilities in Indonesia in relation to smelting and refining. The Company is now under obligation to process and refine the mineral ores domestically in line with the current provisions of the rules of law in Indonesia.
5. The Company's Indonesian subsidiary that holds the CoW is a Foreign Investment Company ("PMA"). Current law mandates that Indonesian Nationals or Companies be offered the opportunity to invest in a PMA Company, the level and timing of divestment being dependent on the type of mining and processing. As an example, the current regulation for a PMA company holding an IUP Production license that is conducting open pit mining and undertaking its own processing and/or refining activities is divestiture of 20% at year 6, 10% in year 10 and a further 10% in year 15, for a total of 40% divestiture over 15 years. The divestiture of shares is to be at fair value and subject to pre-emptive rights allowing holders to maintain relative percentage ownership. Pursuant to the MOU, shares of a PMA, listed on the Indonesia Stock Exchange may be recognized as a 20% Indonesian shareholding.
6. The CoW currently contemplates the priority use of local labor, products and registered mining service companies and the MOU reinforces this requirement.

In 2014 H&A noted that the online Directorate General of Minerals and Coals WEB GIS tenement map showed that the northwest region of the KSK CoW had a conflicting and overlapping boundary with a later granted IUP issued to PT. Persada Makmur Sejahtera. KSK requested and received confirmation from the Ministry that there is no overlapping of the KSK CoW and the PT. Persada Makmur Sejahtera IUP (Appendix 10) and that the WEB GIS was wrong and would be corrected. The correction of the WEB GIS has not yet been undertaken.

4.2.3 Environmental Permitting

Indonesian environmental laws require the preparation of an environmental study for projects requiring an Exploitation Permit (generally undertaken as part of the Feasibility Study). KSK advises H&A that as BKM and the CoW are not in feasibility stage there is no requirement at this stage for KSK to undertake an environmental study.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

Daily air flights connect Jakarta with Palangkaraya, the capital city of Central Kalimantan. Beruang Kanan is eight hours travel by vehicle (approx. 350km), or 50 minutes flying time by helicopter from Palangkaraya. Logging roads provide access into this previously remote area. Access to the project is via foot from the field camp, which is located on its eastern side of the project at the base of the main ridge.

The topography in the Beruang area is very mountainous with the mountains being moderate to very steep. Drainages in the area are dendritic. The area is thickly vegetated and the rugged topography ranges in elevations from 300 meters to about 1,000 meters above sea level. Large drainage systems to the west and east of the BMK area present as potential sites for locating mining infrastructure.

Indonesia has a typically tropical climate with two seasons, wet and dry. In most of the country the dry season occurs from May to October with the wet season occurring in the rest of the year. Humidity is on average a minimum of 60% with an average temperature of 26 to 27 degrees Celsius all year round. Rainfall at BKM is reportedly around 8 meters per annum resulting in frequent and rapid changes to river levels (rises of 2 to 3 meters in river levels are not uncommon). Erosion is rapid, resulting in steep-sided river valleys where landslides are common.

The BKM area has been logged and a lot of the forest now present is regrowth following this activity. Local artesian miners are scattered throughout the region. None are active within the BKM area. Apart from logging roads, the area has little infrastructure.

6 History

The history of the KSK CoW tenure is detailed in Section 4.2.2. The following briefly outlines the operational and exploration history of the KSK CoW and incorporated Beruang Kanan area.

6.1 Operational History

Recorded exploration on the KSK CoW essentially started in 1981 when PT. Pancaran Cahaya Mulia (PCM) and Sinar Enterprises International B.V. intended to explore the area. PCM changed its name to PT. Pancaran Bahagia (PCB) and in the same year hired two expatriate geologists Mansur Geiger and Mathew Mayberry. Mr. Geiger is currently the President Director of KSK and has dedicated his career to the area.

Mr. Geiger and Mr. Mayberry conducted reconnaissance surveys from 1982 until 1985 into the upper Kahayan area. Access to the area in these early days was only by small boat and was very difficult. Mr. Geiger reports it took two weeks to get from Palangkaraya to the Beruang Kanan camp. This period of exploration was undertaken primarily for placer gold.

In 1985, the exploration emphasis changed to looking for hard rock epithermal gold. To finance the exploration, a joint venture was signed with Molopo, an Australian mining company. The vehicle used by Molopo for this joint venture was PT Pancaran Paringa Kalimantan (PPK). The joint venture agreement between PCB and PPK was signed on October 7, 1985. The agreement provided PCB with a 20 percent interest and Paringa Mining and Exploration Company PLC, subsidiary of Molopo with an 80 percent interest in a fourth generation CoW. This CoW was signed between PPK and the Republic of Indonesia on December 2, 1986. The original CoW covered 613,700 hectares but it did not include mining permits (KP's) also held by the joint venture. The original CoW over time was reduced in size to 33,170 hectares and added as Block A to the current KSK CoW. All of the KP's were relinquished.

During the joint venture exploration phase, several areas were recognized as having potential for porphyry copper style mineralization, specifically the Beruang Kanan and Tumbang Huoi prospects. In 1990 the Molopo/PPK joint venture was dissolved.

In 1992, Kalimantan Investment Corporation (KIC) took over field operations from Molopo and PPK. The new company consisted of essentially the same people that formed PCB. During this period (1992-95) the Tumbang Huoi and Mansur prospects were evaluated by IP and diamond drilling.

PT. Cyprus Indonesia signed an option for the Mansur Prospect, which gave Cyprus the option to earn a 67.5 percent interest in the prospect. In December 1996 Cyprus terminated their option.

Kalimantan Gold Corporation Limited (KGCL) was formed during May 1996 and listed on the then Vancouver Stock Exchange. KGCL made application through KSK to the Department of Mines for a 121,900 hectares sixth generation CoW subsequently officially granted on April 28, 1997. The details and history of this current CoW are outlined in Section 4.2.2. On January 14, 2015, KGCL through a private share placement acquired a 40% interest in the Beutong copper-gold project in Sumatra, Indonesia and completed changes to management. On July 24, 2015, KGCL changed its name to Asiamet Resources Limited (ARS) which is listed on both the TSX Venture Exchange in Canada and the AIM in England.

Exploration and evaluation of the KSK CoW has centred on four main areas (Baroi, Beruang Tengah, Beruang Kanan and Mansur) where KSK and two consecutive Joint Venture partners Oxiana Limited and Eksplorasi Nusa Jaya (ENJ) focused on identifying porphyry mineralization at the prospects. During their involvement, ENJ also undertook delineation drilling of the near surface mineralization at BKM. In 2015 KSK continued the delineation drilling of BKM and the ENJ-KSK and KSK drilling data constitutes the majority of the data utilized in preparing the 2015 Resource Estimate for the project.

6.2 Exploration History – Beruang Kanan Main Zone

Detail of the surface exploration activities and results are not included in this report as they have been documented in a report by Munroe and Clayton (2006). The details of the drilling and evaluation activities pertinent to the estimation of resources at BKM are included at Sections 9, 11 and 12.

Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

The following exploration and evaluation of the BKM area has been conducted over the last 18 years:

- 1997 to 2004 - KSK:
  - Field mapping and rock chip sampling
  - Outcrop channel sampling
  - 200m by 50m soil sampling
  - Dipole dipole IP
  - Drilling 17 holes totaling 3,631m
- 2005 to 2007 - Oxiana Limited and KSK JV:
  - Reprocessing of IP data
  - Drilling 5 holes totaling 2,450m
- 2012 to 2013 - ENJ and KSK JV:
  - Aerial magnetic, gravity and LIDAR survey
  - Field mapping and rock chip sampling
  - Drilling 32 holes totaling 11,851m
- 2014:
  - Maiden resource estimate undertaken
- 2015 – KSK
  - Drilling of 71 holes totaling 6,178m
  - Resource estimate update

KSK continue to advance the BKM project. A Preliminary Economic Assessment (PEA) is currently underway and scheduled for completion Q1 2016.

7 Geological Setting and Mineralisation Styles at Beruang Kanan Main Zone

The following details the current understanding of the regional geology and the geological setting and mineralisation styles of the Beruang Kanan Main Zone.

7.1 Regional Setting

The KSK CoW is situated within a mid-Tertiary age magmatic arc (Carlile and Mitchell, 1994) that hosts a number of epithermal gold deposits (e.g., Kelian, Indon, Muro) and significant prospects such as Muyup, Masupa Ria, Gunung Mas and Mirah (Figure 3).

Copper-gold mineralization (may be porphyry) in the KSK CoW is associated with a number of intrusions that have been emplaced at shallow crustal levels at the junction between Mesozoic metamorphic rocks to the south and accreted Lower Tertiary sediments to the north. These intrusions are interpreted to be part of the Oligocene Central Kalimantan arc of Carlile and Mitchell

(1994) (Figure 3). Older intrusions, and associated volcanic and volcaniclastic rocks, of probably Cretaceous age also outcrop along this contact (Carlile and Mitchell, 1994).

Structures in the region are dominated by a northeast striking set of faults that are interpreted to be features of the Kalimantan Suture (van Leeuwen et al., 1990) and are probably arc parallel, or accretionary, faults. Subsidiary northwest trending arc normal, or transfer faults cross-cut the northeast structures. The mid-Tertiary intrusions have commonly been emplaced within dilational settings at the intersection of these major structural features. The major gold prospects and deposits in Kalimantan are also localized in a similar structural setting (Corbett and Leach, 1998). The shallow level intrusions are apparent as major anomalies on aero magnetic survey data.

Large circular features, that are evident on satellite, landsat, radar, and aerial photo images commonly coincide with the mid-Tertiary intrusions and associated magnetic high anomalies. These circular structures are interpreted to be volcanic collapse features and they host many of the porphyry copper-gold prospects within the KSK CoW. To date, more than 38 porphyry and porphyry-related copper and/or gold prospects have been defined in the KSK CoW, and only a few of these, namely the Baroi, Mansur and Beruang prospects have undergone any detailed exploration.

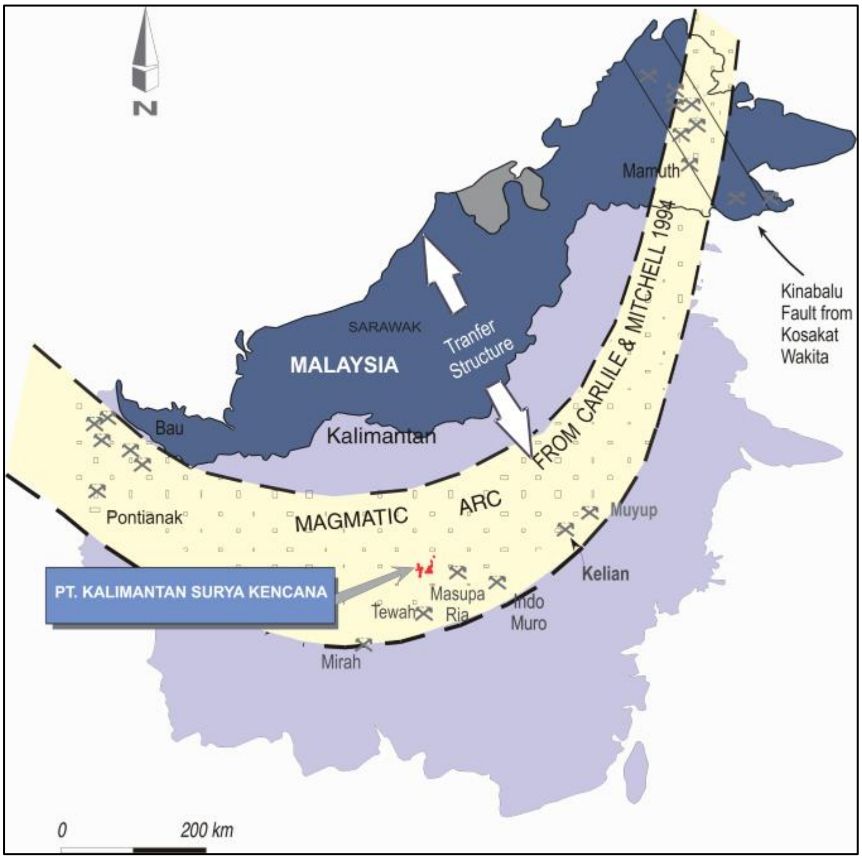

Figure 3: Location of significant mineralization within the Central Kalimantan Island Arc (after Carlile and Mitchell, 1994)

7.2 Beruang Kanan Geology and Mineralisation

The following description is taken from a KSK internal report "EXPLORATION SUMMARY REPORT, 1997 through 2007", author not stated. The report lists a comprehensive reference list containing reports by consultants and KSK personnel who have worked and reported on the BKM prospect.

The Beruang Kanan prospect is defined by a 16km^2 zone of propylitic, local phyllic, and rare advanced argillic altered sequence of dacitic tuffs and sediments returning greater than 200ppm Cu in soils. It is situated in the Central Eastern portion of the KSK CoW (Figure 26).

The Beruang Kanan mineralization is hosted in a sequence of dacite tuff of probable Oligocene age that overlie lower Tertiary volcaniclastic siltstone and sandstones in the eastern prospect area. Pre-mineral Sintang dacite porphyry intrusions of probable Oligocene age, and post-mineral (may be Miocene) andesite, dacite to basalt-gabbro dykes are intruded into the tuffs and sediments.

Geological, geochemical (soil, ridge and spur, auger and rock chip) and geophysical (IP and ground magnetics) surveys delineate three centres of possible porphyry-style alteration and mineralization; the Main, South and West Zones (Figure 4). These are:

- The South Zone; consisting of a 1km northeast striking zone of quartz-sulphide stockwork veining with anomalous gold, molybdenum and copper soil geochemistry.
- The Central Zone; consisting of locally intense sericite-quartz-pyrite alteration, stockwork quartz + sulphide veins, weak anomalous Au-Mo in soils and a deep IP anomaly. A broad outer halo of anomalous copper-zinc-arsenic-antimony in soils is hosted in intensely chlorite-pyrite altered tuff. Sporadic quartz- pyrite-chalcopyrite (with minute native gold inclusions) veins cut the chloritised tuff.
- The West Zone; defined by scattered zones of phyllic alteration and anomalous copper and base metal geochemistry which suggest that in the West Zone the system is less well defined.

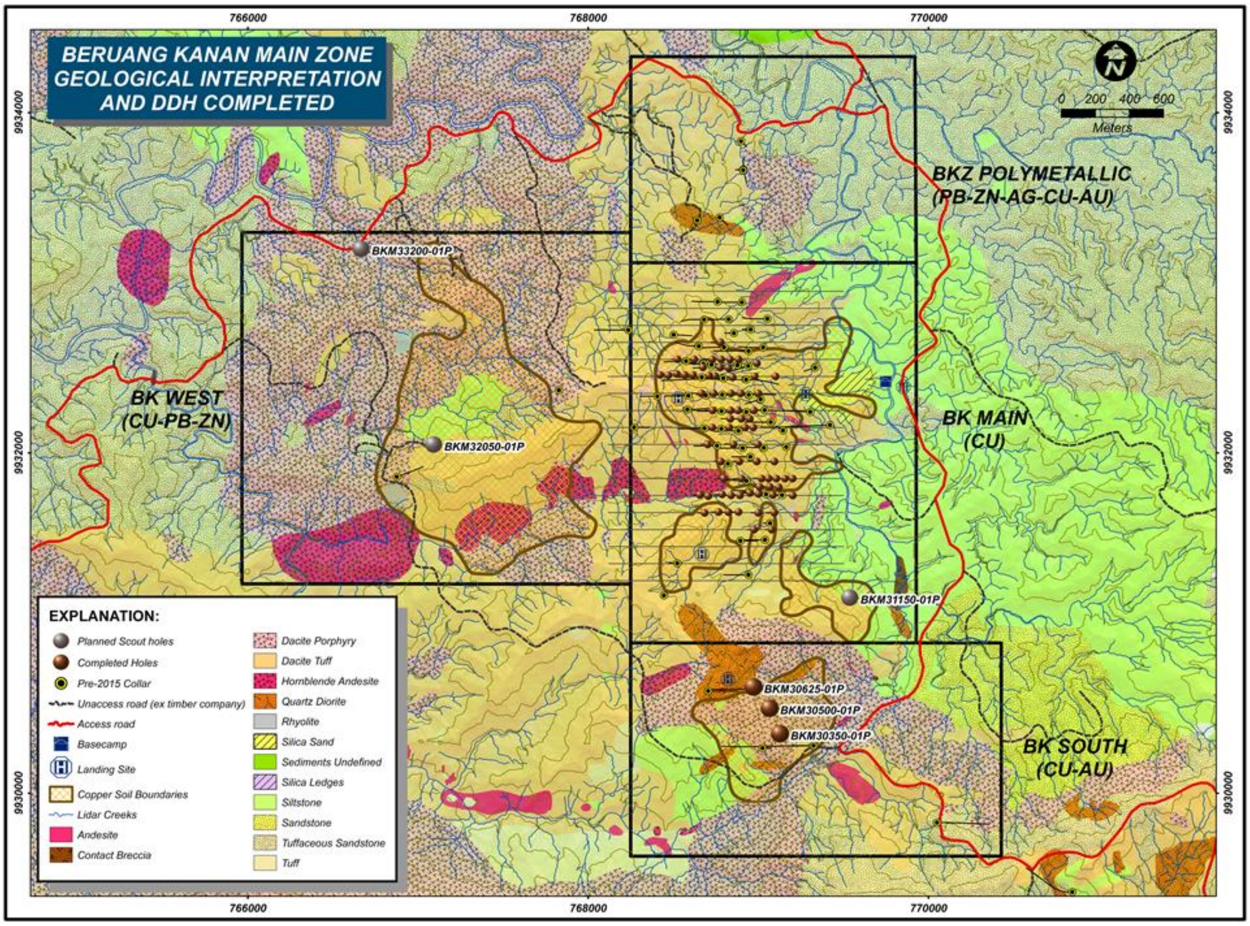

Figure 4: Prospects within the Beruang Kanan area. This resource estimate reports the estimated mineralization within the Beruang Kanan Main Zone.

Exploration activity to date at Beruang Kanan has been focused on the Main zone (the subject of this resource estimate), that is defined by a north-south elongate, 1.0km by 1.5km area of anomalous copper (>0.1% in rock chips) ± gold-molybdenum geochemistry, high chargeability, and by intense phyllic alteration. The phyllic alteration is capped at high elevations on the western margin of the Main zone by advanced argillic alteration. The alteration and mineralization are hosted almost entirely in dacite tuff and are cut by post-mineral dacite dykes. These dykes defined by ground magnetics, are up to 100-200m wide, and radiate northwest and west through the prospect area. Copper-gold-molybdenum in soils are aligned northeast within the Main Zone.

Zinc, and to a lesser extent lead, form broad anomalous geochemical halos around the Main Zone, and massive northeast trending zone of polymetallic mineralization outcrop to the north and south of the Main zone. Limited drilling into the zones to the north intersected intervals of up to 16m @ 2.8%Pb, 5.8%Zn, 58 g/t Ag, 0.65 g/t Au and 0.17% Cu (BKZ-1) associated with quartz-chlorite-illite alteration. Base metal sulphide (sphalerite, galena, tennantite, and chalcopyrite-bornite) mineralization occurs as wallrock disseminated grains, in shear zones and as sheeted veins.

In the Main Zone, drilling has intersected a north-northwest trending zone of intensely sheared and silicified, highly pyritic, zoned phyllic to advanced argillic altered rock. This zone was found to host copper grades of up to 167m @ 0.59% Cu.

Early quartz veins, that are commonly recrystallised and strained, contain rare anhydrite and apatite inclusions and are locally cut by thin anhydrite veinlets. Subsequent shearing of the quartz veins was accompanied by wallrock alteration and vein deposition of mineral assemblages that are zoned temporally from early advanced argillic, through intermediate phyllic to late stage argillic and sub-propylitic.

The alteration assemblages and associated mineralization are also spatially zoned. From deeper levels in drillholes to the south-east to shallow levels in drillholes to the northwest the zoning is: chlorite + pyrite + chalcopyrite ^ sericite + pyrite + chalcopyrite ± bornite ± sphalerite ± galena ^ dickite/kaolinite + pyrite + bornite + chalcopyrite + tennantite ^ alunite + pyrite ± barite ± enargite. This zonation indicates progressive oxidation and decrease in fluid pH as the hydrothermal fluids migrated to cooler and shallow levels northeastward from a source inferred to lie at depth to the south-east. Supergene chalcocite and covellite overgrow and replace many of the primary sulphides and account for much of the copper mineralization at shallow levels.

8 Deposit Type

The deposit type and structural controls on mineralization and discussion on deposit type can be found at Sections 12.1.3 and 12.2.1 and follows direct investigations of copper grade and core photography relogging undertaken as part of the work to model and estimate the resources at the BKM prospect.

9 Exploration

Detail of the surface exploration activities and results are not included in this report as they have been documented in a report by Munroe and Clayton (2006). A brief outline of these activities are listed at Section 6.2.

The details of the drilling and evaluation activities pertinent to the estimation of resources at BKM are included at Sections 9, 11 and 12.

10 Drilling and Primary Sampling

The BKM prospect has been a focus of copper exploration in the KSK CoW for 18 years, being the subject of drilling for KSK and joint venture partners in seven distinct programmes (Table 2). Prior to 2015, KSK and Oxiana Limited (in Joint Venture with KSK) undertook shallow to moderate depth exploration drilling (max ~600m) and identified that a near surface body of mineralization could exist at BKM. ENJ (in Joint Venture with KSK) undertook definition (delineation) drilling of this mineralization and drilled three deep holes (>1000m) into BKM. Moderate and deep holes drilled by Oxiana and ENJ were targeted to test for porphyry style mineralization at BKM. In 2015 KSK drilled 71 holes into and peripheral to the mineralised zones to better define and understand the copper mineralisation at BKM. The 2015 KSK and historic drilling underpin the 2015 resource estimate. The quality assurance and quality control practices attached to the 2015 drilling has enabled the evaluation of and improved understanding of risks to the project (as identified in 2014) which in turn has improved confidence in and an upgrade of areas within the resource. A list of significant intercepts is included at Appendix 7.

All holes were drilled utilizing diamond drill rigs. The historic holes typically started at PQ or HQ core sizes, reducing to NQ and BQ when required due to drilling conditions and rig capabilities. The 2015 holes were drilled with HQ triple tube running gear and 1.5m core barrels. A list of core diameters through the significant mineralized intercepts is presented at Table 3. 73% of the mineralization has been sampled with HQ core. Shallower mineralization has been intercepted with PQ and HQ core while deeper mineralization intercepted with NQ and BQ core. The differences in average Cu grades reported in Table 3 could be attributed to grade tenor changes with depth or to the effect of the fundamental sampling error. No work has been undertaken to identify the reason for the grade differential between drill core sizes.

Table 2: Diamond Drilling within Beruang Kanan Prospect Area (includes redrills and 20 holes located at adjacent prospects). The BKM 2015 Resource Estimate is centred on the Main Zone mineralization.

Program	AREA	Drill Corp	Rig	Start Date	End Date	Number of Holes	Average Depth	Total Metres
KSK Phase I	**Main Zone**	**R&B**	**R&B Rig**	**13-Jan-98**	**29-Apr-98**	**10**	**192**	**1921**
KSK North Poly	**North Polymetallic**	**R&B**	**R&B Rig**	**6-May-99**	**2-Jul-99**	**6**	**145**	**871**
KSK Phase II	Main Zone	R&B	R&B Rig	14-Apr-01	4-Aug-01	7	244	1710
	South Zone	R&B	R&B Rig	13-Mar-01	29-Mar-01	2	129	258
	KSK Phase II Total			**13-Mar-01**	**4-Aug-01**	**9**	**219**	**1967**
JV Oxiana	Main Zone	ANTERO	AD1000/AD500	25-Apr-07	18-Jul-07	5	490	2450
	South Zone	ANTERO	AD500	26-Jun-07	19-Jul-07	2	349	698
		KSK RIG	Rig34	21-Apr-07	14-Aug-07	2	227	455
	West Zone	ANTERO	AD500	22-Jul-07	8-Apr-07	1	279	279
	JV Oxiana Total			**21-Apr-07**	**14-Aug-07**	**10**	**388**	**3882**
Definition - KSK-ENJ	Main Zone	KSK RIG	Jackro-MJT240/Rig34	3-Jul-12	15-Jul-13	29	300	8696
	South Zone	KSK RIG	Jackro MJT240	14-Apr-13	13-May-13	2	300	600
Definition Drilling - KSK	Main Zone	DBM RIG	DBM240	18-Jul-15	19-Sep-15	16	106	1695
		KSK RIG	Jackro MJT240	12-May-15	18-Sep-15	24	86	2070
	South Zone	DBM RIG	DBM240	7-Jul-15	17-Jul-15	4	82	326
		KSK RIG	Rig34	21-May-15	4-Sep-15	27	78	2096
	Definition Total			**3-Jul-12**	**19-Sep-15**	**102**	**152**	**15483**
Deep - KSK-ENJ	Low Zone	KSK RIG	AID350	3-Jun-13	10-Jul-13	2	601	1203
	Main Zone	PONTIL	Duralite#2	7-Jun-12	27-Jan-13	3	1052	3155
	South Zone	PONTIL	Duralite#2/LF130#2	12-Aug-12	7-May-13	3	826	2478
	Deep Total			**7-Jun-12**	**10-Jul-13**	**8**	**854**	**6836**
Grand Total				**13-Jan-98**	**19-Sep-15**	**145**	**214**	**30960**

Table 3: Core sizes through mineralized intercepts.

Core Size	Number of Intervals	Length (m)	Av. Depth (m)	Av. Cu Grade (ppm)
PQ	61	117	13	8934
HQ	2210	3245	47	8080
NQ	279	815	119	5279
BQ	34	95	202	6980
Historic/Unknown	66	179	129	6147
Total	**2650**	**4451**	**65**	**7743**

Sample lengths are listed at Table 4. These lengths have been employed by all workers and for all core sizes. 46% of the samples within the mineralised domains are ≥2.0m (with 24% being ≥3.0m). Half core sampling was employed, generating the following nominal samples sizes for these long interval:

- PQ: 22kg

- HQ: 12kg
- NQ: 7kg
- BQ: 4kg

There is no experimental data available to assess the suitability of sample sizes wrt the fundamental sampling error (considers the in situ heterogeneity of the mineralization) or if the sample reduction strategy employed is appropriate. The generalised sample mass nomogram proposed by Gy shows that crushing to 1.5mm is the maximum particle size recommended for reduction to a 1kg sub-sample mass to ensure that sample comminution strategies remain in the safe zone (for unknown material). Historic workers at BKM have reduced to 1kg at -4mm crush size (Gy's standard nomogram recommends reducing to 5kg at this crush size) and the KSK 2015 programme reduces to 1kg at -2mm crush size (Gy's standard nomogram recommends reducing to 1.5kg at this crush size).

The effect of this significant deviation from recommended comminution strategies cannot be determined from the current dataset. Two opposing observations can be made of the sub-sampling strategy:

- The first is that the copper mineralisation, being vein hosted, can be considered to have properties not dissimilar to gold, i.e. nuggetty in nature. If this is the case then crush or grind sizes must be small to maximize sample homogeneity before sub-sampling is undertaken. *[NB. The suspected inappropriately small primary sample size of NQ and BQ core may be the reason that the average copper grades of the small samples is lower than the average grade of the larger samples (HQ and PQ core).]*
- The second is that the uniform copper grades within the dataset suggests that BKM mineralisation is adequately homogeneous when crushed to -4mm for sub-sampling to 1kg sample mass. Twin holes, core and crusher duplicate samples are required to verify if this is the case. Coarse Crush and split duplicates from the KSK 2015 programme on the whole support that -2mm comminution particle size is acceptable for the BKM mineralisation, however reproducibility of copper assays between duplicate pairs deteriorated in the latter part of the programme (see Section 12.2.3.2 where observations and possible reasons for this phenomena are discussed).

H&A cannot discern the effect on sample reliability or risk to the resource estimate related to the sampling and sub-sampling procedures employed for the BKM mineralisation and this unknown is a consideration to be factored into the classification of the BKM 2015 Resource Estimate.

Table 4: Sample lengths. These intervals have been employed regardless of drill core size. The most common sample length in mineralisation is 1m (52% of dataset) with 2m and 3m forming 24% and 24% respectively.

Domain	Sample Length (m)	Count
Mineralised	<1.0	13
	1.0	1380
	1 to 1.5	91
	1.5 to 1.99	30
	2	466
	2.01 to 2.5	56
	2.5 to 2.99	49
	3	563
	3.01 to 3.5	93
	>3.5	3
Mineralised Total		**2744**
Non-Mineralised	<1.0	17
	1.0	826
	1 to 1.5	319
	1.5 to 1.99	177
	2	2234
	2.01 to 2.5	618
	2.5 to 2.99	492
	3	3797
	3.01 to 3.5	873
	>3.5	34
Non-Mineralised Total		**9387**
Total BK Samples		**12131**

11 Sample Preparation, Analyses and Security

11.1 Pre 2015

Detailed documentation on security, sampling and core yard procedures specific to the pre-2015 drilling at BKM is non-existent.

Descriptions of work by KSK have been reported by Geiger and Prasetyo (2004). Although this report focusses on activities at the Baroi Project, it is reasonable to assume that similar procedures were undertaken at BKM where drilling was undertaken during the same time period. Geiger and Presetyo report:

> "The Company's diamond drill programs are designed by and implemented under the supervision of Mansur Geiger, Vice President Exploration and Didik Prasetyo, Senior Project Geologist.

The drill core is lifted from the drill and placed into a core box, which is 1m in length and usually has 5 divisions across. Core boxes are marked with the drill hole number, box number, and the top and bottom of each box is clearly marked. A wooden marker is placed at the end of each drill run with the depth to the bottom of each drill run marked on the divider. Drill runs are laid into the core boxes in consecutive order running from top to bottom. Drill cores are recorded in a drill log detailing:

- the hole number,
- depth from, to, and length of each drill run in meters,
- % recovery per drill run and relevant notes, and
- measurements are taken as the cores are laid into the core sample boxes.

Completed core boxes are kept at the drill site until moved, usually two at a time, to the central drill core logging area.

Once at the central drill core logging area, the core boxes for each hole are laid out and drill log cover sheets are prepared for each hole under the supervision of the senior geologist. A check is made that the hole was drilled in accordance with the drill plan and that the driller's information is correct. The drill log cover sheet is then completed detailing:

- hole number,
- location, coordinates, bearing, inclination, and total depth,
- date commenced and completed,
- % recovery,
- drilling supervisor,
- core size, and
- signature of person completing the log.

The senior geologist carries out a detailed geological analysis of each drill run at various depths, usually where a geological change has occurred, and completes a detailed drill core log sheet. The detailed log is a structured, hand-written analysis of each hole covering lithology, alteration and mineralization, with a detailed description of drill cores at various depths.

The drill core is marked as to exactly where sections of the drill core are to be cut based on mineralogy and geological composition. Selected drill core sections are then dissected with a one-half section of the drill core placed/swept into a plastic bag. The other half is placed back into the core box. The hole number and depths from/to are written in indelible ink on both sides of the plastic bags. In addition, an aluminum tag with both the hole number and depths is placed inside each bag. The plastic bags are then sealed by wrapping masking tape completely around the bag with the hole number and the depths written again on the masking tape.

The cut drill core samples that have been placed back into the core boxes are re-analyzed for any further relevant geological information and the detailed log is updated.

The completed drill log cover sheets and detailed drill core log sheets are sent to the KSK office for entry into the drilling database. All details of the core sample from each hole are entered into the drilling database maintained at the KSK office in Palangkaraya. A drill hole summary report is produced for each hole from the drilling database for the Vice President Exploration.

Under the supervision of the senior project geologist, approximately four of the bound plastic core sample bags from the same hole are placed into a larger sample bag and tied with string at the top. The larger sample bag is then marked clearly with the word 'SAMPLE' on the front and back. A detailed list of the core samples in each bag is produced at the drill site, a copy of which is kept with each bag.

The large sample bags are then transported to the KSK office in Palangkaraya by boat/road or helicopter. Each sample bag received remains sealed and is checked against the accompanying detailed list prepared at the drill site and is inspected for damage under the supervision of the senior office geologist. The contents of any damaged bag is packed into a new bag and labeled. Smashed bags are rejected and not sent to the laboratory for assay.

The core sample bags are packed into a new sack and an assay sample dispatch sheet pre-printed by the assay company, PT Indoassay Laboratories in Balikpapan, is prepared. The assay sample dispatch sheet includes all sample numbers, with hole numbers and depths, sample type and elements to be recorded. The core sample bags are then sent by commercial courier to PT Indoassay Laboratories together with the original assay sample dispatch sheet, copies of which are kept in data and geological files.

When the core samples and accompanying dispatch sheets are delivered, PT Indoassay Laboratories confirms receipt to the KSK office. They produce pulp and residue from each core sample bag and 50 grams of pulp is used to conduct assay analysis. The results of the assay from each sample are sent to the KSK office by email and then in hardcopy via courier, and are entered into the mining database. Results include the hole number, starting depth, ending depth, total length and percentages of various minerals in each sample.

Residue for each sample is placed into a new plastic bag by the laboratory and labeled with reference numbers.

Pulp is placed in an envelope and labeled accordingly. The residue bags and pulp samples are then sent back to the KSK office by commercial courier. These are stored in a secure archival building in Palangkaraya, away from the KSK office."

There is no record of how Oxiana Limited core was handled during their involvement at BKM.

Details of core handling and sampling undertaken by ENJ during their involvement at BKM is recorded in an internal document "Sample Preparation and Assay Quality Control report, 30 January 2014" (Appendix 3), which describes the following activities:

> "This report address the assay quality collected from the diamond drill core and geochemical samples during the Exploration program starting May 2012 to December 2013 at PT KSK CoW area at Kalimantan Tengah, Indonesia.
>
> Geoassay Laboratory was chose to give its services for sample preparation and assaying. The sample preparation established at Tengkiling at about 35 km from PT ENJ and PT KSK main office at Palangkaraya.
>
> The total amount of 18,522 samples consisted of 10,852 drill core and 7,670 geochem samples were sent to laboratory for prep and analysis.
>
> The preparation and assay procedures utilized by Geoassay follow the Standard Operating Procedures (SOP) developed by PT ENJ and Geoassay to suite the conditions and criteria required for KSK samples.
>
> All the drill core and geochem samples from work site are transported from Marinyuoi to Tengkiling. The arrival of samples at Tengkiling is confirmed with paperwork transfer. Trips between the Marinyuoi core handling facility and sample preparation area generally occur about 2 times per week. Upon arrival at Tengkiling, containers are unpacked and checked against the shipping orders from Marinyuoi. A sequential KSK job number is assigned and written on a laboratory worksheet and the ENJ transmittal form.
>
> The core is marked for sawing to split for assay and storage. The core is split longitudinally with a core saw. Conventional splitters are also available for small diameter core. Half of the core is returned to the core box after splitting and the other half is bagged and numbered for sample preparation processing by GeoAssay personnel in the building adjacent to PT KSK's core shed. The samples are then processed and finally placed into kraft paper bag and shipped to the GeoAssay Analytical Laboratory in Cikarang, Jakarta (GA) for assaying. Transmittal and assay instruction forms accompany the sample shipment to GA.
>
> The sample preparation work effective started on July 3, 2012 according to the following procedures:
>
> 1. The samples are weighed before drying in an oven for a maximum of 8 hours at 105°C. Samples weights are also taken after drying and recorded on the transmittal sheet.
> 2. The entire sample (half core) is placed into a jaw crusher; the output is crushed to between -8mm and -10mm. All the crushed material is then fed to the Boyd RSD Combination crusher and splitter with nominal output size of –4mm.

3. The rotary splitter opening is set to get about a 1 kilogram sample. This 1 kilogram sample is directly output from the Boyd Crusher to the LM2 pulveriser to pulverize. The rest of the material reports to coarse reject.
4. Additional reject splits are retained for future metallurgical work and for duplicate coarse reject analysis. Roughly 1 in 25 of the duplicate coarse reject (DR) samples are prepared and assayed as a check on the pulp preparation process. As well, 1 in 25 coarse reject samples are also screen analyzed to confirm the comminution size of 95% passing 4mm is achieved.
5. Approximately 1000g of the primary split is pulverized to produce a 95% passing 200 mesh pulp. One out of every 25 pulps is wet screened to monitor the comminution of -200 mesh pulp size. This sample also forms the Duplicate Assay sample (DA) which is separately assayed for QC purposes.
6. After pulverizing, the 1000g sample is mat rolled then split into 4 components using a spoon. The entire pulped sample is divided and placed into 4 kraft paper pulp bags.

One of the pulp bags is sent out for analysis to Geoassay right away. The remaining three pulp bag are individually sealed then placed into zip lock plastic bags and submitted to ENJ. This will be used for assay check programmes with the frequency 1 in 20. Check assay pulps are sent out for analysis to Intertek and Sucofinfo.

Following the Standard Operating Procedures (SOP) document, CRM Standards are inserted on a 1 in 20 basis and one blank is inserted per batch.

Assay instructions are supplied to GeoAssay electronically by PT ENJ personnel. GeoAssay labs use Inductively Coupled Plasma (ICP) Optical Emission Spectrometer (OES) methodology for determining the base metal content. Assay requests are complete ICP-OES packages (36 elements) with three acid digest from a 0.5g pulp sample (aliquot). If the result of that method reports greater than 10.0% copper, the assay is rerun as an "ore grade" sample where a 1.0g sample is digested with three acids and followed with flame AA."

The core handling, sampling and sample reduction protocols as described appear suitable for preparation of BKM material for assay. The procedure where ENJ mat-rolls and divides the pulverized material to generate 4 pulps from each sample by spooning into paper bags would appear to be poor practice, however the acceptable duplicate pulp and inter-laboratory check copper assay indicates that this practice has not adversely affected the sample reliability.

Evaluation and interpretation of the sampling suitability and assay reliability (quality control evaluation, assessment of copper grade against sampling interval lengths and recovery etc) is included along with the assessment of all datasets utilized in the resource estimate in Section 12.

11.2 **2015**

KSK undertook the 2015 drilling following protocols setout in the following SOPs and the June 27, 2015 revision:

- KSK_SOP_002_2015.01.14_Chain_of_Custody_Doccumentation_FINAL.doc
- KSK_SOP_004_2015.01.14_Core Pickup, Handling and Processing - FINAL.doc
- SOP Revision By Duncan Hackman_20150627.docx

Chain of custody documentation is available for all holes drilled in 2015. They revolve around establishing responsible persons for sections of work and signing-off on the completion and verification of this work. They also record the transferal of the responsibility for core, samples and data through the employ of hand-over signatures. Chain of custody documentation is available for the following activities undertaken during the 2015 drilling programme:

- Drill surveys
- Core pick-up at rig
- Core received at camp
- Core photos
- Core logging
- Core geotech-logging
- Core data collection
- Core sampling
- Core sample transport record
- Data entry checklist
- Core summary log
- Core processing finalization checklist

The standard operating procedures document is presented as a flow chart centred on photographs depicting the activities employed to process core and samples (Appendix 12). Although not detailed in their description the procedures (including the H&A changes) are considered appropriate for the processing of the BKM core and samples. H&A observed that the protocols being followed at site were in line with those in the document "Kalimantan Surya Kencana – Core Handling Procedure : Drill Site – Core Shed - Processing". H&A implemented minor changes to protocols in undertaking the following activities (refer details in document "SOP REVISION BY DUNCAN HACKMAN, 27 June 2015. PT. KSK, BERUANG KANAN PROJECT"):

- Specific Gravity (six points)
- Down-hole survey intervals (two points)
- QA/QC for down-hole survey camera tool (four points)
- Drilling and core logging of veining (three points)
- Sampling (three points)
- RQD (two points)

- Core Photo (two points)

  These changes have added further quality assurance and quality control features to the protocols.

Then onsite processing workflow is as follows:

- Core is packed and carried by hand from drill sites to the core processing facility at camp (located to the east of the BKM mineralisation).
- Core blocks and tray details are checked and hole depth details recorded on core.
- Core trays are weighed and photographed wet.
- Geotechnical and geological logging undertaken
- Geologist selects segments of core for SG determination, which is undertaken by core yard technicians.
- Sample intervals are determined by geologists and core is split longitudinally by core saw. Clayey and incompetent core is wrapped in glad-wrap and packing tape prior to cutting.
- CRM Standards, coarse blanks (granite), pulp blanks and coarse crush duplicates are inserted into sample sequence (coarse crush duplicates are genereated at ITS during sample preparation, empty, numbered bags are included within the sampling sequence in preparation for their creation).
- Core and QC samples are bagged and tagged for transport to ITS Jakarta.
- Dispatch paperwork is prepared for ITS which includes the list of coarse crush duplicates to be prepared and samples where SG segments require drying separately and recombined with the remaining material before crushing).
- Half core in trays is photographed both wet and dry.
- Core block details inscribed onto aluminum tags which are then attached back onto core blocks. Tray details are engraved onto trays before being packed and transported by light vehicle to the Tengkiling core shed for rack storing under cover.

KSK employs the use of numbered, tamper-proof zip ties to seal sample bags being transported off-site.

Details of sample preparation and analysis and QC insertion rates are included in Section 12.2.3.2.

12 Resource Data, Description, Verification and Evaluation

Table 5 lists the files and data supplied to H&A that underpins the BKM resource estimate. Table 6 lists the files generated by H&A in undertaking the resource estimate. Table 14 and Table 15 list intervals where the laboratory assay files were not supplied to H&A and Table 7 lists the photos not supplied. In addition there is no assay quality control data or reports for the early KSK drilling (pre 2002), no protocol documentation for the early KSK and OX-KSK drilling programmes and no core photos for the early KSK drilling.

Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

H&A is satisfied that the files/data and information supplied by KSK is sufficient and suitable for producing a resource estimate on the mineralization at BKM and for evaluating the risk inherent in the estimate and reporting findings following the guidelines set out under the Canadian NI 43-101. KSK has provided written assurance that the data supplied is current, complete, accurate and true and that they have disclosed all data and information material for the assessment of the resources at BKM (Appendix 11).

Table 5: Files supplied to H&A by KSK and utilized in undertaking the 2015 BKM Resource Estimate and NI 43-101 report.

File	Description	Use
Ass.csv; Coll.csv; Surv.csv	2014 resource data (74 Drillhole collar, survey and assay data. DHs within BK)	historic hole assay data for estimate (2015 hole data appended to these files)
Coll2015_final_check_20151013.xlsm Surveys_20151005.xlsm QC_Analysis_V2-11.xlsm	2015 Drillhole collar, survey and assay data. 71 holes. Compiled and cross-checked from individual excel files and sheets transferred from site	drill hole display, update 2014 domaining and grade interpolation. 2015 assay QC evaluation.
2015.10.13_KSK_DB.accdb	KSK compiled dataset	cross-check 2015 dataset against H&A compiled dataset
52 files: [*Creation Date*]_List Sample Dispatch_BKM00[03-12, 15-26, 28-57].xls	KSK sampling sheets for 71 holes drilled in 2015	generating resource dataset and QC evaluation data
526 files: [*Hole_Name*]_Data Entry_[*Geo Logging Sheets_New/MagSus/Photography and Weight_NEW/RQD/Sample Number and Recovery/SG Sample*].xls	KSK 2015 drillholes - Lithology, Alteration, Structure, vein and non-vein mineralisation, SG, Core Diameter	drill hole display, domaining and mineralisation setting interpretation, tonnage factor determination, investigation into fundamental sampling error affect
DTM-BK-Lidar_A.00t; DTM-BK-Lidar_B.00t; DTM-BK-Lidar_C.00t	Vulcan 3D TIN Topo Surface	drill hole collar location validation, resource domaining
119 x [*ITS Lab Job No*].xls	Intertek Utama Services Laboratory Assay Report files (assays, drying weights and Lab QC results (including ".01" and "D" reissue files))	construct 2015 Assay and QC dataset
072[581,781,838,936].csv; 073[520,741].csv	DHs KBK-00[19-22,24] Laboratory Assay Report files	Validation of Cu assay data - Lab Duplicate and Repeat Assay analysis
150269.xls 150424.xls CIK.MIN.06503.xls	ITS and GeoAssay Laboratory Assay QC Report files	Determination of Coarse Blank Assay Values and umpire lab assay results
20140604_bk_geo_interp_with_silica ledges_no_ddh.png	interpretation map	domaining
20140827_bk_rock_geo_alt.csv	Rock Chip Sample data	domaining
20140827_bk_so_ctr.DXF	Cu soils contours	domaining
KSK Sample Prep and Assay QC Final Report Jan2014.docx	ENJ-KSK drill sample assay QC report	Assay QC analysis
oxiana qaqc 2007.pdf	OX-KSK drill sample assay QC report	Assay QC analysis
Beruang LeachReportRecomendations.doc; All Beruang Summary Drill Holes.doc; Beruang Report - Dave Howard.pdf; Report_Central BK 17July-3Aug_2012_TP96.pdf; P_Pollard_KSK copper review.pdf; Bob_BurkeKGC REPORT.pdf; MG_Report_43-101_Appraisal_2004.docx; 43-101 Appraisal Report.pdf; Kalimantan Gold_Technical Report_150606.pdf	Reports on BK by Historic Authors	Project Familiarisation and NI43-101 Report Compilation
KSK_CoW[1].pdf	KSK CoW agreement between KSK and Gov. RI	Reference - Terms and Conditions
1453 x core photo files (*.jpg)	2015 KSK drilling core photo files	mineralisation setting investigation, resource domaining - assay and DBD validation and verification

Table 6: Files generated by H&A and used in undertaking the BKM 2015 Resource Estimate.

File	Description	Use
29_060_Solid_min_6.00t; 29_060_Solid_min_7.00t; 29_060_Solid_min_22.00t; 29_060_Solid_min_23.00t; 29_060_Solid_min_24.00t 36_095_Solid_min_8.00t; 36_095_Solid_min_9.00t; 36_095_Solid_min_10.00t; 40_025_Solid_min_16.00t; 40_025_Solid_min_17.00t; 40_025_Solid_min_18.00t; 22_017_Solid_min_11.00t; 22_017_Solid_min_12.00t; 22_017_Solid_min_13.00t; 22_017_Solid_min_14.00t; 22_017_Solid_min_15.00t; 22_030_Solid_min_25.00t 22_030_Solid_min_19.00t; 22_030_Solid_min_20.00t; 22_030_Solid_min_21.00t; 29_060_Solid_min_1.00t; 29_060_Solid_min_2.00t; 29_060_Solid_min_3.00t; 29_060_Solid_min_4.00t; 29_060_Solid_min_5.00t	Grade interpolation domains (nominally >2000ppm Cu)	Cu resource estimate grade interpolation
base_2-70_DBD_2015.00t	topo surface transposed -17m	to assign Tonnage Factors
Indicated_combined.00t	increased drill density and mineralisation thickness	to assign Indicated Classification
71 x [*hole name*].xlsm	core photo compilation files	verification of assay geology and DBD data
QC_Analysis_V2-11.xlsm	Compiled Assay and QC data	Resource and QC datasets
bkcu_3m.map	3m composited Cu assay data	Cu resource estimate grade interpolation
BM_Create.bdf; bkcuID2OK.bef	Vulcan Definition Files	Generate Cu resource estimate
BK_postestimte30000_Oct2015.bmf	BK 2015 RE block model	Cu resource estimate

Table 7: List of core photos missing from those supplied to H&A from ENJ-KSK JV drilling.

Hole	No. Photos	From	To	Interval
KBK0019	1 photo	61.2	68.62	7.42
KBK0020	1 photo	190.9	198.25	7.35
KBK0021	5 photos	365.6	405.05	39.45
KBK0025	58 photos	76.05	393.2	317.15
KBK0026	1 photo	6.9	13.2	6.3
KBK0026	9 photos	55.65	103.75	48.1

12.1 Verification and Validation

There is missing metadata and QA/QC information for the pre 2012 drilling for assay, density and geological inputs used in the resource estimate. H&A has endeavored to verify and validate historical data firstly by assessing the validity and suitability of the ENJ-KSK and 2015 KSK data and then comparing this data with the earlier data.

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The following sub-sections outline the verification and validation approach for data used in generating the 2015 resource estimate and highlights issues uncovered and considers the risks to the estimate associated with the issues.

12.1.1 Grid Reference and Sample Location

All work is undertaken and recorded in WGS84, UTM Zone 49S. The site visit confirmed that work was undertaken in this reference as drill hole collar markers are marked with coordinates matching those in the resource dataset and coordinates for four pre-2015 holes checked by GPS agree within acceptable limits to records in the KSK dataset. H&A has been informed that there are no translation issues to investigate and that the grid references for drill holes and the LIDAR topographic surface are congruent.

KSK employed geoindo Survey Services (geoindo) to locate the holes drilled in 2015 and to locate and survey historic holes. The body of the geoindo report including survey pickups is included at Appendix 13. H&A cross-checked the original geoindo pickups against the KSK collar file to verify collar locations for geoindo surveyed holes.

The collar locations for the thirty pre-2015 holes not located and surveyed by geoindo were verified by:

- Cross checking the supplied dataset with an historic listing of holes supplied as text files.
  Only coordinates for hole BK052 differ by more than 5m between the two sources. This hole is located 200m south of the BMK resource.

- Cross checking holes against the LIDAR topographic surface.
  All drill hole collar elevations concurred within acceptable accuracy to the topographic surface.

H&A is of the opinion that drill collars are known within sufficient accuracy for the BKM 2015 Resource Estimate to be considered for all Classifications under the NI 43-101.

There is no downhole survey data for the early KSK drill holes BK-[01-16,17A,17B,18] and later holes BK0[30-32,55-57], BKD02-01 and KBK-00[19,28]. Drill traces for these holes are defined by collar surveys. Of the remaining holes, traces are defined by:

- KBK-00[20-27]: 30 to 50 metre spaced Eastman Camera Surveys
- BK0[53,54,58]: 3 metre spaced Gyro Surveys
- BK0[29,33-44,44-02,45-52]: 3 metre spaced Maxibore Surveys
- 2015 holes (BKM series): 20m spaced single shot digital camera surveys

Surveyed holes show absolute azimuth deviations range between 3 and 15 degrees and absolute dip deviation ranges between 2 and 6 degrees for all survey measurement types. Holes in general deviate clockwise, with the majority steepening with depth. Final drill hole survey directions are comparable with collar hole survey directions, with the majority of holes showing less than 5 degrees difference in both azimuth and dip.

In general holes show minimal deviation and, when considered in relationship to the geometries of the interpreted mineralized domains, drill hole traces are considered to be well defined. The consistent minor deviations observed in holes where survey control is well established lends confidence to the trace path and therefor sample locations in those 30 holes whose trace is defined by a single collar survey.

H&A considers that sample locations known to an acceptable level of accuracy for the BKM 2015 Resource Estimate to be considered for all Classifications under the NI 43-101.

12.1.2 Topographic Surface

The drill collars and surface mapping (including contours) overlay with good correlation on the LIDAR topographic surface. The consistency between the datasets assures H&A that the BK2015 Resource Estimate has internal integrity.

12.1.3 Geology, Mineralization, Alteration, Structural and Oxidation Logging

Simplified coding of logged intervals in the digital dataset describes the geology, mineralization and alteration at BKM. There is no logging of the oxidation state in the resource dataset. H&A and Mr. Stephen Hughes of KSK reviewed core photos of the mineralized intervals at BKM to verify the logging, to generate an oxidation log and to identify and classify settings for the BKM mineralization. The grouping or classification of the mineralization settings was undertaken with the specific purpose of guiding resource domaining and grade interpolation as the KSK supplied logging is not suited or readily formatted for this purpose.

Mineralized intervals for 26 historic holes, BK0[29-31,33-36,38,44,44-02,45-52,54-5] and KBK00[21,23,24] were re-logged from the core photographs. Details of the 299 observations (287 mineralized intervals) are included at Appendix 5. The key findings and styles of mineralization identified from this work and utilized in the resource estimate are:

- 12 styles of mineralization were identified (Appendix 6). These can be further grouped into three main classifications; Sheared Veins, Veins in Shears and Veins in Breccia. The Veins in Shears type is the most dominant style, whereas the Cu grade is highest in Sheared Veins (Table 8).

Table 8: Styles of mineralization identified from logging of core photos.

Photo Logging Classification					Summary		
Mineralisation Setting	Number	Metres	Proportion of Mineralisation	Average Cu (%)	Setting	Proportion	Average Cu (%)
Brecciated and oxidized	3	23	1%	0.00	Other	2%	0.28
Cc	2	11	1%	0.91			
Sheared Si-Py-Cp veins	2	11	1%	0.73	Sheared Veins	6%	0.69
Sheared Si-Py-Cv veins	6	27	2%	0.92			
Sheared Si-Py-Cv/Cc veins	11	63	4%	0.59			
Cp veins in shear	22	182	11%	0.51	Veins in Shear	91%	0.62
Si-Py-Cp veins in shear	57	385	23%	0.53			
Si-Py-Cc veins in shear	5	21	1%	0.35			
Si-Py-Cp-Cv veins in shear	10	60	4%	0.72			
Si-Py-Cv veins in shear	118	609	37%	0.63			
Si-Py-Cv/Cc veins in shear	47	241	15%	0.81			
Si-Py-Cv veins in breccia	4	20	1%	0.49	Veins in Breccia	1%	0.49
Total	**287**	**1654**		**0.63**			

- The digital structural logging shows that the ENJ-KSK recognized the structure within the mineralized intercepts (Table 9) however the significant observation made in the core photo logging is that the structural deformation is intense and shows a distinct shear fabric.

Table 9: Structural logging associated with mineralization styles identified from logging of core photos.

Mineralisation Setting (from Photo Logging)	Structure Logging in RE Dataset (from KSK)		
Veins in Shear	blocky	crushed-fractured	fractured-brecciated
	blocky-fractured	crushed-gouged	fractured-gouged
	blocky-veined	crushed-veined	fractured-veined
	crushed	fractured	gouged
	crushed-blocky	fractured-banded	gouged-veined
	crushed-brecciated	fractured-blocky	unconsolidated-veined
Sheared Veins	crushed-blocky	fractured-gouged	
	crushed-fractured	fractured-veined	
	fractured	gouged	
	fractured-banded	gouged-blocky	
Veins in Breccia	crushed-fractured		
	fractured		

- Copper mineralization is associated with veining (various Cu mineral species are hosted in veins and fractures, mostly with, but can be without silica and pyrite). A direct relationship between vein intensity/thickness (%veining) and copper grade was noted in the core photos. This relationship also becomes apparent when copper grade is assessed against the logged percentage of veining in the sample interval (Table 10).

- There is no apparent association between copper grade and total percent logged pyrite veins (Table 10). There is however an association between copper grade and intensity/frequency of pyrite veining and to a lesser extent with quartz-sulphide veining (Table 11). The core shows that copper minerals are located in thin crack-seal veinlets and not in a pervasive replacement (chalcocite disease) form. These observations support that copper mineralization is of hypogene origin, quite likely a subsequent and distinct event to the pyrite alteration.
- The ENJ-KSK Main Structure logging within the mineralized domains shows that geologists have recognized that veining (42% of intervals) and faulting (brecciation 4%, gouge 15%) are key features of the mineralized intervals. The recognition that 30% of the mineralized intervals are fractured is of significance, however it is not discernible from the logging if this fracturing is important wrt mineralization and related to faulting or is insignificant and related to late stage shattering/jointing. The core photo logging has clearly identified that mineralized intervals contain structure-related faulting and shearing which appears to be important wrt mineralization (enhancing ground preparation, forming fluid conduits and reworking and upgrading mineralization through reactivation events).

Table 10: ENJ-KSK Vein%, Pyrite% and Main Structure logging - within mineralized domains.

Logged Vein % in RE Domains			Logged Pyrite % in RE Domains			Logged Main Struct in RE Domains		
Percent (%)	Proportion of Mineralisation	Av. of Cu%	Logged Py Perc (%)	Proportion of Mineralisation	Av. of Cu%	Logged Structure	Proportion of Mineralisation	Av. of Cu%
0	2%	0.5	0-2	3%	0.5	Blocky	9%	0.9
0-2	50%	0.6	2-4	37%	0.7	Brecciated	4%	0.7
2-4	14%	0.7	4-6	23%	0.6	Fractured	30%	0.9
4-6	24%	0.5	6-8	17%	0.5	Gouge	15%	0.7
6-8	3%	1.1	8-10	5%	1.5	Vein	42%	0.6
8-10	3%	1.3	>10	15%	0.8			
>10	4%	2.3						

The photos for the 71 KSK 2015 holes were logged for veins/mineralisation styles in conjunction with the assay data. Table 11 and Table 12 present the findings from 1292 observations and show that:

- Significant copper grades (>0.5%) are associated with low vein frequencies.
- It appears that higher copper grades are more common with low frequencies of pyrite veins than they are with low frequencies of quartz veins
- 85% of the observations have ≤ 3 quartz veins and ≤ 5 pyrite veins per metre confirming observations that very little veining can host significant copper mineralisation.

Table 11: Average copper grades for logged mineralised intervals, split by veining type.

Copper Grades (%) split by veining frequency - Qtz (+/- sulphides) and Pyrite (+/- copper sulphides)																	
Pyrite vn freq (+/- Cu sulphides) - vns/m	**Quartz veining frequency (+/- sulphides) - vns/m**																
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**10**	**12**	**15**	**20**	**25**	**30**	**80**	**all**
0	0.6	0.9	0.5	0.5	0.4	1.2	0.3	0.4									0.7
1	0.2	0.3	0.3	0.4	0.4	0.6	0.4			1.0							0.3
2	0.4	0.3	0.5	0.6	0.5	0.7			0.0	0.6							0.4
3	0.6	0.4	0.7	0.5	0.4	0.6			1.6	4.5		0.7					0.6
4	0.4	0.5	0.8	0.5		0.7		0.0	0.8								0.6
5	0.7	1.0	1.2	0.7	0.9	0.9		0.6	0.7	1.5	1.3	0.9	2.6	0.7			1.0
6	0.8	0.7	0.8			1.3						1.0	5.0				1.1
7	1.2	1.2	1.2	0.9	0.6	0.5						1.1					1.1
8	1.2	1.2	1.3	1.1		3.1			2.0			0.5					1.3
9		1.2	0.9														1.1
10	2.6	2.0	2.2	1.6	1.2	1.7				0.2		1.5			2.1		2.0
12		1.2		1.5													1.4
15	3.7	1.8	4.4	2.5		2.1				1.2		2.7					2.5
18						5.3											5.3
20				4.6		3.2			7.3	2.0							3.9
25				2.6					1.4								1.8
30						0.2											0.2
35						2.3											2.3
40																12.5	12.5
all	**0.7**	**0.6**	**0.8**	**0.8**	**0.5**	**1.2**	**0.4**	**0.3**	**1.7**	**1.5**	**1.3**	**1.2**	**3.8**	**0.7**	**2.1**	**12.5**	**0.8**

Table 12: Number of logged mineralised intervals, split by veining type.

Number of Logged Intervals split by veining frequency - Qtz (+/- sulphides) and Pyrite (+/- copper sulphides)																	
Pyrite vn freq (+/- Cu sulphides) - vns/m	**Quartz veining frequency (+/- sulphides) - vns/m**																
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**10**	**12**	**15**	**20**	**25**	**30**	**80**	**all**
0	84	33	32	6	4	4	1	1									165
1	20	79	34	33	7	7	1			1							182
2	59	49	53	36	4	10			1	1							213
3	57	73	64	25	2	13			4	1		1					240
4	8	18	10	5		4		1	2								48
5	51	73	51	25	2	13		1	2	7	2	2	1	1			231
6	5	2	7			1						1	1				17
7	10	13	7	4	2	1						2					39
8	18	7	18	8		1			2			1					55
9		2	1														3
10	20	8	8	10	2	12				1		2			1		64
12		1		2													3
15	1	1	1	8		4				1		1					17
18						1											1
20				2		4			1	1							8
25				1					2								3
30						1											1
35						1											1
40																1	1
all	**333**	**359**	**286**	**165**	**23**	**77**	**2**	**3**	**14**	**13**	**2**	**10**	**2**	**1**	**1**	**1**	**1292**

An oxidation log was produced from both historic and 2015 drilling. Table 13 shows that the base of complete oxidation is encountered at shallow depths at BKM. H&A has not modeled the base of oxidation for the 2015 Resource Estimate as it is considered that the identification and reporting of this material is not of material interest at this stage of the project.

Table 13: Depth to base of complete oxidation, split by mineralised domain classification.

Domain	Number of Intercepts	Average Depth to BOCO
Unmineralised	63	10.1
Mineralised	11	8.1
All	**74**	**9.8**

12.1.4 Specific Gravity

KSK collected 1807 bulk density and dry bulk density measurements from core during the 2015 drill programme utilising the Archimedes principle for determining volume and drying permeable samples at the ITS laboratory. Quality assurance procedures included confirming scale stability over time (weighing a standard steel bar) and ensuring the water depth for immersed weight measurements were at a constant level before each SG batch was processed. H&A improved the robustness of the workstation setup during the June 2015 site visit to ensure stability over time. Quality control data from weighing the steel standard confirms that the scale measurement was constant throughout the program and records show that water levels were checked and stable as intended.

KSK dispatched 130 competent pieces of core to ITS between May 30, and June 20, 2015 for check DBD measurements of competent/non-permeable core which confirmed that the scales were calibrated correctly (wrt ITS scales) and that the BD measurements were being correctly undertaken at site (with the av%MPD being 0% and the av%|MPD| being 0.4% for pairs from both SG determinations). These samples contained and estimated moisture content of between 0 and 2% (average 0.8%). To further confirm that competent/non-permeable core could be processed for DBD at site, KSK undertook an oven drying test on 5 pieces of core and found that between 3g and 8g of moisture was driven off in the first hour of drying (1% relative wt) with only a further 0.5g to 1.5g being removed with continued drying.

With the significant amount and robust dataset created by KSK in 2015, H&A has eliminated the riskier 330 SG measurements taken by ENJ-KSK from the evaluation dataset. The key considerations in deciding to remove this data are:

- ENJ-KSK employed a process that produced a bulk density measurement, not a dry bulk density measurement as required for the resource estimate. There was no drying of any samples.

- Tonnage factors for milled shear zones containing silica fragments and crushed (clayey) matrix will be impacted by the inappropriate methodology employed. It is not easy to determine the clay content of the shears from core photos and flag SG readings from this material for consideration.
- The risk associated with this issue is not readily determinable as the extent of significant (clayey) shear zones is not easily determined from the current drill configuration/spacing at BKM.

The 1807 DBD measurement taken by KSK were validated and 54 records show spurious results (caused by missing data and/or data entry errors). These records were removed from the evaluation dataset, leaving 1753 records to determine tonnage factors to apply to the 2015 resource estimate.

12.1.5 Assays

12.1.5.1 Pre-2015 Data

Handling and storage of the pre-2015 BKM data is poorly documented. To verify that the resource dataset has not been corrupted H&A rebuilt the dataset from source files. Not all laboratory report files were available for this process. Table 14 and Table 15 list the assay intervals still to be verified.

Key findings:

- 739 of the 1051 early KSK Cu assays (pre 2002, BK-01 to BK-18 series of holes) were cross checked with their laboratory report records and no issues were detected.
- 802 of the 1658 OX-KSK Cu assays from (KBK-0019 to KBK-0028 series of holes) were cross checked with their laboratory report records and no issues were detected.
- 3163 of the 4923 ENJ-KSK Cu assays (BK series of holes) match with their primary laboratory report records (GeoAssay Laboratory results).
- ENJ-KSK compliance to protocols regarding assay-result prioritization and the management of quality control data appears to be poorly observed by personnel as Intertek Services and Sucofindo umpire laboratory results have supplanted the primary GeoAssay results in the resource estimate dataset supplied to H&A (Table 16).
- H&A has not corrected the resource dataset as the entire dataset could not be corrected due to the missing or non-supplied assay results files.
- Mixed primary and umpire Cu results in the resource dataset will not affect the outcome or confidence in the BKM 2015 Resource Estimate as the comparison of data populations (Figure 8) and 'duplicate' results from both the source and umpire laboratories (Figure 9) show that the results can be interchanged with negligible local and global impact.

Table 14: List of intervals where Laboratory Report Files not supplied to H&A for assay data verification – KSK and OX-KSK drilling programmes.

KSK Drilling				OX-KSK Drilling			
HOLEID	From	To	No. Assays	HOLEID	From	To	No. Assays
BK-11	3	132	44	KBK-0019	221	277	28
BK-12	1.1	107.6	26	KBK-0021	517.9	634.5	10
BK-13	18	220.65	68	KBK-0023	2	566	290
BK-14	3	240.55	68	KBK-0025	2	343	174
BK-16	11	257	42	KBK-0026	2	374	185
BK-17A	2	53	17	KBK-0027	2.4	188.9	94
BK-17B	2.65	277.2	34	KBK-0028	2.5	151.3	75
BK-18	215.8	267.8	13				
Total			312	Total			856

Table 15: List of intervals where Laboratory Report Files not supplied to H&A for assay data verification – ENJ-KSK drilling programme.

Supplied Laboratory Report Files	Determination of assay source in ENJ-KSK Cu dataset	HOLEID	No. of Assays	From	To	Comment
No Lab Report files to H&A (20140820)	Source of RE dataset cannot be determined	BK037	55	5	181.2	Should have GeoAssay Lab (GA) results somewhere - possibly Intertek Services (ITS) and Sucofindo (SFK) check assays too
		BK038	50	18	183.3	
		BK040	54	2.9	187	
		BK041	34	188.4	300.1	
		BK042	54	6.4	181.9	
		BK043	54	10.5	189.6	
		BK044	54	3.3	180.1	
		BK045	54	1.4	171.3	
		BK046	54	6	181.5	
		BKD03-02	42	362	540.8	
Have ITS assay results only	ITS assays do not match RE dataset - source of RE dataset not determinable	BKD03-02	12	391	537.8	Should have GA results somewhere - possibly SFK as well...
Have SFK assay results only	most likely SFK in RE dataset as these consistently match sequence in RE dataset	BK037	6	30.35	169.97	Should have GA results somwhere - possibly ITS as well...
		BK038	3	45.8	105.3	
		BK040	6	28.9	178	
		BK041	3	214.9	275.5	
		BK042	6	28.8	172.9	
		BK043	6	37.3	180.1	
		BK044	6	28.1	171	
		BK045	6	27.8	163	
		BK046	3	32.4	146.8	
		BKD03-02	5	415	531.8	
have GA results - however suspect other assays missing	DB records are not GA - most likely ITS as consistent with adjoining assays in RE dataset	BK029	54	135.5	300	Suspect ITS and/or SFK results missing
		BK030	44	169.1	301	

Table 16: List of copper assay sources for pre 2015 data utilized in 2015 Resource Estimate.

Assay Results files	Comments regarding prioritisation for inclusion in FPT RE dataset	Number of Samples
no Lab Report files to H&A (20140820)	Source of RE dataset cannot be determined	505
Have ITS assay results only	ITS assays do not match RE dataset - source of RE dataset not determinable	12
Have SFK assay results only	most likely SFK in RE dataset as these consistently match sequence in RE dataset	50
	SFK-GAM match RE dataset however have SFK OreGrade Assays not prioritised in RE dataset	5
GA results only	Most likely GA in RE dataset as these consistently match adjoining sequence	2982
have GA results - however suspect other assays	DB records are not GA - most likely ITS as consistent with adjoining assays in RE dataset	98
Have GA and ITS assay results	GA prioritised in RE dataset	153
	ITS prioritised in RE dataset	872
GA-ITS-SFK	SFK prioritised in RE dataset	14
GA-SFK	GA prioritised in RE dataset	28
	SFK prioritised in RE dataset	197
	SFK-GAM match RE dataset however have SFK OreGrade Assays not prioritised in RE dataset	7
total FPT drill assays in BK		4923

12.1.5.2 2015 Data

H&A was engaged by KSK at the beginning of the 2015 drilling programme to monitor copper assay quality assurance and quality control (QAQC). H&A reviewed and improved the KSK QAQC practices in two stages, the first being in early June and the second being during the late June site visit. The review included:

- Reviewing analytical method; resulting in increasing the elements reported by ITS,
- Reviewing standard type, grade ranges, insertion positions and rates; resulting in preferentially positioning coarse blanks and duplicates in mineralised intervals,
- Assessing sample dispatch sizes wrt the standard inclusion rates and ITS laboratory batch/work flow sheet; resulting in an increase in batch sizes,
- Reviewing standards, duplicates and blanks performance for assays already received (batches BKM00[3-12, 15-24]; resulting in feedback to laboratory regarding copper assay drift and correction issues and the continuation of -2mm crush and split of primary sample to produce a ~1kg subsample for pulverizing,
- A visit to the ITS Jakarta laboratory to review sample preparation workstations and procedures; resulting in the following recommendations and requests:
    - To de-clutter the sample crushing and pulverizing area,
    - The Boyd Crusher to be used exclusively for reducing the samples to -2mm in size,
    - Barren wash to be processed between each sample processed through the crusher and pulverizer,
    - Move the barren wash storage bins to more accessible places (wrt workstations),

- Use a better shaped, square sided scoop for sampling of pulverized material,
- Use pulp package that is capable of holding >>250g (eg 500g) and ensure that the 250g pulp material is not tightly packed into this satchel (allowing analytical charge to be selected from any portion of in the satchel),
- Both the -2mm and -75micron comminution test results to be reported with assay results.

Section 12.2.3.2 reports on the quality control assessment of samples included in the 2015 assay batches and on the findings from resubmitting selected samples to an umpire or check laboratory. In addition to reviewing the QAQC protocols and quality control assay data H&A constructed a parallel dataset from site DPO files and ITS Laboratory results files which was cross-checked with the KSK generated assay dataset before being used to generate the 2015 resource estimate. No issues were uncovered.

12.1.6 Core Diameter

The historic drill core diameter data was delivered to H&A with significant and numerous errors. It appeared that the dataset was corrupted at some point and H&A suspects that drag-drop or copy-down processes are responsible. H&A re-generated the drill core diameter data from logging files for some of the early KSK drill holes (pre 2002) and from core photographs for the OX-KSK and ENJ-KSK drilling. Core diameter logging for holes BK-[06-18], BK044 and BKD[01-01,02-01,02-02,03-01,03-02,04-01] could not be verified.

Complete and reliable data was delivered for the KSK 2015 drillholes.

The dataset used in evaluating the impact of the fundamental error on the BKM 2015 Resource Estimate is accurate, however is also incomplete as H&A does not have original logs and/or photos for mineralised sections for a number of holes. H&A is of the belief that the missing data will not impact on the outcomes of the evaluation but will impact on the confidence in assessing any risk to the BKM 2015 Resource Estimate related to drilling recovery issues.

12.1.7 Core Recovery

Core recovery data for holes BK[29-36,38,44-01,44-02,45-50,54,55,57,58], BKD03-[01,02] and the KSK 2015 drillholes was delivered to H&A and available to evaluate the association between recovery/loss and copper assays.

Verification of the logged core recovery data was undertaken by assessing the core photos for a number of intervals. H&A noted a small number of significant discrepancies between the logging and core photo observations however these are unlikely to impact on the evaluation or risk assessment to the BKM 2015 Resource Estimate. This is due to most core recoveries through mineralised zones being close to 100% (due to the presence of intense silica and pyrite alteration) leading to a dataset with low numbers of poor recovery samples (to assess any relationships) and the low impact of core recovery on confidence in the estimate.

12.2 **Analysis and Investigation**

The following analyses and investigations underpin the modeling, grade interpolation strategies and classification of the BKM 2015 Resource Estimate.

12.2.1 Geology, Mineralization and Structure

Historical workers' reports on the BKM geology have largely focused on aspects of the geology and mineralization for the targeting of world-class systems in the prospect area. Descriptions of the Beruang Kanan Main Zone style(s) of mineralization and settings are brief and mainly directed at how they relate to both porphyry and breccia-pipe systems. There are limited references to the geology, mineralization and structural setting of the copper mineralisation that is the subject of the BKM 2015 Resource Estimate. Historical authors recognize the structural setting hosting the mineralization and the following references can be found in historic reports:

- Geiger and Prasetyo (2004) report:
  - In the Main Zone, fourteen drill holes, to 280m measured depth, have intersected a north-northwest trending zone of intensely sheared and silicified, highly pyritic, zoned phyllic to advanced argillic altered wallrock. This zone was found to host copper grades of up to 167m @ 0.59% Cu.
  - The IP surveys clearly define the highly pyritic north northeast trending shear zone that hosts most of the copper mineralization in the Main Zone.
- Munroe and Clayton (2006) report:
  - Drill core from Beruang Kanan which was observed during this review indicated a strongly altered (phyllic and advanced argillic) centre which was strongly deformed in some areas. Quartz + pyrite + chalcopyrite in veins are associated with a strong cleavage in the altered rock, suggesting a strong structural control to the veins.
  - The drilling indicates a significant zone of narrow vein and disseminated mineralization which returns 0.7-0.9% Cu.
- Johansen (2007) reports:
  - Alteration and copper mineralization are strongly structurally controlled. This is particularly obvious in the copper soil geochemistry data. Based on the drilling completed at Beruang Kanan by Oxiana Ltd (10 holes for 3,881.25m) alteration within or close to structures is dominated by sericite (phyllic) with peripheral alteration dominated by chlorite (propylitic). Copper mineralisation is associated

with zones of white, irregular, mesothermal quartz veins (1 to 5cm wide). The veining distribution is closely associated with faulting. The majority of the chalcocite, covellite, digenite and enargite at the main zone at Beruang Kanan are more likely to be supergene though there is still some evidence for the remnants of a high sulphidation system.

- Pollard (2006) reports of observations from drill holes BK[01,02,04,05,15]:
    - Most of the drill core is composed of milled breccia with fragments commonly 1-4cm in size and a matrix component of 10-30 vol%. The fragments are commonly rounded and are composed of silica- and silica-sericite altered material ranging from dark black-brown (possibly chloritic), to pale yellow-brown, to dark and pale grey in colour. These may reflect different original rock types and/or different alteration styles. The matrix probably consisted of rock flour material but is now completely altered to silica-sericite. Much of the core exhibits strong shearing *(sic. Fig. 10)* which appears to be post-mineral in timing, i.e. the alteration zone is sheared rather than being alteration of a shear zone.

KSK personnel (Mr. S. Hughes) and H&A verified the core logging and reviewed the geological setting of the BKM mineralisation (Section 12.1.3, Appendix 5, Appendix 6 and Appendix 8) and their observations clearly support that the mineralisation is vein related and the host rock is strongly sheared, milled and faulted. Key observations relevant to the modeling of the mineralization for the 2015 Resource Estimate are:

- There is strong indication that the advanced argillic alteration spans the deformation as the milled matrix is commonly silicified.
- Copper bearing cross-cutting veins and breccia veins-fragments were noted, suggesting that the mineralization veining event spans the deformation (though it could not be determined at what stage the covellite/chalcopyrite replacement of pyrite occurred).
- There is indication that the covellite/chalcopyrite replacement of pyrite is of hypogene origin and occurred during a single, or specific number of, event(s) as it occupies unique locations within veins (commonly along vein extremities) leaving untouched other apparently favorable pyrite rich bands.
- Later pyrite alteration overprints the covellite/chalcopyrite replacement. In hand specimen there is no evidence that this amorphous pyrite has been attacked by the copper bearing fluids.
- Copper grade tenor is loosely correlated to the veining intensity/thickness. Ground preparation (shearing, brecciation, silicification etc.) appears to be an important step in focusing and increasing veining.

H&A has adopted the shear/thrust related mineralisation setting in modeling resource domains to guide copper grade interpolation at BKM. The majority of the mineralisation at BKM is located along the main east-west trending ridge and spur defined loosely between 768400E and 769000E; 9932000N and 9932700N. A second, smaller centre of mineralisation is located along a lower spur to the south and defined loosely between 768700E and 769100E; 9931600N and 9931900N. The geomorphology over the mineralisation is reflective of E-W striking north dipping thrust faulting.

Following detailed evaluation (Section 12.2.2) it can be interpreted that two thrust systems are present and strike at approximately 20 degrees to each other (Figure 6). It cannot be interpreted from the current data and information as to how the system may have manifested which could be by ramping, coupling or reactivation (following a change in the stress regime). Determining the nature of the structural model is not of major concern regarding risk to the resource modeling at this stage of the project, as favorable locations for hosting mineralization are coincident with each model and in-order with the location of mineralisation at BKM. It will be however imperative to understand the trusting regime for designing further drilling of the mineralisation as, although overall geometries of mineralisation are similar for each model, the internal veining and alteration geometries/fabric will differ for each.

12.2.2 Resource Domaining

H&A undertook the activities in domaining the mineralization at BKM for resource estimation:

- Reviewed historic reports and drill core (at site and in supplied ENJ-KSK, OX-KSK and KSK 2015 photos with the assistance of KSK geologists)
- Generated a 3D working environment in Minesight™ presenting the drill hole copper assays, the drill hole structure, lithology and oxidation logging, surface soils and rockchip copper assays, the LIDAR topography (TIN surface) and the KSK interpreted surface geology mapping.
- Presented the LIDAR topography utilizing two Minesight™ routines that colour/contour surfaces by associated features (in this case azimuth and dip).
- Identified and interpreted topographic surfaces (faces of the TIN) at 020 degree azimuth ranges between 040 and 180 degrees (i.e. 020-040, 040-060 etc., Figure 5) and interpreted key or main thrust surfaces
- Interpreting and visualizing the multi-element assay data (Appendix 14) to identify volumes of favorable mineralisation signatures.
- Generated surfaces projecting the interpreted major thrusts (from topographic surface) through the volume defined by the drilling assisted by features observed in the multi-element geochemistry volumes.
- Statistically reviewing the copper drill hole assay data to establish likely natural cutoff grades for modeling the mineralization
- Linking/domaining the >2000ppm Cu intercepts (Figure 7) utilising the topographic interpreted thrusts and their projected depth surfaces as guides to identify related intercepts.

- Visually and statistically validating the modeled domains to ensure that TIN surfaces snapped to drillhole traces and are consistent with adjoining modeled intervals (Table 17).

East-west cross-sections of the domains can be seen at Appendix 9.

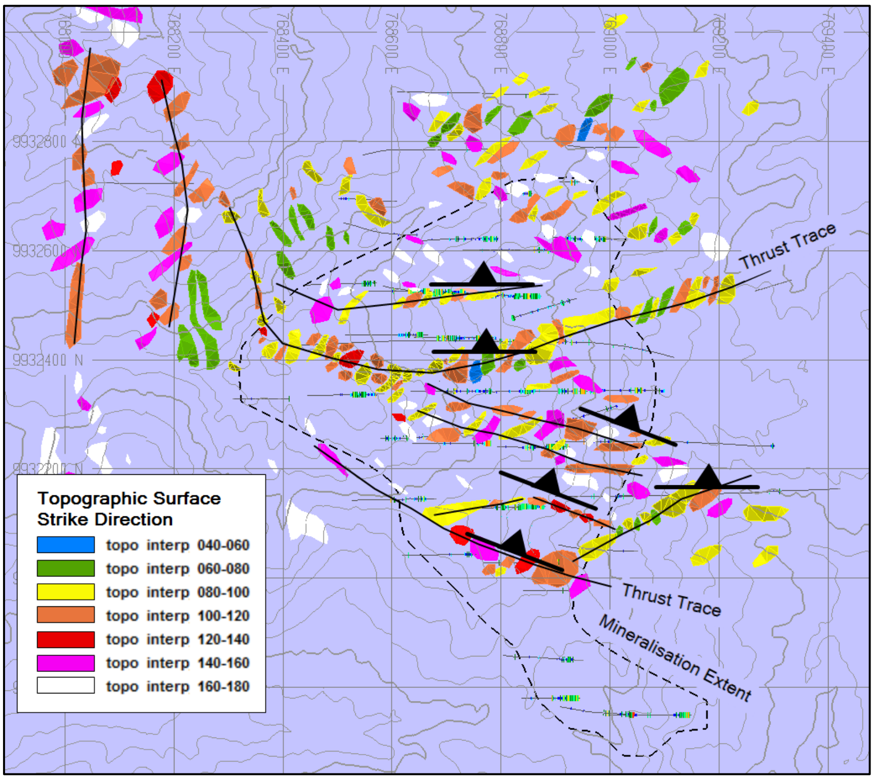


Figure 5: Geomorphology Interpretation and interpreted thrust-control on mineralization (idealized); detailed interpretation presented at Appendix 14.

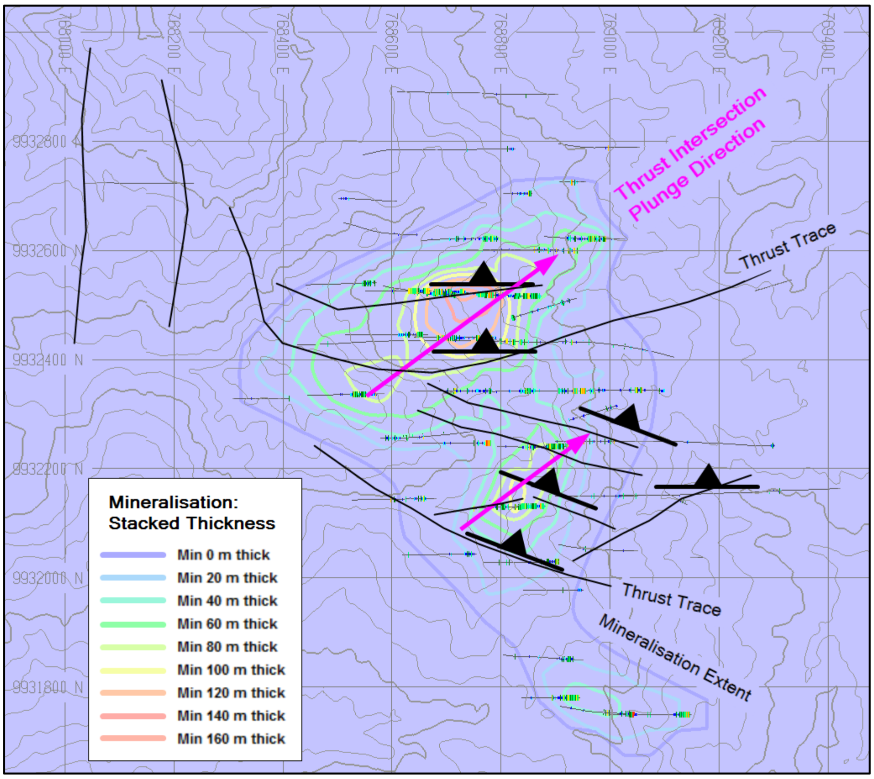


Figure 6: Mineralised domains (stacked total thickness) and thrust-control interpretation (idealized); detailed interpretation presented at Appendix 14.

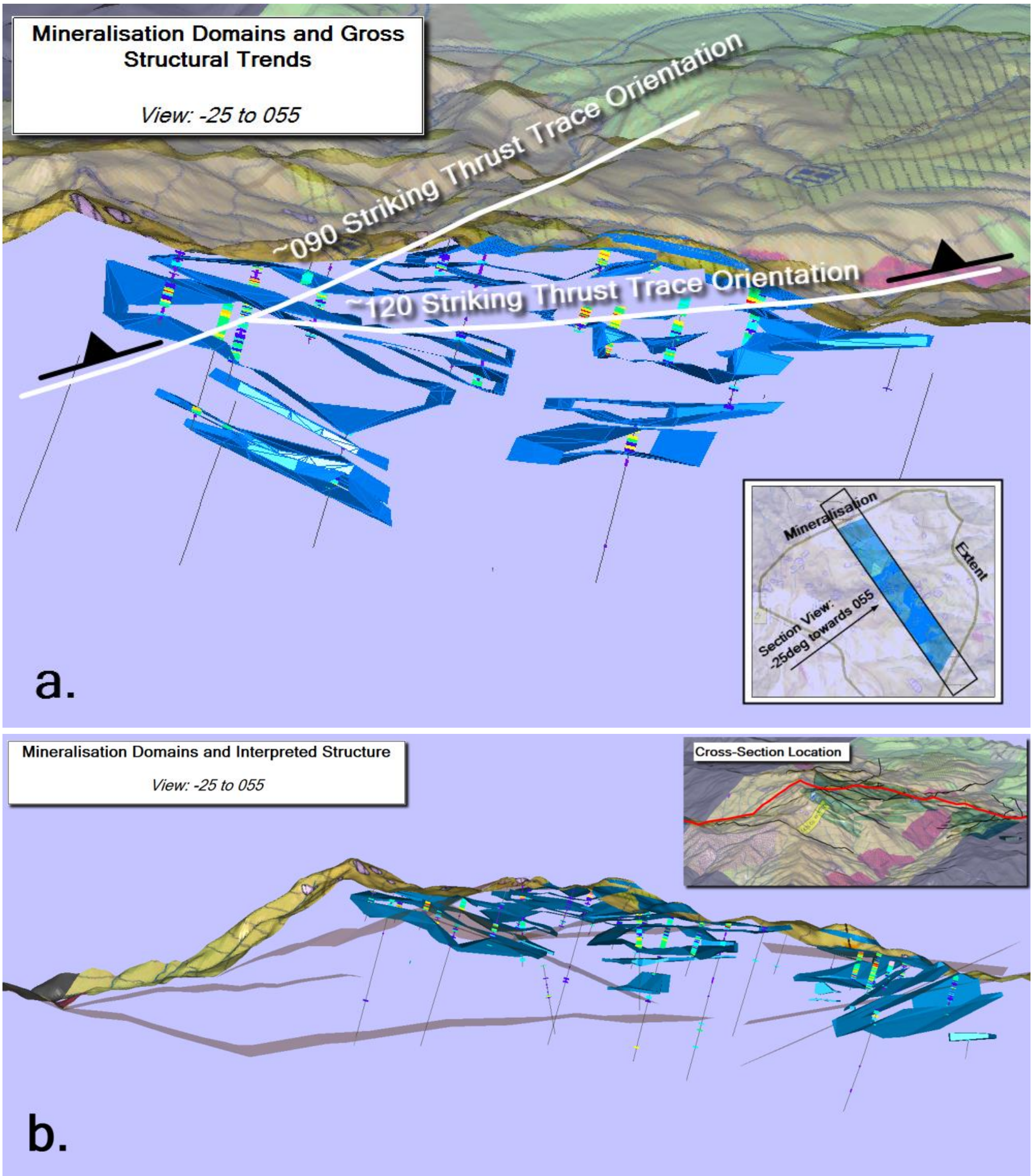


Figure 7: Mineralisation Domains - View down plunge extention of domains. a. showing two main thrust directions and b. interpreted thrust and fault planes interpreted from geomorphology and multi-element domains associated with copper mineralisation.

Table 17: Average copper grade across domain contacts show significant and sharp grade tenor change.

	Domained Mineralisation Av. Cu Grade (ppm)					Contact	Not Mineralised Av. Cu Grade (ppm)				
Composites from Contact	-5	-4	-3	-2	-1		1	2	3	4	5
Mineralisation Upper Contact	6724	5912	7315	6609	6875		1126	943	882	652	693
Mineralisation Lower Contact	8190	7112	7218	6926	5684		877	843	999	837	519

12.2.3 Copper Assays – Quality Assessment

12.2.3.1 Pre-2015 Copper Assays

Quality Control Assay samples were submitted with routine samples for the OX-KSK and ENJ-KSK drilling programmes. There were no quality control samples inserted into the early KSK drill samples to check the reliability of copper results.

ENJ-KSK compiled a detailed assay quality control report (see Appendix 3). H&A has confirmed that the assay results for the QC samples are as reported from the laboratories and agrees with the ENJ-KSK findings, these being:

- There is no detectable cross contamination issues to be considered
- The CRM assays show that the laboratories (GeoAssay, Intertek Services and Sucofindo) return reliable copper assays for all batches
- Check assays to reference laboratories show good correlation with the primary laboratory copper assays.

H&A also notes that ENJ-KSK:

- Submitted both barren quartz and unconsolidated sand as their blank material at the rate of one per batch. The use of sand is not ideal as exposure to crusher contamination cannot be detected. The inclusion rate of blanks is low.
- Sourced four standards from those used by PT Freeport Indonesia and produced one matrix matched standard from the BKM prospect. Globally the matrix matched standard BKSH-01 performs poorly wrt the other standards, H&A suspects that this is more likely due to features of the standard rather than issues with the laboratories and therefor has no reason to question the reliability of the routine assay at this stage of the project.
- Copper assays of the standards from ITS and SFK increase from ~+/-1% difference from their certified values pre May 2013 to +3-5% difference from these values post May 2013. The GA results are acceptable for all periods bar August 2012 where they are 4% greater than the certified values. ENJ-KSK offer no reason for the deviation in assay accuracy.

- The inter-laboratory check sample results analysis presented by ENJ-KSK show that assays generally differ by less than 4% (mean paired difference). The ENJ-KSK report does not show direct comparisons between the primary laboratory (GeoAssay) and the check laboratory sample results. H&A presents this comparison in Figure 8 and Figure 9. This analysis confirms the ENJ-KSK findings, being that the umpire laboratories' copper assays compare well with the primary laboratory assays.

In addition, H&A reviewed all laboratory inserted standards, duplicate assays and repeat assays inserted by GeoAssay, Intertek Services and Sucofindo. No material issues were uncovered that would impact on assay confidence for generating and classifying the BKM 2015 Resource Estimate.

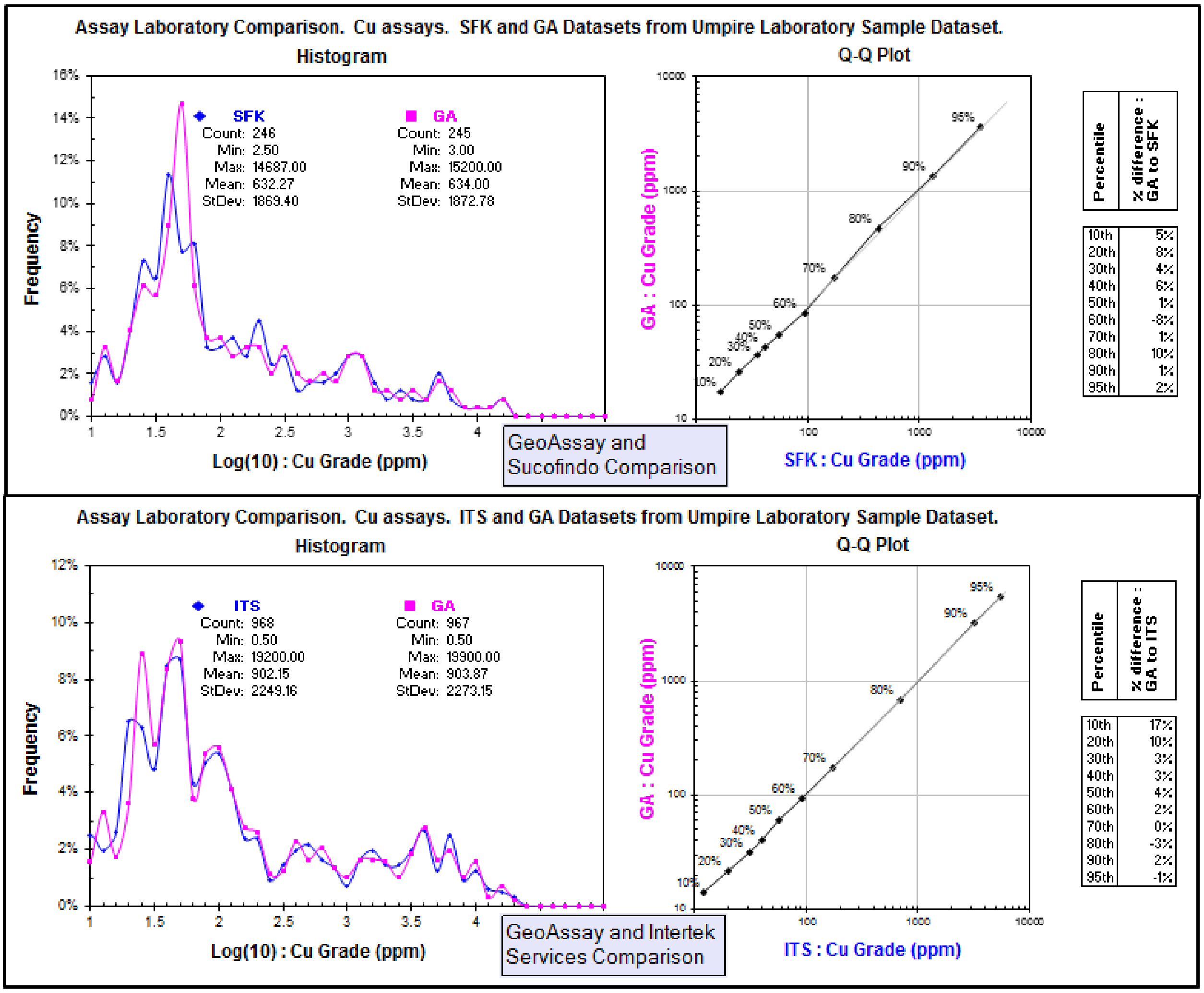


Figure 8: Umpire Laboratory copper assays (ITS and SFK) comparison with Primary GeoAssay copper assays. Histogram and Q-Q Plot presentation.

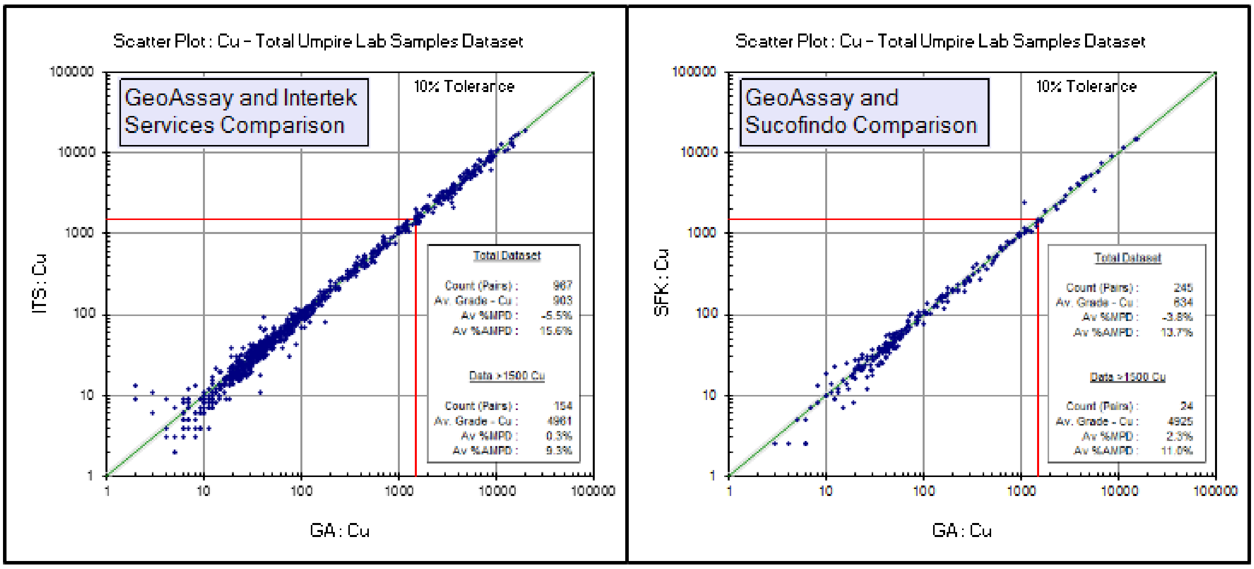


Figure 9: Umpire Laboratory copper assays (ITS and SFK) comparison with Primary GeoAssay copper assays. Scatter Plots and MPD presentation.

Blanks and standards were submitted into the routine sample stream for assaying by OX-KSK. There is no reference in the dataset supplied to H&A as to which assay results belong to the quality control samples, therefor H&A is not able to cross-check the graphs presented by OX-KSK on the assay quality control assay results (Appendix 4).

H&A notes from the OX-KSK graphs:

- The QC programme undertaken is limited and not ideal for assessing the reliability of assaying of samples to be utilized in generating resource estimates.
- There is no concern regarding the degree of cross-sample contamination, however early batches (K30001 to K30010)show that the laboratory performance is questionable with the level of contamination in coarse blanks being up to double that of later batches.
- CRM standards show that laboratory performance for early batches (K30001 to K30009) is of concern, as:
    - All copper results for standard OREAS52pb (3338ppm Cu) are within the "warning" classification (>2StdDev from expected value as specified by the CRM documentation).
    - Copper results for the inserted standard OREAS50pb (7440ppm Cu) are more in alignment with their expected value, however the precision in batches K30001 to K30009 is poor compared with batches K30010 and above.

The reliability of copper results for batches K30001 to K30009 is yet to be confirmed. This casts doubt on the suitability of assays in mineralised intervals for hole KBK-0021 in underpinning resource estimates. Hole KBK-0021 is located in the eastern extent of the modeled mineralization. There is significant drilling in mineralisation to the west of hole KBK-0021 and three holes are located to the east of KBK-0021. The weighting of samples from the surrounding holes will effectively restrict the influence of hole KBK-0021 to informing resources within the immediate vicinity of its drill trace. The impact of any confidence in the assays for hole KBK-0021 is expected to be minimal and most likely immaterial when considering the classification criteria for the BKM 2015 Resource Estimate at global scale.

H&A is of the opinion that the copper assays for the ENJ-KSK drill programme are suitable for underpinning resource estimates being considered for Classification under the guidelines set out in the Canadian NI 43-101. H&A has compared the copper assay populations from ENJ-KSK with the combined KSK and OX-KSK programmes and with the assays from pre-2015 with the 2015 KSK drilling and considers that, for the purpose of generating the BKM 2015 Resource Estimate, all populations are statistically the same (Figure 10 and Figure 17). H&A is of the opinion that, although the reliability of the pre ENJ-KSK drill assay data cannot be assessed directly, the similarity of the statistical-distributions adds confidence in this data and H&A proposes that the probability this data containing material issues affecting accuracy or confidence in the BKM 2015 Resource Estimate is low.

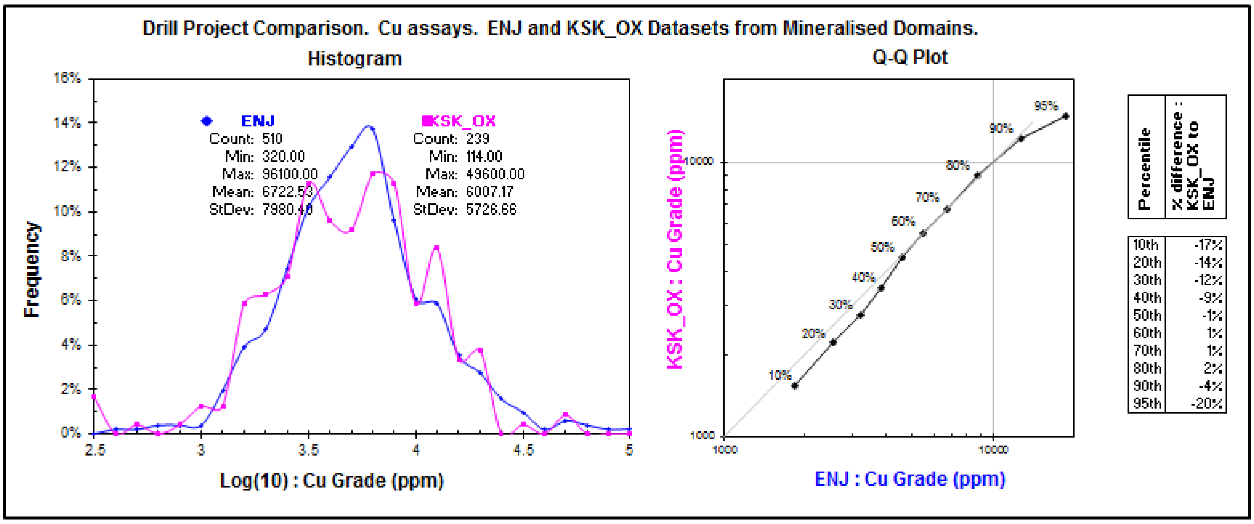


Figure 10: Copper grade comparison - recent ENJ-KSK assays vs combined historic KSK and OX-KSK assays.

12.2.3.2 2015 Copper Assays

KSK submitted half core routine samples to PT Intertek Utama Services (ITS) Jakarta laboratory for sample preparation and analysis (the laboratory KAN accreditation certificates are included at Appendix 15). The sample preparation flowsheet is presented at Figure 11. All samples were assayed for copper by ITS method IC30 with four samples returning assays of >12%Cu being reassayed by ITS method GA30. Details of the analytical methods are as follows:

- Sample assay charge: IC30 = 0.50g; GA30 = 0.25g

- Digest method: digested to incipient dryness with Nitric, Hydrochloric and Perchloric acids. The salts are redissolved in Hydrochloric Acid and made to final volume in a volumetric flask using distilled water.
- Analytical method: ICP-OES
- Lower limit of detection, Cu: IC30 = 2ppm; GA30 = 0.01%
- Upper limit of detection, Cu: IC30 = 10%; GA30 = unlimited. Reanalysis by GA30 is primarily due to the upper limit for IC30 however may also be conducted to confirm higher IC30 grade results for QC purposes.

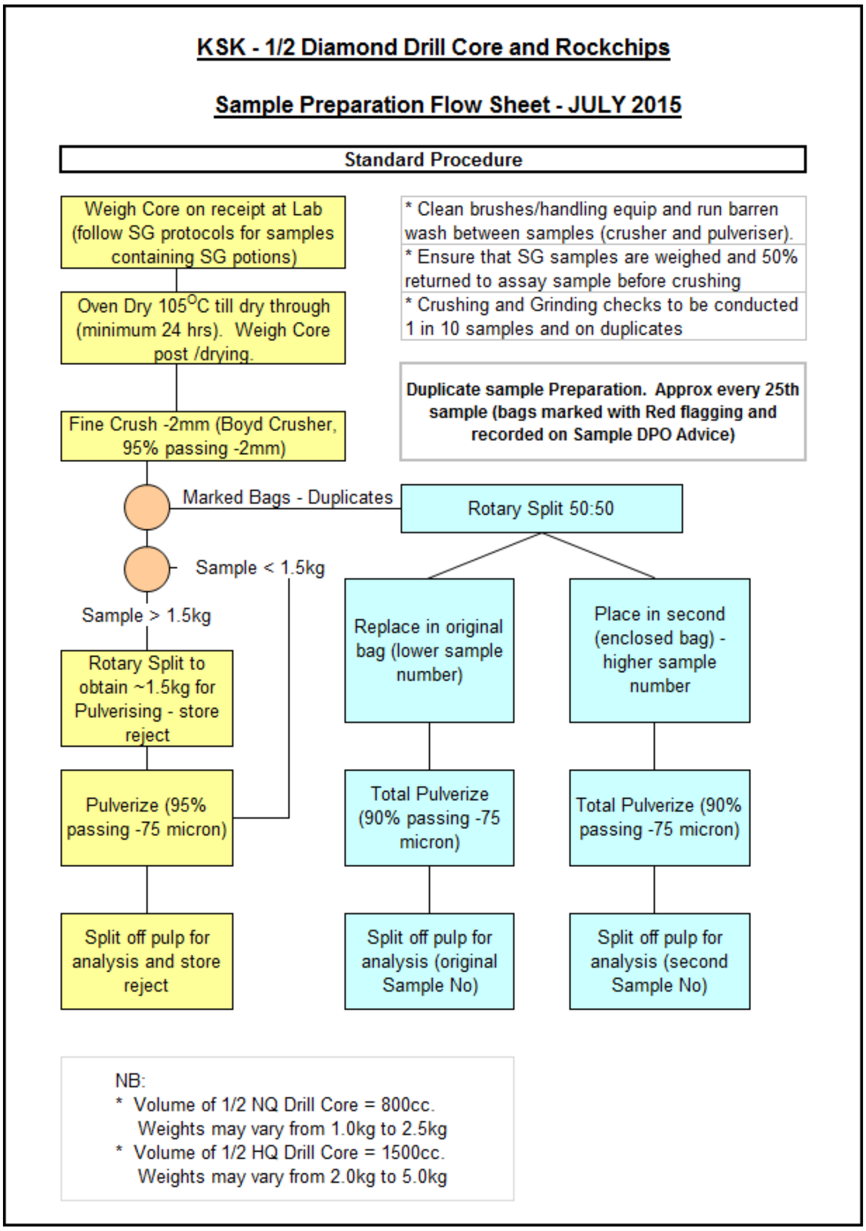


Figure 11: KSK 2015 drillcore sample preparation flowsheet.

KSK employed coarse and pulp blanks, standards and coarse crush and split duplicates with the routine samples to assess copper assay reliability. ITS included blanks, standards, second charges (same batch) and repeat assays (subsequent assay batch) in the analytical stream. Insertion rates and sizing test results are shown at Table 18. Coarse blanks and coarse crush and split duplicates were preferentially inserted where mineralisation was observed. KSK pulp blanks were inserted following standards. KSK utilized the commercially available Ore Research & Exploration Pty Ltd standards OREAS 50C (7420ppm Cu, performance gate of 1STDEV = 160ppm Cu) and OREAS 151A (1660ppm Cu, performance gate of 1STDEV = 50ppm Cu). Details of the standards employed by ITS are presented at Table 19.

Table 18: Quality control sample insertion rates and sieve sizing analysis.

Batch	Routine Sample Count	Inclusion Sample Percentage of Batch								Sizing Distribution (number of tests in each material passing category)			
		KSK Quality Control Samples				ITS Lab Quality Control Samples				-2mm	-75micron		
		Standards	Coarse Blanks	Pulp Blanks	Coarse Crush Duplicates	Standards	Blanks	Second Charge	Repeat Assay	> 95% < 100%	> 85% < 90%	> 90% < 95%	> 95% < 100%
BKM0003	74	6%	2%	2%	3%	10%	3%	6%	3%				5
BKM0004	54	6%	2%	2%	5%	8%	3%	6%	5%				4
BKM0005	66	5%	3%	1%	5%	8%	3%	6%	5%				3
BKM0006	60	6%	3%	1%	4%	11%	3%	4%	6%				5
BKM0007	84	7%	2%	3%	3%	9%	3%	6%	5%				5
BKM0008	71	7%	2%	2%	4%	10%	2%	6%	4%				4
BKM0009	45	6%	2%	2%	4%	12%	4%	6%	6%				3
BKM0010	47	7%	2%	4%	4%	11%	4%	5%	5%				3
BKM0011	72	6%	2%	1%	5%	8%	2%	5%	5%				5
BKM0012	14	12%	6%	0%	0%	12%	6%	6%	6%				1
BKM0015	56	8%	2%	3%	3%	12%	3%	6%	6%				4
BKM0016	57	6%	3%	3%	4%	12%	3%	6%	6%				4
BKM0017	61	6%	1%	1%	4%	9%	3%	4%	7%				4
BKM0018	59	6%	1%	1%	4%	9%	3%	4%	6%				4
BKM0019	55	5%	3%	2%	3%	6%	3%	6%	5%				3
BKM0020	59	7%	1%	1%	3%	7%	3%	6%	4%				5
BKM0021	26	3%	3%	3%	6%	6%	3%	6%	6%				2
BKM0022	52	5%	2%	2%	5%	7%	3%	7%	3%				3
BKM0023	22	4%	0%	0%	4%	8%	4%	4%	8%				2
BKM0024	37	7%	5%	2%	2%	14%	5%	5%	5%				3
BKM0025	39	7%	2%	2%	4%	13%	4%	7%	4%				3
BKM0026	36	5%	0%	2%	5%	10%	2%	2%	7%				3
BKM0028	41	8%	0%	4%	2%	10%	4%	2%	6%				3
BKM0029	45	4%	4%	2%	4%	10%	4%	6%	6%				3
BKM0030	63	4%	3%	3%	4%	8%	3%	5%	4%				4
BKM0031	60	9%	1%	1%	3%	10%	3%	6%	3%				4
BKM0032	118	6%	2%	1%	4%	7%	3%	5%	4%	13			13
BKM0033	60	6%	3%	3%	4%	6%	3%	6%	6%	8			4
BKM0034	106	5%	2%	2%	4%	5%	2%	7%	4%	10			7
BKM0035	78	4%	3%	1%	4%	6%	3%	7%	4%	10			5
BKM0036	68	5%	4%	3%	4%	9%	3%	6%	5%	9			4
BKM0037	70	6%	4%	1%	4%	6%	2%	6%	5%	9			9
BKM0038	101	6%	3%	3%	4%	8%	3%	5%	6%	10			7
BKM0039	112	6%	2%	2%	4%	6%	3%	5%	8%	4			6
BKM0040	143	5%	2%	2%	4%	7%	3%	7%	5%	17	1		10
BKM0041	100	5%	4%	4%	4%	7%	2%	7%	5%	10			6
BKM0042	190	4%	3%	3%	4%	7%	3%	6%	5%	23			8
BKM0043	162	4%	2%	2%	4%	8%	3%	7%	3%	19			13
BKM0044	99	4%	3%	3%	5%	8%	3%	6%	5%	12			12
BKM0045	116	6%	2%	2%	4%	8%	3%	7%	7%	14			7
BKM0046	101	6%	2%	4%	4%	6%	3%	5%	6%	13			7
BKM0047	68	5%	3%	3%	4%	8%	3%	6%	3%	8			4
BKM0048	59	9%	3%	0%	3%	4%	3%	6%	9%	7			5
BKM0049	84	5%	3%	0%	4%	7%	3%	6%	5%	10			6
BKM0050	156	6%	2%	2%	3%	6%	3%	6%	6%	18			11
BKM0051	88	7%	4%	2%	3%	9%	3%	5%	6%	11			7
BKM0052	57	5%	2%	0%	3%	11%	3%	6%	8%	7			7
BKM0053	71	6%	1%	2%	5%	7%	2%	5%	10%	9			5
BKM0054	73	7%	2%	2%	3%	8%	3%	6%	5%	9			5
BKM0055	98	4%	3%	2%	4%	6%	3%	6%	5%	12			6
BKM0056	85	6%	2%	2%	4%	7%	3%	6%	5%	10			9
BKM0057	100	6%	2%	3%	3%	8%	3%	6%	5%	12			6

Table 19: Laboratory standards performance criteria

Cu Standards used by ITS Laboratory (Cu Grade %)			
Lab Standard	Expected Value	Performance Gate	Performance Gate Criteria
OREAS 50C	7420	160	1STD
OREAS 151A	1660	50	1STD
OREAS 501B	2600	110	1STD
OREAS 502B	7730	200	1STD
OREAS 503B	5310	230	1STD
OREAS 504B	11100	420	1STD
BM 161	687	43	1STD
BM 49 / 197	3881	195	1STD
BM-16/214	15022	552	1STD
GBM399-5	29424	1446	1STD
LKSD-4	31	1.2	4%RSD
NI_LTRT13	10	0.4	4%RSD
STSD-1	36	1	4%RSD

No contamination or carry-over issues were detected in the coarse blanks or pulp blanks (both KSK and ITS). No material issues were detected in the KSK or ITS standards (KSK inserted standards shewhart control chart is presented at Figure 12).

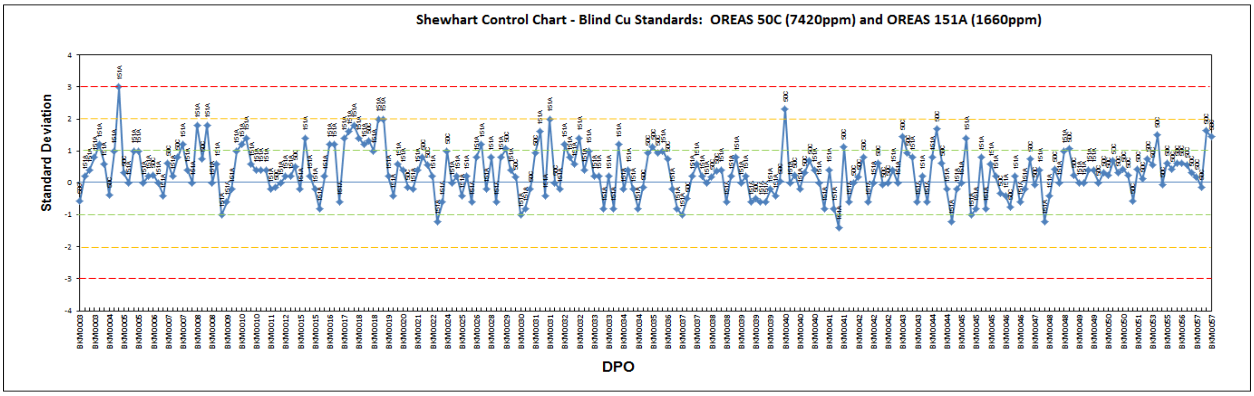
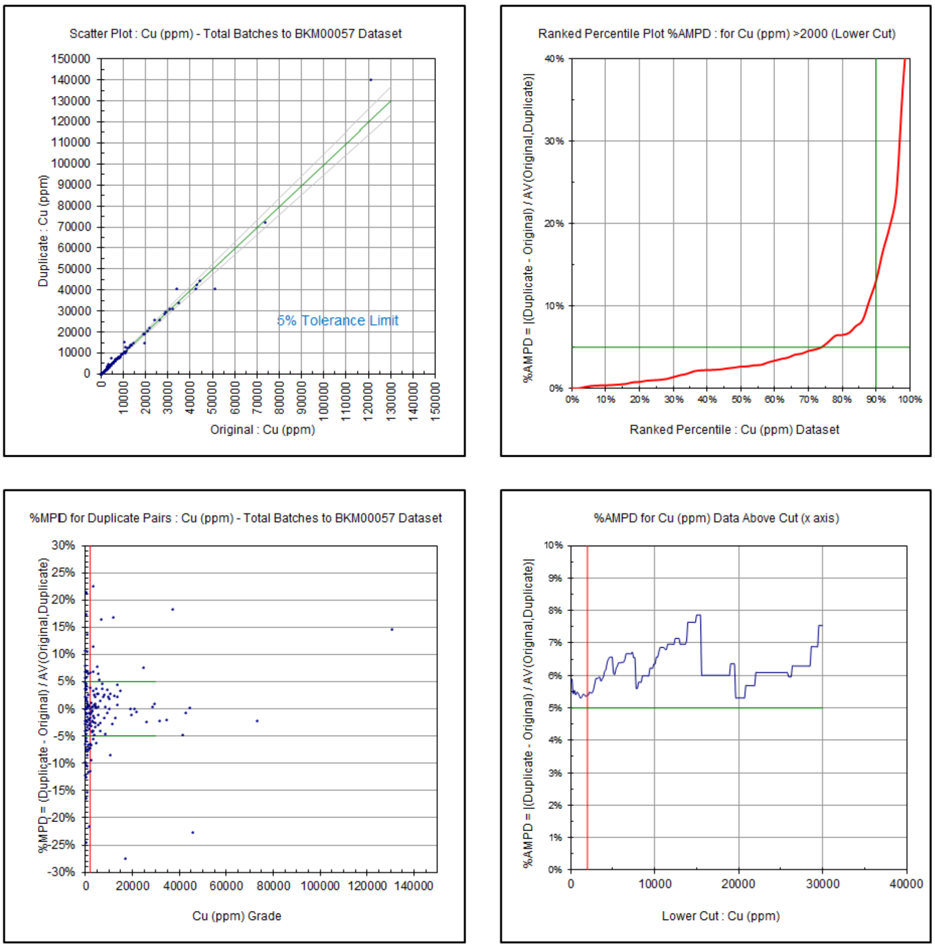


Figure 12: KSK standards for 2015 assays. Shewhart control chart.

The KSK Coarse crush and split duplicate copper assays (Figure 13) show acceptable repeatability for early batches (to BKM0038, 1956 samples), with only 7 of the 39 pairs with grades greater than 0.2% Cu showing %MPDs of greater than 5% (maximum 11% AMPD). Later batches (from BKM0039, 1962 samples) show a marked breakdown in the duplication of copper assays. For these batches, 17 of the 60 pairs with grades greater than 0.2% Cu show %MPDs of greater than 5% (maximum 47% AMPD).

Cu (ppm) - BKM Duplicate Analysis - Split Following Coarse Crush - 2015 : Batches to BKM00057



Summary Statistics

Total Dataset - Batches to BKM00057

Count (Pairs) :	172
Av. Grade - Cu (ppm) :	6924.69
Av %MPD :	0.2%
Av %AMPD :	5.8%

Data >2000 Cu (ppm) - Batches to BKM00057

Count (Pairs) :	96
Av. Grade - Cu (ppm) :	11833.3
Av %MPD :	1.3%
Av %AMPD :	5.4%

Top 30 Pairs (%AMPD) : >2000 Cu (ppm)

Original	Duplicate	%AMPD	Batch
4770	7670	47%	BKM0053
10200	15500	41%	BKM0041
3420	4950	37%	BKM0039
19500	14800	27%	BKM0042
50900	40500	23%	BKM0044
2840	3560	23%	BKM0045
33700	40500	18%	BKM0044
10900	12900	17%	BKM0052
6240	7360	16%	BKM0053
121000	140000	15%	BKM0040
2940	3300	12%	BKM0043
2210	1970	11%	BKM0018
2680	2440	9%	BKM0005
11100	10200	8%	BKM0003
4810	5200	8%	BKM0046
23900	25800	8%	BKM0053
2020	1880	7%	BKM0011
3290	3520	7%	BKM0025
2340	2190	7%	BKM0007
2070	1940	6%	BKM0050
5270	5620	6%	BKM0042
2260	2120	6%	BKM0055
4590	4310	6%	BKM0043
3530	3340	6%	BKM0031
5720	6040	5%	BKM0035
3800	3620	5%	BKM0038
42500	40500	5%	BKM0040
6940	7270	5%	BKM0045
8440	8060	5%	BKM0041
13100	13700	4%	BKM0040

Figure 13: Coarse Crush and Split Duplicate Analysis.

H&A has undertaken the following evaluation of the later batches to establish reasons for the poor repeatability in coarse crush duplicate samples:

- Discussed issue with ITS who then:
  - Confirmed that no prep equipment, procedures or personnel changes have taken place at any time over the duration of the KSK work.
  - Re-assayed coarse crush duplicate pulps and “duplicated” results of original assays, confirming discrepancies in Cu grades between original and duplicate portions of samples.
  - Retrieved coarse rejects from adjacent intervals (to duplicated samples), generated coarse crush duplicates and established that grades of these duplicates portions are comparable.
  - Screened pulps of the poor duplicates and established that Cu grades of the fine and coarse fractions are comparable (with coarse fraction being marginally lower grade, reason unknown, but likely due to loading-bias of silicates in coarse material fraction).

  - Observed fine shiny filaments within the plus portion of the screened samples and shiny flecks within the minus portion of the screened samples.
  - Are now undertaking a programme of isolating and analyzing the filaments and of photographing the filaments at higher magnification in an effort to establish their makeup.
- H&A further reviewed the QC data, multi-element assay data and core photos and established that:
  - There is nothing unique in the duplicate samples’ multi-element geochemistry from that of adjacent samples.
  - Ag, As Fe, S and Sr show a similar relationship between the duplicate pairs as that observed for Cu.
  - The laboratory second sample from pulps and laboratory repeat of pulps, where assayed, compare with the original assays of either duplicate (depending on which of the duplicate pair samples were selected for repeating by the laboratory).
  - There is nothing noticeably different in the lithology, alteration or mineralisation about the duplicate samples from other mineralised intervals in the deposit (observable from the core photos)
  - The duplicate samples issue is not related to the weathering or oxidation profiles.
  - The holes whose assays are questioned with regard to the poor repeatability of the coarse crush and split duplicates are located primarily within the central section of the mineralised area (Figure 14).

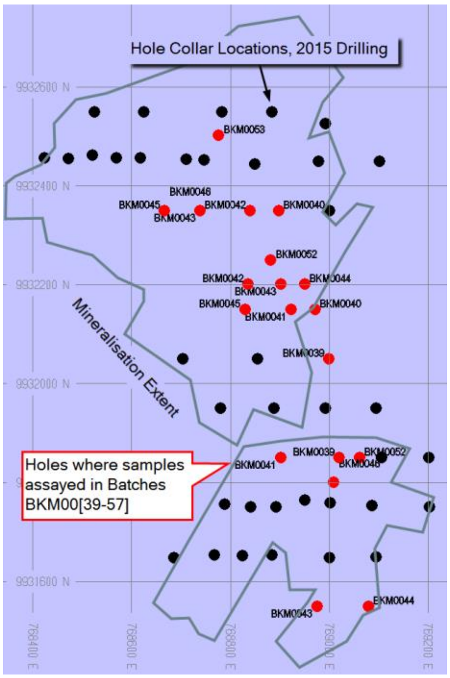


Figure 14: location of holes affected by batches recording poor copper assay repeatability in coarse crush and split duplicates.

The investigation into the cause of the poor repeatability of copper assays in the coarse crush and split is continuing at the time of preparing this resource report. At this stage of the investigation it appears that the poor copper assay repeatability in the coarse crush and split duplicates is caused by the presence of a yet to be identified shiny material in the form of filaments and fine flecks. ITS suspects that this material is metallic (native copper) that has stretched and fragmented during pulverizing. H&A concurs that the presence of native copper is a likely reason for the poor repeatability (supported by the observations in the multi-element assays and the clustering of holes where the issue occurs). The absence of any visual logging of copper, any detected smearing or carry-over between samples (coarse blanks analysis) and the late appearance of and random nature of the poor repeatability in the duplicates indicates that there may be other reasons for the issue (such as external contamination). H&A is awaiting results of further analysis and identification of the material forming the filaments which should allow confident identification of the reason for poor repeatability of the duplicate assays.

There is a low to moderate risk to the 2015 resource estimate associated with the uncertainty in establishing a reason for the poor copper grade repeatability in coarse crush and split duplicate assays and determining the extent and impact of the issue wrt assay reliability and resource copper grade. The key reasons for considering the risk at this level are:

- If the reason for issue is due to the presence of native copper:
    - The intensity and extent of this occurrence is likely to be restricted (relative to the amount and location of drilling) as native copper is yet to be identified in core.
    - Substituting particles of chalcocite (79.9%Cu) or covellite (66.5%Cu) with native Cu (100%Cu) within sulphide veins would not significantly alter the grade of samples as the relative difference in copper contents of these materials are small (wrt deposits such as gold where the impact of nuggets on an interval's grade is considerably higher and of material concern to establishing reliable grades).
    - At present 24% of duplicate samples (with grades greater than 0.2%Cu) show precisions greater than 5%MPD (average 15%) and 12% show precisions greater than 10%MPD, indicating that either native copper is not a common occurrence or that if it is then comminution and analysis of native copper is not commonly an issue.
- If the reason for the issue is laboratory or alternative:
    - Is most likely to be an accidental or hygiene issue as sample security and chain of custody protocols minimize the opportunity for deliberate tampering with samples.
    - As stated above, the intensity and extent of the issue indicates that this is not a common occurrence.
- Global comparison of assay datasets:
    - The good statistical comparison of assay datasets from the three main drilling regimes indicate that the issue does not materially impact on the reproducibility of a global dataset suitable for estimating global copper resources at BK.

12.2.3.3 2015 Umpire Laboratory Check Assays

45 mostly mineralised samples were selected from batches BKM00[3-24,26] whose QC analysis showed any issues that warranted checking at an umpire laboratory (N.B. QC for these batches showed no material issues wrt undertaking and classifying the 2015 copper resource estimate). Four standards and three pulp blanks were included in the inter-laboratory check batch and dispatched to PT GeoAssay Laboratory, Jakarta (GA) where copper <1.0% was assayed by method GAI03 (0.5g charge, 3 acid digest, ICP-OES determination) and copper >1.0% assayed by method GOA03 (1.0g charge, 3 acid digest, AAS determination).

The following copper check assays were generated from the 45 samples:

- 54 coarse crush reject assays to compare ITS copper results with GA copper results and further assess the comminution at -2mm crush size. These duplicates were selected from those batches where the ITS coarse crush and split duplicates reported between 3% and 8% mean paired differences. 50 of the 54 comparisons were selected from mineralised samples (>0.2%Cu). There are three comparisons to be made from the 54 pairs, these are:
    - 34 direct comparisons through submitting total reject material to GA (GA pulverized and analyzed samples)
    - 12 50:50 riffle splits of coarse reject material (undertaken at ITS) and submitted "blind" to GA (GA pulverized and analyzed samples). Generating an internal GA coarse crush and split dataset for comparison with the ITS:GA dataset.
    - Pulps from 8 of the 48 above mentioned samples were also submitted, generating a further 8 comparisons of comminution at -2mm crush size.
- 39 inter-laboratory pulp repeat assays to compare ITS copper results with GA copper results to assess the robustness of the ITS analytical protocols and practices. These pulps were selected from batches where base-shifts, trends and abrupt corrections were noted in the standards QC analysis. 33 of the 39 pulps were selected from mineralised samples (>0.2%Cu). (NB. There was no consideration in preserving the original sample material integrity in storing rejects and pulps at ITS. Oxidation of sample may affect the repeatability of assay results.)

There are no discernible issues wrt the GA copper assays detected from the standards and blanks inserted into the inter-laboratory check batch or from the 7 lab pulp repeat assays undertaken by GA. Internally it is considered that the GA copper assays are reliable.

Figure 15 and Figure 16 present the comparison between the ITS copper assays ("Original") and GA assays ("Duplicate"). Of note:

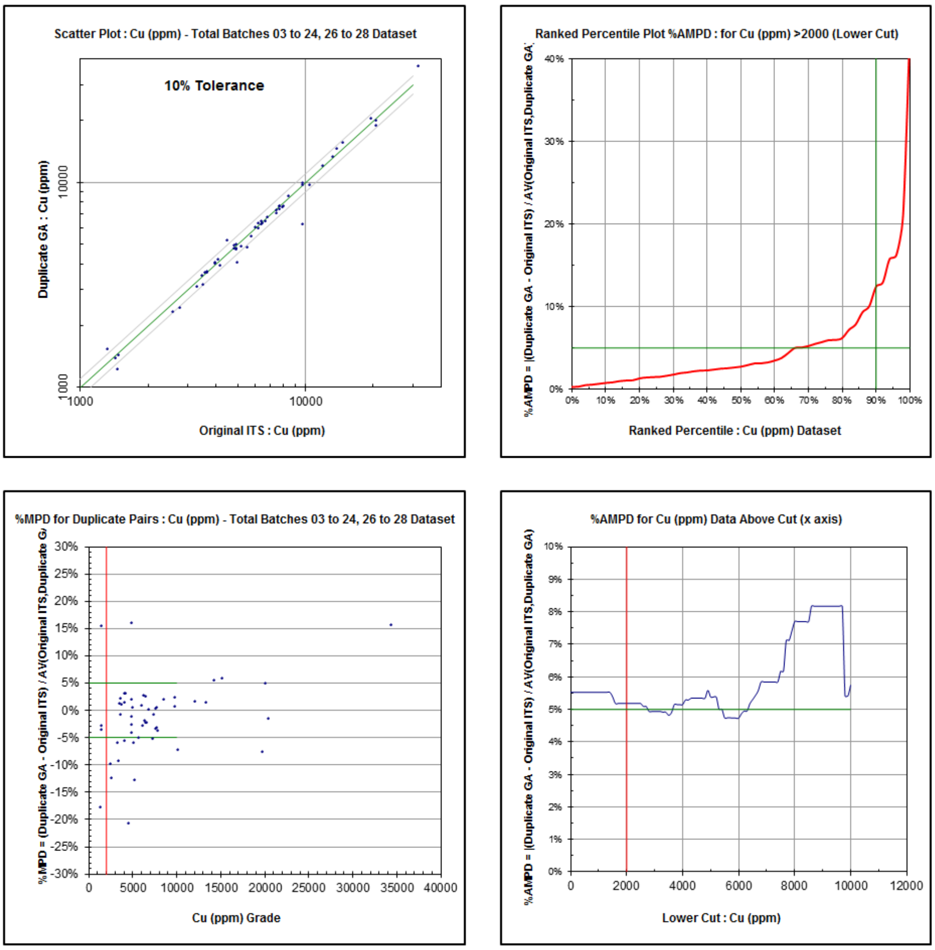
- 12 of the 54 coarse reject check assays show variance of >5%MPD with 5 of these showing >10%MPD. There is a weak negative relative bias in the GA assays for copper assays <10,000ppm.

- 16 of the 39 pulp check assays show variance of >5%MPD with 3 of these showing >10%MPD. There is a negative relative bias in the GA assays for samples assaying <10,000ppmCu.

Although the inter laboratory assay checks do not show excellent repeatability with the ITS assays, they support the robustness of the original ITS assays and further increase the belief that the ITS assays are robust and reliable for use in estimating copper mineralisation at BK. Of note, when assessing the correlation:

- GA report's copper assays <10,000ppm by method GAI03 and >10,000ppm by GOA03. ITS utilizes a threshold of 100,000ppm for reassaying of samples by their ore grade method. The relative bias between assays from the two laboratories is only observed in the samples assaying <10,000ppmCu suggesting that GA is returning low values for these samples. The four standards submitted with the batch to GA do not show low assays, suggesting that even though GA is capable of returning reliable assays, they may not have been able to do so for the BKM samples at this time (NB. There is no detectable bias or issue in GA assays from the pre-2015 drilling as shown in Figure 8.)
- It is likely that the coarse crush duplicate issue discussed in Section 12.2.3.2 is observable in the -2mm coarse reject comparison.
- Sampling by GA of the -2mm coarse reject material will produce a similar sample to the original split taken for preparation by ITS, however theoretically the two samples are different and this difference may account for some of the features observed in Figure 15.

Cu (ppm) - BKM Inter-laboratory Check Assays - Minus 2mm Coarse Reject Material - 2015 : Batches 03 to 24, 26 to 28



Summary Statistics

Total Dataset - Batches 03 to 24, 26 to 28

Count (Pairs) :	54
Av. Grade - Cu (ppm) :	7334.45
Av %MPD :	-2.0%
Av %AMPD :	5.5%

Data >2000 Cu (ppm) - Batches 03 to 24, 26 to 28

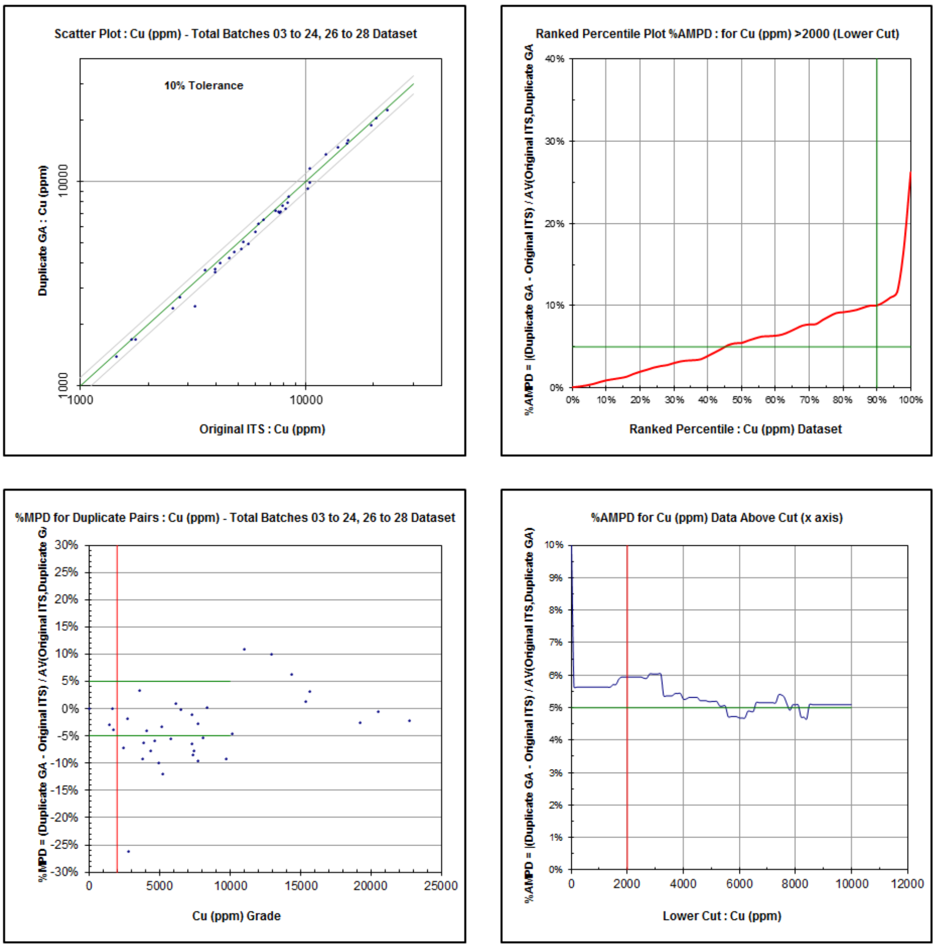
Count (Pairs) :	50
Av. Grade - Cu (ppm) :	7808.62
Av %MPD :	-2.0%
Av %AMPD :	5.2%

Top 30 Pairs (%AMPD) : >2000 Cu (ppm)

Original ITS	Duplicate GA	%AMPD	Batch
9740	6287	43%	BKM0011
4980	4047	21%	BKM0024
4470	5250	16%	BKM0011
31600	37000	16%	BKM0024
5490	4835	13%	BKM0024
3490	3181	9%	BKM0019
20500	19000	8%	BKM00QC01
10400	9685	7%	BKM0003
3290	3099	6%	BKM0025
5200	4899	6%	BKM0008
14700	15600	6%	BKM0008
13800	14600	6%	BKM0003
4170	3949	5%	BKM0019
7424	7052	5%	BKM00QC01
5740	5459	5%	BKM0003
19500	20500	5%	BKM0024
4899	4705	4%	BKM00QC01
7950	7668	4%	BKM0003
7680	7424	3%	BKM0019
3949	4075	3%	BKM00QC01
4080	4210	3%	BKM0011
7860	7620	3%	BKM0003
6140	5973	3%	BKM0003
6170	6339	3%	BKM0025
6339	6503	3%	BKM00QC01
4899	4777	3%	BKM00QC01
9685	9925	2%	BKM00QC01
3560	3642	2%	BKM0008
6600	6452	2%	BKM0003
6452	6309	2%	BKM00QC01

Figure 15: Inter laboratory check copper assay analysis; minus 2mm coarse reject material.

Cu (ppm) - BKM Inter-laboratory Check Assays - Pulp Material - 2015 : Batches 03 to 24, 26 to 28



Summary Statistics

Total Dataset - Batches 03 to 24, 26 to 28

Count (Pairs) :	39
Av. Grade - Cu (ppm) :	7295.74
Av %MPD :	2.2%
Av %AMPD :	10.8%

Data >2000 Cu (ppm) - Batches 03 to 24, 26 to 28

Count (Pairs) :	33
Av. Grade - Cu (ppm) :	8474.58
Av %MPD :	-3.8%
Av %AMPD :	5.9%

Top 30 Pairs (%AMPD) : >2000 Cu (ppm)

Original ITS	Duplicate GA	%AMPD	Batch
3210	2466	26%	BKM0004
5580	4952	12%	BKM0007
10400	11600	11%	BKM0016
12300	13600	10%	BKM0009
5200	4705	10%	BKM0008
8110	7373	10%	BKM0007
10200	9298	9%	BKM0016
3950	3605	9%	BKM0028
7680	7052	9%	BKM0019
7740	7164	8%	BKM0003
4560	4221	8%	BKM0004
2570	2393	7%	BKM0008
7580	7101	7%	BKM0024
3980	3737	6%	BKM0007
13900	14800	6%	BKM0009
4810	4533	6%	BKM0004
5990	5671	5%	BKM0009
8330	7892	5%	BKM0004
10400	9925	5%	BKM0003
4170	4006	4%	BKM0019
5270	5094	3%	BKM0028
3560	3681	3%	BKM0008
15400	15900	3%	BKM0009
7860	7644	3%	BKM0003
19500	19000	3%	BKM0024
23000	22500	2%	BKM0028
2760	2710	2%	BKM0003
15300	15500	1%	BKM0028
7330	7250	1%	BKM0003
6170	6225	1%	BKM0025

Figure 16: Inter laboratory check copper assay analysis; pulp material.

12.2.4 Comparison of Copper Assays; 2015 with pre-2015

The 2015 copper assays can be combined with the pre-2015 assays for estimating grades at BKM as they show the comparable population distributions (Figure 17).

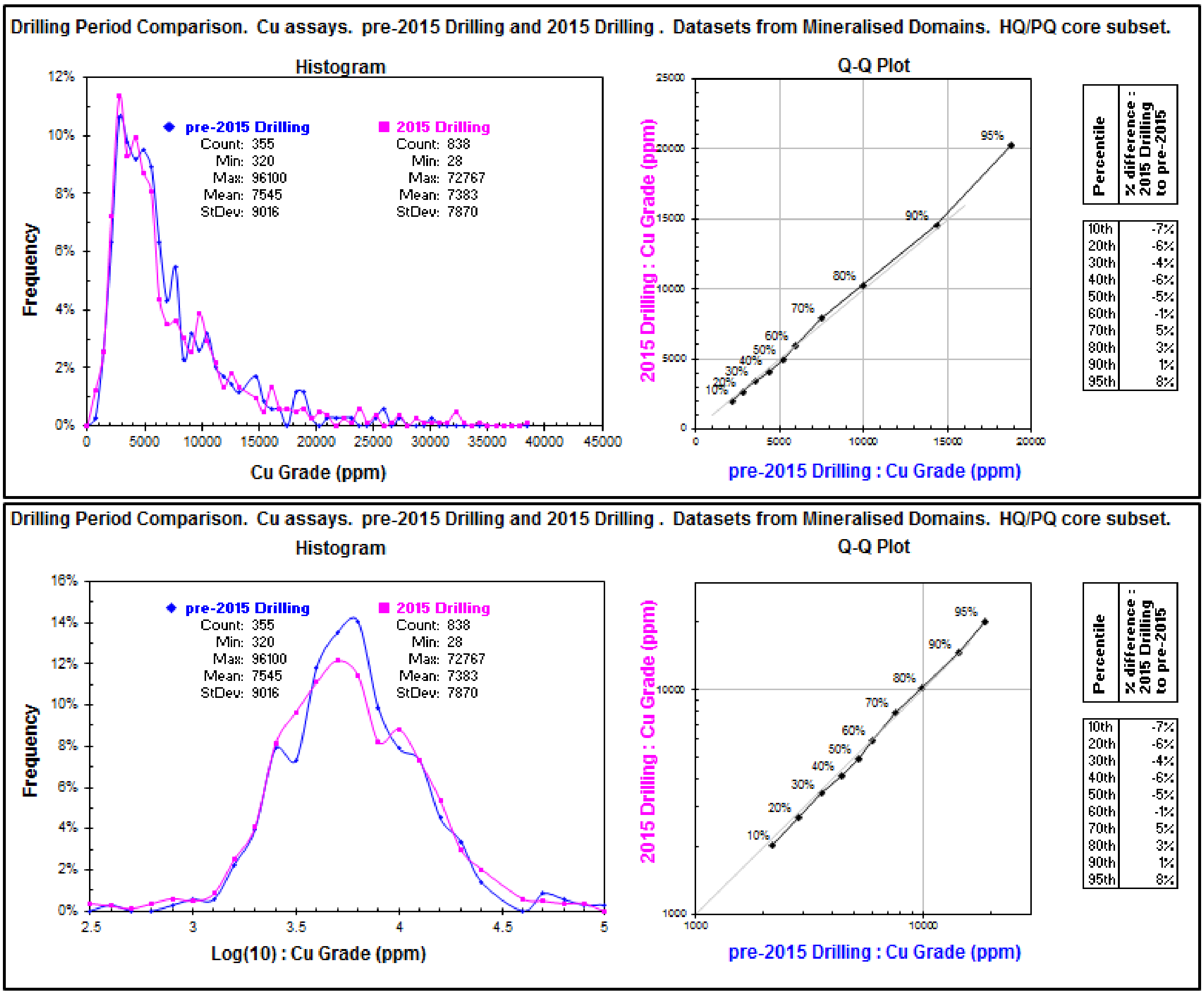


Figure 17: Comparison of 2015 and pre-2015 copper dataset populations.

12.2.5 Copper Grade Relationship with Core Recovery

Core recoveries by length are good for the BKM mineralisation with over 90% of the intervals within the mineralised domains returning >90% recovery (Table 20). There is also no observed relationship between length recovery and copper grade. H&A observed minor occurrences of washing or scrubbing of core from the drilling and core sawing processes and although not measured, the scrubbing is likely to impact on copper grade as the soft covellite and chalcocite will preferentially wash away over more resilient minerals such as pyrite and quartz. It is anticipated that this action will reduce the copper content in the assay sample, though core photo observations indicate any effect will be minimal.

Table 20: Copper grades split by recovery categories. a.) pre-2015 drilling. b.) 2015 drilling.

a.

Logged Core Recovery within domained mineralisation		
Core Recovery (%)	Count	Av. Cu grade (ppm)
0 to 10	5	12120
10 to 20	6	5250
20 to 30	14	4605
30 to 40	13	5994
40 to 50	26	4702
50 to 60	16	6791
60 to 70	23	5904
70 to 80	24	5905
80 to 90	37	7197
90 to 100	997	6918
All	**1161**	**6810**

b.

Recovery (%)	Percent of Dataset	Av drill run-length (m)	Av Cu Grade (%)
0 to 10	0.1%	1.00	5900
10 to 20	0.1%	0.13	400
20 to 30	0.2%	0.17	4133
30 to 40	0.7%	0.23	2400
40 to 50	0.5%	0.29	4790
50 to 60	1.4%	0.31	3707
60 to 70	1.0%	0.33	5600
70 to 80	2.3%	0.43	9402
80 to 90	2.0%	0.64	10950
90 to 100	91.8%	1.21	7703
Total	**100%**	**1.1**	**7665**

12.2.6 Copper Grade Relationship with Primary Sample Orientation and Size

The analysis of copper grade versus the primary sample size shows that the average grade for NQ-BQ drill core samples is 26% lower than the average grade for the PQ-HQ drill core samples. Figure 18 shows that this is because there is a population shift in copper grade-tenor of approximately this amount between the two datasets. The PQ-HQ dataset also shows a greater range of copper values and a higher maximum value. A population shift such as the one shown in Figure 18 can be due to one or both of the following:

- PQ and HQ drilling samples mineralisation closer to the surface than NQ and BQ drilling (average depths are shown at Table 3). The grade differential may be due to primary zonation within the BKM mineralisation.
- The (relatively) thin and low density copper mineralisation veining intersected in the BKM drilling can be considered similar to results anticipated from nuggetty gold mineralisation (though not as severe). In these cases the most common effect of decreasing the primary sample size is to decrease the assay grades to levels less than the actual grade of the mineralisation being sampled. It is unknown if this is happening at BKM, however H&A suspects that it is likely (especially if the copper mineralisation is not related to supergene events) and that the estimated copper grade of the deposit may be compromised by the NQ and BQ drilling.

All drilling in the 2015 programme was undertaken employing HQ triple tube diamond core. The same baseshift in copper assays is observed when comparing the 2015 copper assays with the pre-2015 NQ-BQ sample assays. There is a good comparison with the pre-2015 PQ-HQ core sample copper assays and the 2015 copper assays (Figure 17).

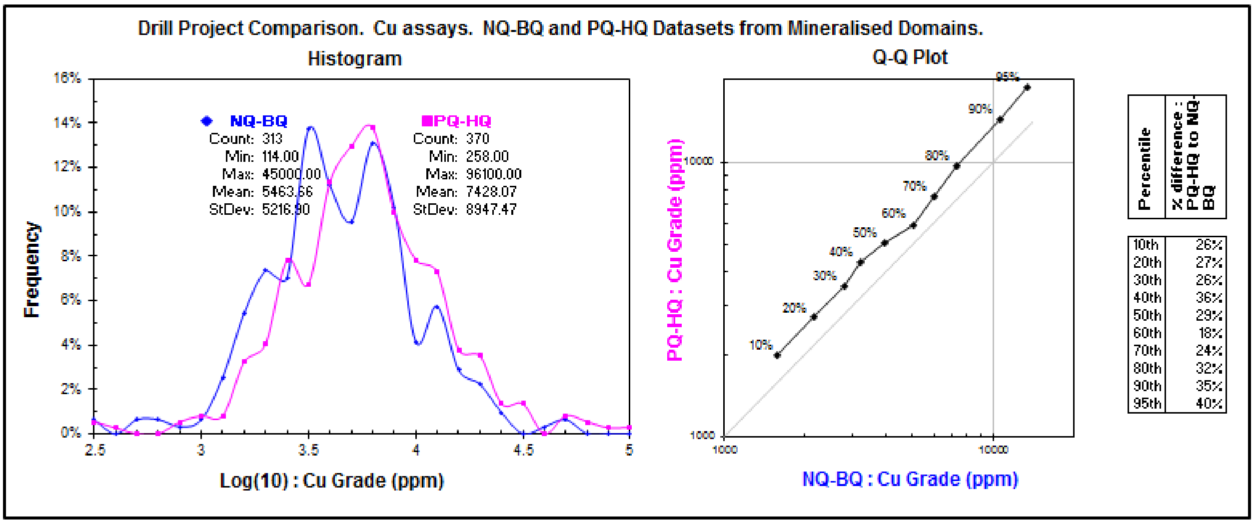


Figure 18: Copper grade comparison between PQ-HQ drilling and NQ-BQ drilling (pre-2015 data).

All holes that intersect mineralization are drilled westerly except BK-02, BK044-02, KBK-0023 and KBD03-02 which are drilled to the east and BK-01, BK-04 and BK-06 which are vertical holes. There is no discernible copper grade differential between easterly and vertical holes and those drilled towards the west. The small number of available easterly and vertical holes is not a good sample size to determine what the ideal drilling direction will be for generating a robust resource estimate at BKM. Further work is required in investigating optimum drilling directions throughout the mineralization.

12.2.7 Tonnage Factor Determination

The 2015 DBD measurements were used to determine tonnage factors for the 2015 resource estimate. Four domains were employed to stamp DBD values onto the block model for the 2015 resource estimate. These are:

- mineralised domains within 17m of surface (or 20 downhole from collar) = 2.70t/m^3
- mineralised domains > 17m deep = 2.85 t/m^3
- non-mineralised material within 17m of surface = 2.33 t/m^3
- non-mineralised material deeper than 17m = 2.77 t/m^3

In determining the tonnage factors the data was coded as follows and assessed (Table 21):

- Being within or beyond 17m vertically from surface (20m downhole),
- within and outside of the resource grade domains (>0.2%Cu threshold) and
- the sample having been dispatched to the laboratory for drying (porous and permeable samples, water soaking) or as having been determined for DBS on site without drying (competent and sealed core).

The 17m vertical split was established by visible observations from the dataset and core photos and it can be seen from the average DBDs for the lab dried core (Table 21) that significantly lower values are recorded from samples within the shallow zone than those from the deeper zone. Although the 17m divider will not fit throughout all areas of the deposit it is considered a reasonable estimation of the change between material affected by surface weathering (and other processes) and the better preserved material at depth.

The surface "base_2-70_DBD_2015.00t" and mineralised domains were utilized to assign tonnage factors into the 2015 BKM block model.

Table 21: DBD and tonnage factor evaluation.

Classification		Within Mineralised Domains		Outside of Mineralised Domains	
Sample Depth Range	Core Condition	Number of Samples	Average DBD	Number of Samples	Average DBD
Within 17m of Topo Surface	Lab Dried (water soaking)	43	2.30	110	1.96
	Non-water soaking	99	2.88	112	2.69
	Combined	**142**	**2.70**	**222**	**2.33**
Deeper than 17m from Topo Surface	Lab Dried (water soaking)	69	2.63	206	2.64
	Non-water soaking	524	2.88	590	2.81
	Combined	**593**	**2.85**	**796**	**2.77**
All Samples		**735**	**2.82**	**1018**	**2.67**

13 Mineral Processing and Metallurgical Testing

Preliminary metallurgical testwork was started by KSK earlier this year and initial results reported to the market by press release dated 17 July, 2015. This work is ongoing and being undertaken by ITS Jakarta. The work was recently reviewed by Graeme Miller of Miller Metallurgical Services Pty Ltd, Brisbane, Australia (review report pending). Miller Metallurgical Services (MMS) has been active in copper heap leaching, solvent extraction and electro-winning ("SX-EW") studies, design and operation for over 20 years and has been selected by KSK to oversee the metallurgical studies of the upcoming PEA. MMS confirms KSK statements in their 17 July 2015 release and reports of the initial metallurgical testwork by ITS and of the BKM mineralisation (KSK personnel, pers. comm.), that:

- Sequential copper assay analysis, agitated leach, bottle roll and floatation tests have been completed.
- Column leach test results are still underway.
- Test results to date on one 90kg sample considered to be representative of the majority of deposit geology and mineralisation style, grading 0.9%Cu, show that BKM mineralisation is/has:
    - Mineralogy suitable for a microbial acid/ferric leach regime.

- Potential for high copper recoveries with >95% acid + cyanide soluble copper.
- Very low acid consumption.
- Supporting evidence to be nett acid producing.
- Low/positive acid balance which will facilitate long term heap leaching without reaching an economic limit. Thus potentially allowing higher recoveries to be achieved.

MMS concludes that further work is required with appropriate protocols to provide quantitative results for metallurgical design.

KSK reported to the market that "preliminary agitation, bottle roll and short column tests will be repeated to more closely simulate the acid-ferric bacterial leaching conditions" anticipated as the ideal process for BKM ore. Core Resources (Australia) has been commissioned to undertake this work. Samples are currently in transit from Indonesia and KSK expects testwork to commence in December 2015.

KSK and H&A interpret from the initial testwork and from MMS's advice that globally the BKM mineralisation will respond favorably to microbial acid/ferric leaching processes; however there may well be local variation in leaching dynamics dependent on relative chalcopyrite content and its response to galvanic leaching. Metallurgical testwork by KSK is continuing, results of which are anticipated as being available and reported in Q1 2016 as part of the initiated Preliminary Economic Assessment Study.

14 Mineral Resource Estimates

The BKM 2015 mineral resource estimate was undertaken utilizing Minesight™ software for domaining and Vulcan™ software for block modeling and grade interpolation. This section lists the processes and parameters used in generating the estimate.

14.1 Resource Domaining

The methods involved in identifying and generating the copper grade interpolation domains is outlined in Section 12.2.2. These domains and details are listed in Table 22. The domain triangulations are grouped according to their composite search ellipsoid parameters (Figure 19).

The domains have been utilized as hard boundaries for copper grade interpolation in the BKM 2015 Resource Estimate.

Table 22: Resource domain TIN files, block model coding details and composite search parameters for copper grade interpolation.

Triangulation	BM Variable	Value	Priority	Z Axis Inversion	Composite Search Ellipsoid		
					Bearing (Z)	Plunge(Y)	Dip (X)
29_060_Solid_min_1.00t	estdom	60	1	None	60	-30	-15
29_060_Solid_min_2.00t	estdom						
29_060_Solid_min_3.00t	estdom						
29_060_Solid_min_4.00t	estdom						
29_060_Solid_min_5.00t	estdom						
29_060_Solid_min_6.00t	estdom						
29_060_Solid_min_7.00t	estdom						
29_060_Solid_min_22.00t	estdom						
29_060_Solid_min_23.00t	estdom						
29_060_Solid_min_24.00t	estdom						
36_095_Solid_min_8.00t	estdom	95	1	None	95	-36	0
36_095_Solid_min_9.00t	estdom						
36_095_Solid_min_10.00t	estdom						
22_030_Solid_min_19.00t	estdom	30	1	None	30	-22	0
22_030_Solid_min_20.00t	estdom						
22_030_Solid_min_21.00t	estdom						
22_030_Solid_min_25.00t	estdom						
40_025_Solid_min_16.00t	estdom	25	1	None	25	-40	0
40_025_Solid_min_17.00t	estdom						
40_025_Solid_min_18.00t	estdom						
22_017_Solid_min_11.00t	estdom	17	1	None	30	-22	-10
22_017_Solid_min_12.00t	estdom						
22_017_Solid_min_13.00t	estdom						
22_017_Solid_min_14.00t	estdom						
22_017_Solid_min_15.00t	estdom						
Trim_BM.00t	estdom	3	3	Complete	*Utilised to remove distal blocks from BM*		
DTM-BK-Lidar_C.00t	estdom	2	2	Partial	*Utilised to clip domains at topo*		

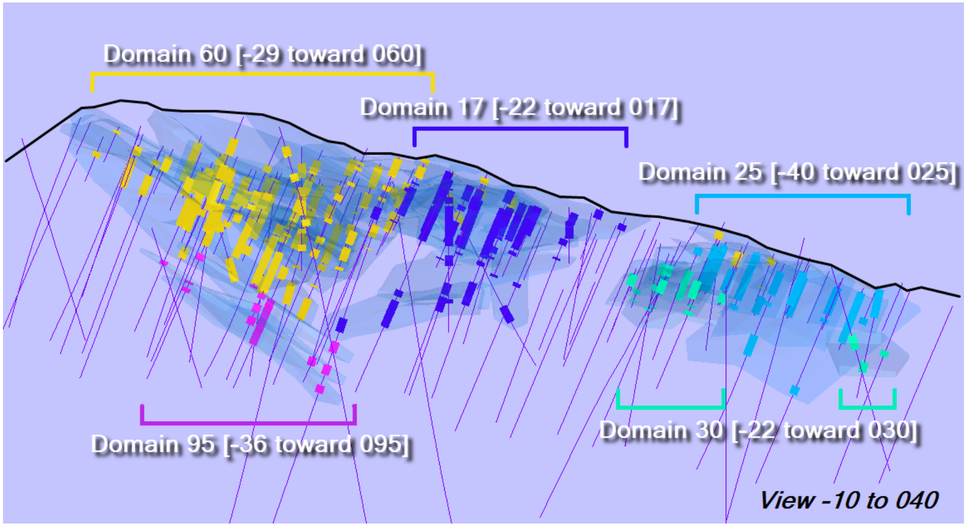


Figure 19: Mineralisation Domains. View in dip direction.

14.2 Copper Assay Compositing

Compositing was undertaken utilizing the Vulcan^{TM} run-length routine. Composites were checked visually on screen and against original sample intervals/grades to ensure that domain contacts and sample interval breaks were honoured.

The nominal primary sample interval of 3.0m dictates that the compositing interval cannot be less than this length. The BKM 2015 Resource Estimate is underpinned by 1,672 mathematical composites within mineralised domains and designed to have a nominal length of 3m. 152 of these composites are less than three metres in length, with 34 being less than one metre in length. The 34 short composites (<1m) were checked against the original assay dataset which confirmed that compositing had been undertaken as intended. The short composite intervals are the result of the irregular original sampling intervals where the compositing routine generates a remainder-interval to accommodate the additional sample lengths between the last 3m composite and the domain boundary. As there is no discernible copper grade differential across the mineralization (Table 17) the short edge-composites were not excluded from the composite dataset used for grade interpolation.

8006 nominal 3m composites are located outside of the mineralised domains.

The copper composite data distribution is shown in Figure 22. The population has a mean of 6844ppmCu.

14.3 **High Grade Copper Treatment**

A review of the copper composite data was undertaken to identify any outlier assays that may require consideration during grade interpolation. The 3m copper composites within mineralised domains were $\log_{10}$ transformed and plotted as a log-probability graph (Figure 20). A clear continuum in the graph between 1300ppm and 30000ppm copper supports the observations from core and made during resource domaining, that being, that the copper mineralization appears to be of the same event and that more intense veining leads to higher grades. The thirty composites with grades greater than 30000ppm that plot as outliers in the log-probability also plot spatially as individual and dual/triple samples. These outliers were selected for high-grade treatment during grade interpolation.

The high grade copper composites have been used uncut in grade interpolation however their area of influence has been restricted to a 50mX50mX25m volume surrounding their location (Table 23). This action will preserve high grades within the estimate and will reflect the geological reason for their presence (locally intense veining).

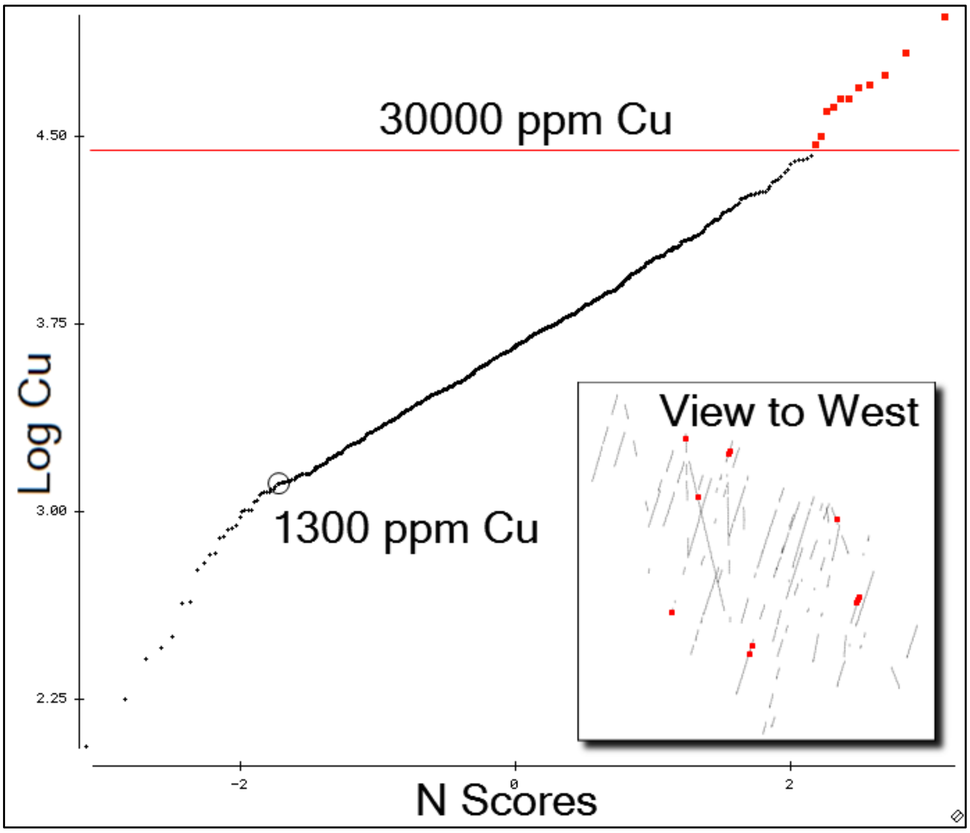


Figure 20: Log-probability plot, copper composites. High grade treatment threshold set at 30000ppm Cu.

As validation that 30000ppm Cu is a reasonable cut, three check interpolation runs were undertaken with restrictions set at 32000ppmCu, 42000ppmCu and at no-restriction. Swath plots presented at Figure 21 show that 30000ppmCu is a reasonable level to apply the restriction as only the unrestricted model shows any significant deviation of grade from the other trials and only on sections where drilling metres are low.

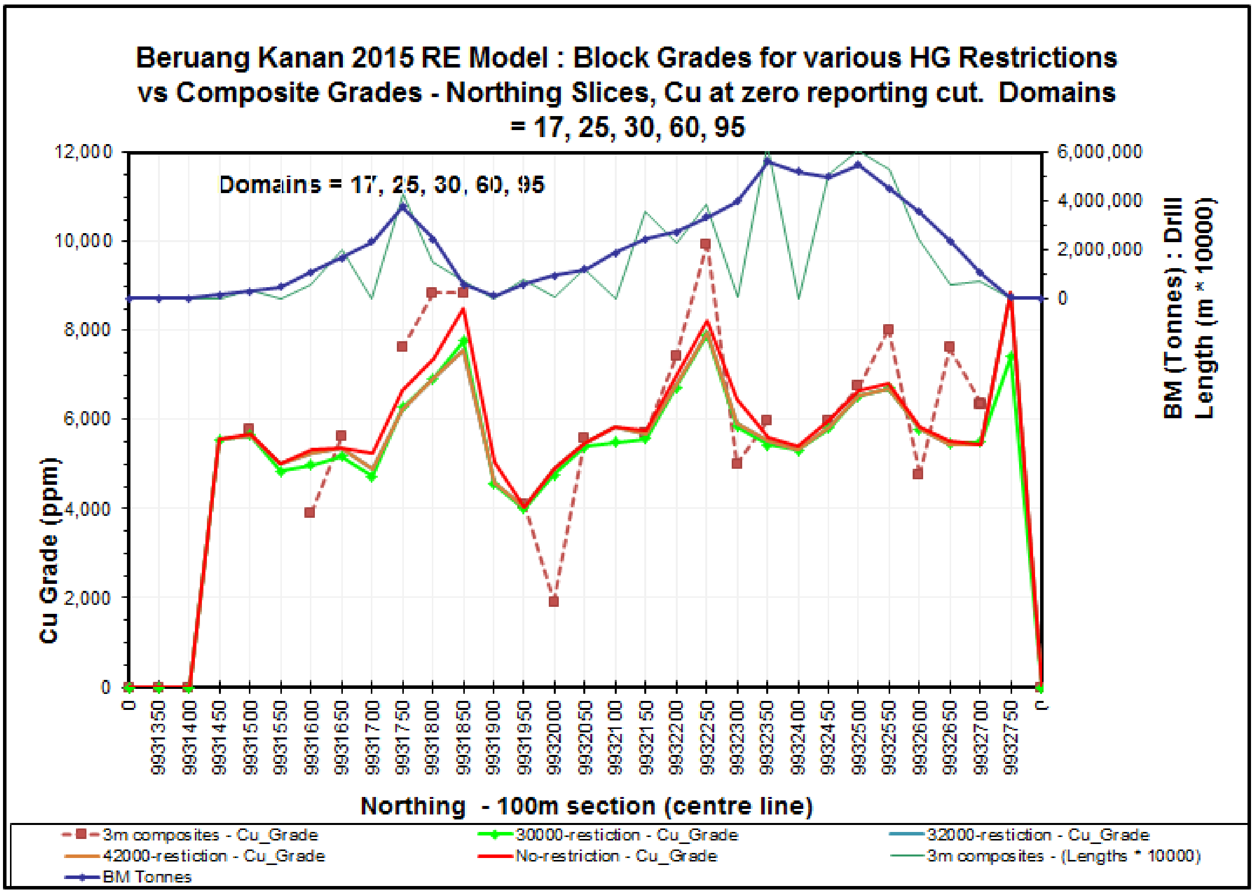


Figure 21: Swath plot of highgrade Cu restriction threshold trials.

14.4 Block Model Details

Details of the BKM 2015 Resource Estimate Vulcan™ block model are listed below. Domain triangulations and the block coding details are listed at Table 22.

```
Block Model Details

Model name          : BK_postestimate30000_Oct2015
Format              : extended
Structure           : non-regular
Number of blocks    : 172720
Number of variables : 12
Number of schemas   : 2
Origin              : 0.000000 0.000000 0.000000
Bearing/Dip/Plunge  : 90.000000 0.000000 0.000000
Created on          : Thu Oct 15 09:23:46 2015
Last modified on    : Thu Oct 15 09:23:46 2015
Model is indexed.

Variables       Default    Type       Description
-----------------------------------------------------
estdom          5          short      Estimation domains
cuid2           -99.0      short      Cu ppm ID2 estimate
flagid2         -99.0      short      flag if estimated in ID2 1pass 2pass 3outsidedoms
cuok            -99.0      short      Cu ppm OK estimate
flagok          -99.0      short      Flag if estimated in OK 1pass 2pass 3outsidedoms
kvar            -99.0      float      OK variance
numbsamp        -99.0      short      Number of composites OK
numbdhs         -99.0      short      Number of holes OK
avdist          -99.0      short      Av distance of selected samples OK
class           -99.0      short      Classification 2Indic 3infer 4potential
dbd             -99.0      float      DBD
base270dbd      -99        integer    base of 2.70 dbd 17m below topo surface

Schema <parent>
Offset minimum : 768300.000000 9931200.000000 100.000000
       maximum : 769250.000000 9932800.000000 600.000000
Blocks minimum : 25.000000 25.000000 10.000000
       maximum : 25.000000 25.000000 10.000000
  No of blocks : 38 64 50

Schema <subblock>
Offset minimum : 768300.000000 9931200.000000 100.000000
       maximum : 769250.000000 9932800.000000 600.000000
Blocks minimum : 5.000000 5.000000 2.000000
       maximum : 25.000000 25.000000 10.000000
  No of blocks : 190 320 250
```

14.5 Copper Grade Interpolation

Ordinary Kriging was employed as the copper interpolation method. The kriging neighborhood investigation and experimental variography report is included at Appendix 16. Key features of the mineralisation and domaining identified in the investigation are:

- The general consistency of copper grades within and between the domains
- All domains show comparable copper grade populations distributions, with the exception of:
    - domain 95 which has a clear positive base shift in grade tenor and
    - domain 25 which shows deviations at grades <2000ppm (greater percentage of population than other domains) and >20000ppm (also greater percentage of population than within other domains)
- Experimental semi-variograms were assessed for all domains combined and for domains 95 and 25 individually. One spherical structure fits all semi-variograms and primary directions reflect the overall geometries of the modeled domains.

Copper grade interpolation was undertaken in two passes for each domain, reflecting the block proximity to drilling data and block relationship with mineralization domains. Details of the runs are listed in Table 23. In summary:

- Pass 1: Within modeled mineralised domains and a search radius of 100mX100mX25m (runs ok017a, ok025a, ok030a, ok060a and ok095a). Composites within domains can inform blocks within domains, composites outside of domains are not used. Five search ellipsoids orientations are employed, each reflecting the overall geometry of the domains they best fit (as shown in Table 22 and Figure 19). A minimum of 5 and maximum of 24 composites are used to generate block grades. Octant search parameters are employed with a minimum of 6 octant to be informed before a grade is interpolated. Copper grades greater than 30000ppm are restricted to estimate blocks within a radius of 50mX50mX25m.
- Pass 2: Within modeled mineralised domains and a search radius of 200mX200mX50m (runs ok017b, ok025b, ok030b and ok095b) and 300mX300mX50m (run ok060a). All other parameters are the same as for Pass 1 except a maximum of 16 composites and minimum of 4 octants criteria is applied.
- Pass 3: Within modeled mineralised domains a relaxed run (okfill) was employed to fill blocks at the extremity of the model.
- Pass 4: Outside of modeled mineralised domains, sample selection of only those composites with greater than 2000ppm copper grades, outside of the modeled mineralised domains and within a search radius of 25mX25mX10m (run ok5a). All other parameters are the same as for the Pass 1 except a maximum of 10 composites applied and the octant search criteria removed.

Table 24 shows that grade interpolation process ran as planned with 98% of the blocks within the mineralised domains being estimated in passes 1 and 2 and 306 blocks estimated outside of the mineralised domains (pass 4).

Table 23: Copper Grade Interpolation - Estimation Run Details.

Criteria	Default for estimation runs (those not listed to right)	Specific to individual estimation runs	
		Estimation Run	Detail
Estimation_File	bkcuid2ok.bef		
Estimation Type	Ordinary Block Kriging		
Block Model	BK_postestimate30000_Oct2015.bmf		
Estimation Variable	cuok : Default value -99		
Composite_File	BKCU_3M.MAP		
Input Variable	CUPPM		
Composite Selection Criteria	Ignore default domain code values (-99)	ok5a	CUPPM >=2000 and GECOD = "5.000"
Maximum Number of Composites	10		
Minimum Number of Composites	5		
Sample Upper Cuts	not cut		
High Grade Cu Restriction Threshold	30000		
Restriction Major Axis (m) Within	50		
Restriction Semi-Major Axis (m) Within	50		
Restriction Minor Axis (m) Within	25		
Bearing (Rotation around Z): Composite Selection, High Grade Restriction and Kriging Structure 1		ok017a ; ok017b ; ok030a ; ok030b	30
		ok025a ; ok025b	25
		ok060a ; ok060b ; okfill ; ok5a	60
		ok095a ; ok095b	95
Plunge (Rotation around Y): Composite Selection, High Grade Restriction and Kriging Structure 1		ok017a ; ok017b ; ok030a ; ok030b	-22
		ok025a ; ok025b	-40
		ok060a ; ok060b ; okfill ; ok5a	-30
		ok095a ; ok095b	-36
Dip (Rotation around X): Composite Selection, High Grade Restriction and Kriging Structure 1		ok017a ; ok017b	-10
		ok025a ; ok025b ; ok030a ; ok030b ; ok095a ; ok095b	0
		ok060a ; ok060b ; okfill ; ok5a	-15
Composite Selection Ellipsoid Major Axis (m)		ok017a ; ok025a ; ok030a ; ok060a ; ok095a	100
		ok017b ; ok025b ; ok030b ; ok095b ; okfill	200
		ok060b	300
		ok5a	25
Composite Selection Ellipsoid Semi-Major Axis (m)		ok017a ; ok025a ; ok030a ; ok060a ; ok095a	100
		ok017b ; ok025b ; ok030b ; ok095b ; okfill	200
		ok060b	300
		ok5a	25
Composite Selection Ellipsoid Minor Axis (m)		ok017a ; ok025a ; ok030a ; ok060a ; ok095a	25
		ok017b ; ok025b ; ok030b ; ok060b ; ok095b	50
		okfill	200
		ok5a	10
Ordinary Kriging Model	Spherical - single structure		
Nugget	0.3		
Sill Differential	0.7		
Range - Major Axis	65		
Range - Semi-Major Axis	40		
Range - Minor Axis	30		
Composites required to make an estimate	Minimum 5 (except ok5a = 3)	ok017a ; ok025a ; ok030a ; ok060a ; ok095a	Maximum 24
		ok017b ; ok025b ; ok030b ; ok060b ; ok095b	Maximum 16
		okfill ; ok5a	Maximum 10
Octant base composite search (matches search elipsoid)		ok017a ; ok025a ; ok060a ; ok095a	Minimum of 6 octants filled ; min 1 max 4 comps per octant
		ok017b ; ok025b ; ok060b ; ok095b	Minimum of 4 octants filled ; min 1 max 4 comps per octant
Block Selection		ok017a ; ok017b	estdom eq 17 and FLAGOK lt 0
		ok025a ; ok025b	estdom eq 25 and FLAGOK lt 0
		ok030a ; ok030b	estdom eq 30 and FLAGOK lt 0
		ok060a ; ok060b	estdom eq 60 and FLAGOK lt 0
		ok095a ; ok095b	estdom eq 95 and FLAGOK lt 0
		okfill	estdom gt 6 and FLAGOK lt 0
		ok5a	estdom eq 5 and FLAGOK lt 0
Block Discretization	5X ; 5Y ; 2Z		
Estimation centroid	parent block centroid		
Flag if Estimated		ok017a ; ok025a ; ok030a ; ok060a ; ok095a	1
		ok017b ; ok025b ; ok030b ; ok060b ; ok095b	2
		okfill	3
		ok5a	4

Table 24: Copper Grade Interpolation - Estimation Run Performances.

Criteria	Estimation Run	Result
Selected Blocks	ok017a	11667
	ok017b	6675
	ok025a	6113
	ok025b	4581
	ok030a	4854
	ok030b	221
	ok060a	26754
	ok060b	12618
	ok095a	2661
	ok095b	1810
	okfill	1037
	ok5a	94762
Estimated Blocks	ok017a	4992
	ok017b	6516
	ok025a	1532
	ok025b	4324
	ok030a	4633
	ok030b	221
	ok060a	14136
	ok060b	12164
	ok095a	851
	ok095b	1643
	okfill	1017
	ok5a	306
Percent Estimated	ok017a	42.8%
	ok017b	97.6%
	ok025a	25.1%
	ok025b	94.4%
	ok030a	95.4%
	ok030b	100.0%
	ok060a	52.8%
	ok060b	96.4%
	ok095a	32.0%
	ok095b	90.8%
	okfill	98%
	ok5a	0.3%

14.6 Tonnage Factors

The tonnage factors were stamped onto the model according to the following:

- mineralised domains within 17m of surface (or 20 downhole from collar) = 2.70t/m^3
- mineralised domains > 17m deep = 2.85 t/m^3
- non-mineralised material within 17m of surface = 2.33 t/m^3
- non-mineralised material deeper than 17m = 2.77 t/m^3

The surface "base_2-70_DBD_2015.00t" and mineralised domains (Table 22) were utilized to assign tonnage factors into the 2015 BKM block model.

14.7 Model Validation

The resource block model coding was validated visually against both the mineralization domain models and the coded composites.

The copper grade interpolation was cross-checked against the composite data both statistically (Figure 22) and spatially on screen and by swath plots (Figure 23). An ID^2 check estimate and a composite selection methodology check estimate (octant search parameters removed) were generated and correlate well with the grade distribution of the BKM 2015 resource block model. The BKM copper grade interpolation strategy has produced a resource model that adequately reflects the grade distribution identified in the broad spaced drilling of the project area.

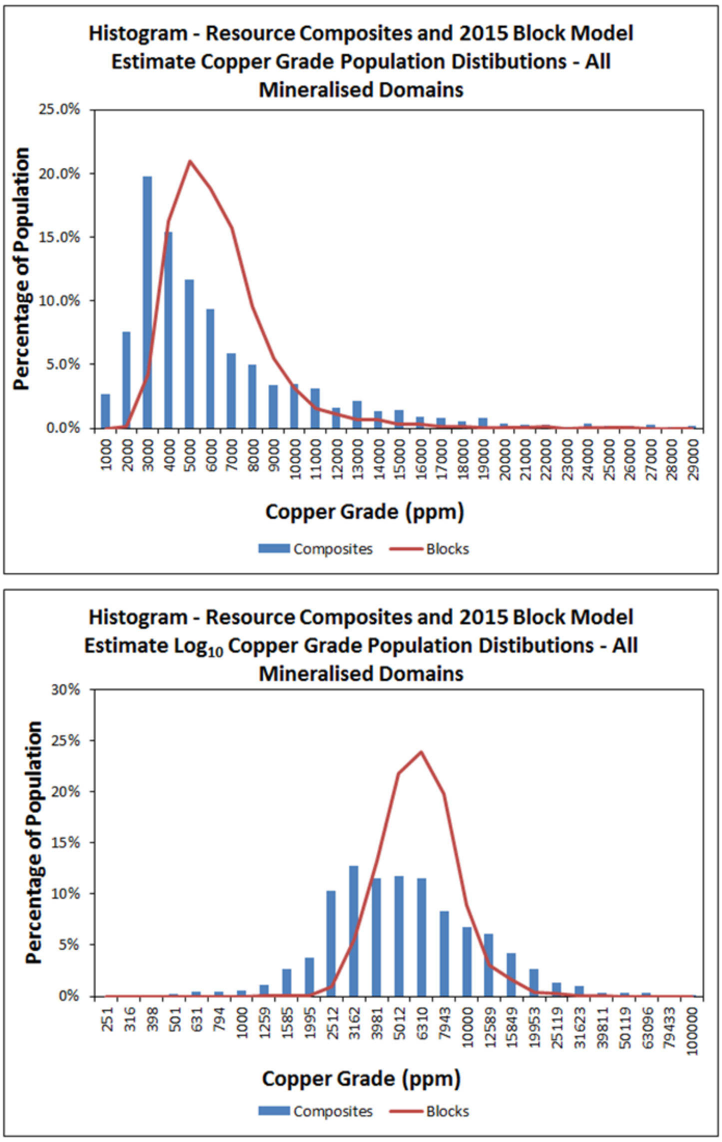


Figure 22: Histograms showing comparison between 2015 Resource Model Copper grades and Composite Copper grades.

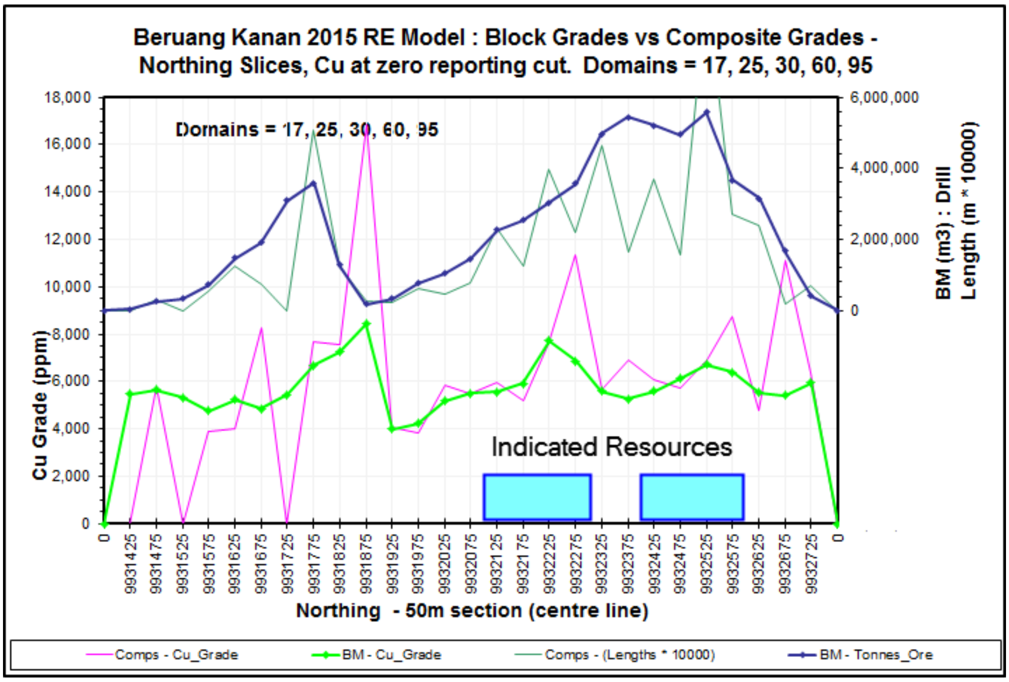


Figure 23: Block Model Validation. Northing Swath Plots.

14.8 Classification

The resources at Beruang Kanan as estimated in 2015, being the subject of this report, are classified as Indicated and Inferred Resources under guidelines set out in the Canadian National Instrument 43-101. The key considerations in assigning this classification are as follows and risk reduction associated with these criteria will assist with expanding the Indicated Resources and assigning higher classifications in future estimates:

- Moderate risk associated with the current drill spacing and orientation in reliably testing the/all mineralization style(s)
- Moderate to high risk associated with drill core diameters and primary sampling intervals suitability in dealing with the fundamental sampling errors anticipated with vein style mineralisation
- Moderate risk associated with the limited understanding in the geological and grade continuity of the mineralisation to guide domaining and inform modeling and interpolation design
- Low risk associated with the unknown suitability of the sample comminution and sub-sampling strategy employed by all workers
- Low risk associated with inability to directly validate historic data

Two areas in the central and northern reaches of the BKM mineralisation where overall mineralisation thickened and pre-2015 drilling suggested reliable continuity in both tonnes and grade were targeted for infill drilling in 2015. The 2015 infill holes confirmed as anticipated that grade and thickness in these areas was relatively well understood to the level that Indicated

Resource Classification could be considered. Two zones of mineralisation were modeled centred on these areas (Figure 24). The areas are confined to the thicker 2000ppm Cu interpolation domains and from:

- 9932090N and 9932290N; 768780E and 768950E
- 9932400N and 9932590N; 768610E and 768880E

Table 25 shows that copper grades for 90% of the Indicated Resources were interpolated in the first pass of the estimation runs. This pass has most stringent criteria in selecting samples for estimating block grades (Table 23) as reflected by the statistics listed in Table 25. In contrast 46% of Inferred resources were interpolated in the first pass of estimation runs.

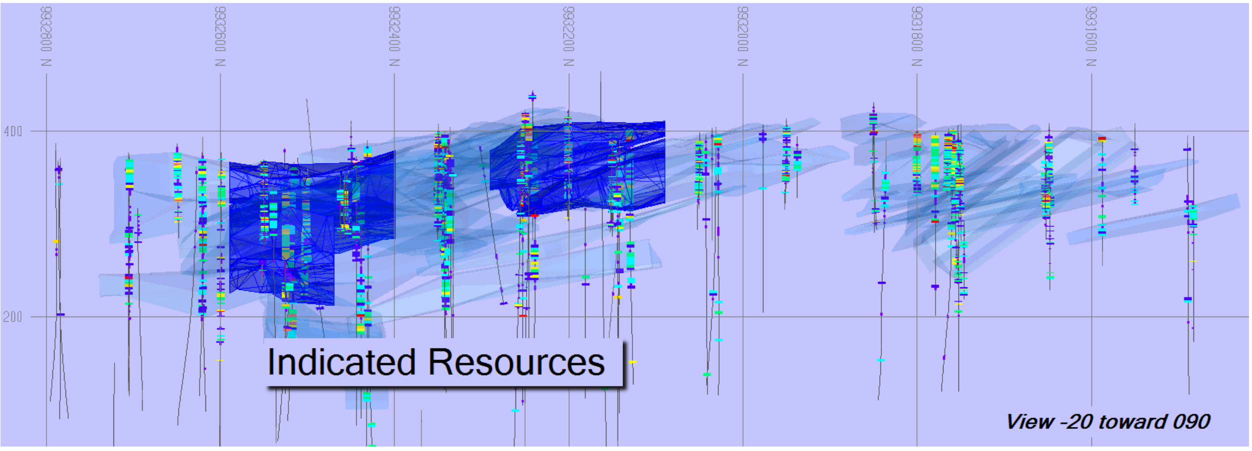


Figure 24: Location of Indicated Resources. Remaining mineralisation classified as Inferred Resources.

Table 25: Statistics on data selection criteria for Indicated and Inferred resources.

	Interpolated Cu grade (%)				Tonnes Estimated (MT)				Average Number of DHs in Estimate				Average Number of Composites in Estimate				Average distance to Composites in Estimate			
Interpolation Run Number	**1**	**2**	**3**	**Total**	**1**	**2**	**3**	**Total**	**1**	**2**	**3**	**Total**	**1**	**2**	**3**	**Total**	**1**	**2**	**3**	**Total**
Indicated Resources	0.7	0.6		**0.7**	13.6	1.5	0.0	**15.1**	4.7	4.2		**4.5**	23.6	16.0		**19.8**	47.4	56.0		**51.7**
Inferred Resources	0.6	0.5	0.5	**0.5**	23.1	23.9	2.7	**49.7**	4.5	4.0	1.3	**3.3**	22.1	15.9	5.2	**14.4**	60.8	79.7	42.3	**60.9**
Total	**0.7**	**0.6**	**0.5**	**0.6**	**36.7**	**25.4**	**2.7**	**64.8**	**4.6**	**4.1**	**1.3**	**3.7**	**22.9**	**16.0**	**5.2**	**16.6**	**54.1**	**67.9**	**42.3**	**57.2**

The Beruang Kanan 2015 Resource Estimate and Block Model are known at an Indicated and Inferred level of confidence (NI 43-101) at a global or overall scale. The Inferred resources are not suitable for any detailed studies or investigations requiring a high degree of local resource confidence (such as engineering or metallurgical studies) other than for the preparation of a Preliminary Economic Assessment Study and for planning purposes for programmes designed in improving local and global resource confidence or resource expansion.

The following details the technical areas considered in classifying the BKM 2015 copper resource estimate;

- Geological understanding (geological and copper grade continuity):

  KSK and joint venture workers have not (yet) undertaken sufficient work to fully understand the style(s) of mineralization at BKM. The geological and grade continuity is based on recent interpretations undertaken as part of this and the previous (2014) resource estimation processes. The core logging and other observations fit with the interpretation that mineralization is vein style and hosted mostly within a structurally complex zone (shear or thrust coupling/ramping/divergence). Of concern regarding confidence in the resource estimate is that:

  - Surface mapping does not recognize the interpreted major thrust directions of ~090 and ~110 degrees used in directing the overall geometry of mineralization.
  - The vein mineralization continuity is not understood and may be at orientations other than that described by the overall geometry of the mineralization.

- Drilling density and configuration:

  The drilling is mostly oriented at -60^{O} towards 270^{O} and at nominal 50m centres along 100m spaced grid lines over the main zone of mineralization (closing to 50m by 50m where Indicted Resources are classified). Of concern regarding confidence in the resource estimate is that:

  - There has been no investigation into attitude of the mineralised veins/vein-sets and therefor no evaluation as to the suitability of drill hole orientation wrt the mineralization.
  - The drill density is such that, given the vein-style mineralization hosting copper, the estimate can only be considered for classification at a global scale.

- Sample location:

  The collar locations of holes are considered well known. Down hole survey information is lacking for 30 of the 54 holes drilled into the BKM Main Zone mineralisation. Of concern regarding confidence in the resource estimate is that:

  - Although the locations of samples from half of the pre 2015 drill holes delineating the mineralization cannot be validated, the reasonable predictability of hole trace locations for those with survey information lends support to the reliability of hole traces defined by a single collar survey azimuth and declination. The 2015 drilling results support the earlier hole results indicating that collar location issues are likely to pose only a minor risk to the estimate. The sample locations are considered well enough established to consider the BKM resource estimate for classification at a global scale.

- Primary sample size:

  The mineralization has been tested with core drilled at sizes of PQ (3%), HQ (73%), NQ (18%), BQ (2%), with 4% of core sizes not recoded. Workers for the pre 2015 drilling have employed a nominal 3m sample interval (20% of samples within mineralisation) and a significant number of 2m intervals were sampled by workers in the 2015 drilling campaign (17% of samples within mineralisation). Of concern regarding confidence in the resource estimate is that:

  - There is an observed copper grade tenor shift of 26% between the NQ-BQ drill core samples (lower) and the PQ-HQ drill core samples. This may be due to natural grade variability throughout the mineralization or to the fundamental sampling error in dealing inherent heterogeneity of the mineralization. In general the fundamental sampling issue diminishes with increase in the primary sample size; therefor it is likely that the grade of the copper for the global resource estimate is negatively biased, if this issue exists.
  - The large primary sample size and the sample comminution and reduction process employed are not theoretically ideal (according to Gy's generalized sampling nomogram) however the relatively narrow band of copper assays within the mineralization suggests that any issues may not be of significance when the risk is assessed at the global scale.

- Sample preparation and assay:

  Large mineralised samples (2m and 3m lengths) were crushed to -4mm (3m samples) and -2mm (2m samples) before being sub-sampled to 1kg for pulverizing. All digests were conducted by 3 acid digest. Of concern regarding confidence in the resource estimate is that:

  - The sample comminution and reduction process employed are not theoretically ideal (according to Gy's generalized sampling nomogram) however the relatively narrow band of copper assays within the mineralization suggests that any issues may not be of significance when the risk is assessed at the global scale. The QC evaluation of the coarse crush and split duplicates undertaken during the 2015 drilling campaign uncovered possible native copper which appears to be poorly handled in the comminution and reduction process employed.
  - Three acid digests are akin to total digests. This is only an issue if copper silicates are present within the mineralization at BKM. There is one recording of the copper silicate, chrysocolla, in an early thin section report. More work is required on the copper mineralogy, however the assaying is acceptable for classifying the BKM resource at a global scale. In addition Three acid digests will give total copper content of samples. Sequential digests are required of mineralised samples to obtain recoverable copper assays for use in future resource estimates.

- Assay data quality:

  The 2015 assay QC programme and QC work undertaken by ENJ-KSK contains sufficient quality control samples to assess reliability of the copper assays. Earlier work by OX-KSK contained limited quality control samples and there were no quality control samples submitted with assays for the early work undertaken by KSK (pre 2002). Of concern regarding confidence in the resource estimate is that:

  - Quality control samples submitted with the 2015 KSK programme show that the copper assaying for this period is of acceptable quality for classifying global resources.
  - Quality control samples submitted with the ENJ-KSK programme show that the copper assaying for this period is of acceptable quality for classifying global resources.
  - Quality control samples submitted with the OX-KSK programme show that there may be issues with copper assays from early batches of their work, however only one hole is affected by this issue and therefor assays from this period are of acceptable quality for classifying global resources.
  - The copper assays data population from the early OX-KSK and early KSK work is comparable with the assay population from the 2015 KSK and ENJ-KSK work, leading H&A to conclude that, even though there is limited/no quality control on the early work, the copper assays from these periods are suitable for inclusion in the BKM 2015 Resource Estimate and acceptable for classifying global resources.

- Tonnage factors:

  Dry Bulk Density measurements were taken from core during KSK 2015 programme. Of concern regarding confidence in the resource estimate is that:

  - DBD measurements are reliable and suitable for estimating tonnages at BK. The use of a rudimentary surface (topography translated -17m) in defining the base of surface effects and applying lower tonnage factors to resources above this surface will add risk to the resource estimate however it is considered minimal wrt classifying global resources at BK.

- Resource copper grade interpolation:

  The copper grade has been estimated by ordinary kriging interpolation methods. Of concern regarding confidence in the resource estimate is that:

  - The resource estimate reconciles well with the source (composite) dataset and compares well with alternative estimates utilising ID^2 methodologies and various check high grade restriction and composite selection strategies. The copper grade interpolation strategies are robust for the BKM estimate and acceptable for classifying the resource at global scale.

14.9 Copper Resource Table and GT Curves

The Indicated and Inferred Copper Resource at Beruang Kanan is tabulated at

Table 26 and presented in the Grade-Tonnage curve in Figure 25.

The base case resource is reported at a 0.2% copper cut. 0.2% copper cut (following rounding to reflect confidence) approximates the cut value of 0.22% copper derived from a rudimentary economic evaluation of BKM designed to assess the viability of the project, of which determining an economic copper cut-off grade is one of the outcomes. Details of the evaluation are:

- Open cut heap leach SX-EW operation producing 25kt of copper per annum.
- Whittle Optimization Pit Shell generated to maximize volume of resource mined.

• Copper recovery (total)	(%)	80
• Cu Selling Price	(US$/lb)	3.00
• Fixed Mining Costs (ie Mine Services/Overheads/Salaries)	(US$/t ore)	1.30
• Drill and Blast Cost	(US$/t rock)	0.70
• Pit/Dump Clearing	(US$/t waste)	0.10
• Load and Haul Cost (reference cost at Surface) - Waste	(US$/t)	2.20
• Vertical haulage cost differential	(US$/t vert. m)	0.08
• Average Mining Cost	(US$/t)	2.90
• Grade Control	(US$/t ore)	0.22
• Process Plant Operating Cost, both Heap Leach & SX-EW (Maintenance+Power+Labour+Reagents)	(US$/t ore)	9.50
• Product Haulage Cost	(US$/t km)	0.15
• Discount Rate	(%)	10.00
• Copper Royalty	(%)	4.00
• NSR Royalty paid to Freeport	(%)	1.00

The maximum pit generated includes >95% of the Indicated Resource material.

In addition, H&A has reviewed parameters utilized for determining reporting cuts from similar deposits and uncovered that, utilising a similar approach and parameters:

- GeoVector Management Inc. determined a 0.2% copper reporting cut for the Las Posadas Copper Deposit, Chile, as part of PEA prepared for Global Hunter Corp. (October 2012).

Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

- Tetra Tech Inc. determined a 0.25% copper reporting cut for the Zonia Copper-Oxide Deposit, Arizona, USA, as part of a resource report prepared for Cardero Resource Corp. (December 2015).

H&A is of the opinion that 0.2% Cu is an appropriate base case reporting cut in stating the BKM mineral resources and that any upward movement in reporting cut to 0.3%Cu (based on any sensitivity studies) would not alter the reported Indicated Resources and reduce the reported Inferred Resources by 2.8Mt (refer Figure 25).

Table 26: Tabulated Copper Resources - Beruang Kanan [Indicated and Inferred Classified Resources reported separately].

Indicated Mineral Resources				
Reporting cut (Cu %)	**Tonnes ('000)**	**Cu Grade (Cu %)**	**Contained Cu ('000 tonnes)**	**Contained Cu ('000,000 lbs)**
0.2	**15,000**	**0.7**	**105**	**231**
0.5	12,600	0.7	88	194
0.7	5,600	0.9	50	110

Inferred Mineral Resources				
Reporting cut (Cu %)	**Tonnes ('000)**	**Cu Grade (Cu %)**	**Contained Cu ('000 tonnes)**	**Contained Cu ('000,000 lbs)**
0.2	**49,700**	**0.6**	**298**	**657**
0.5	25,300	0.7	177	390
0.7	9,800	0.9	88	194

Notes:

Mineral Resources for the Beruang Kanan mineralization have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. In the opinion of Duncan Hackman, the block model Resource estimate and Resource classification reported herein are a reasonable representation of the copper Mineral Resources found in the defined area of the Beruang Kanan Main mineralization. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into Mineral Reserve. Computational discrepancies in the table and the body of the Release are the result of rounding.

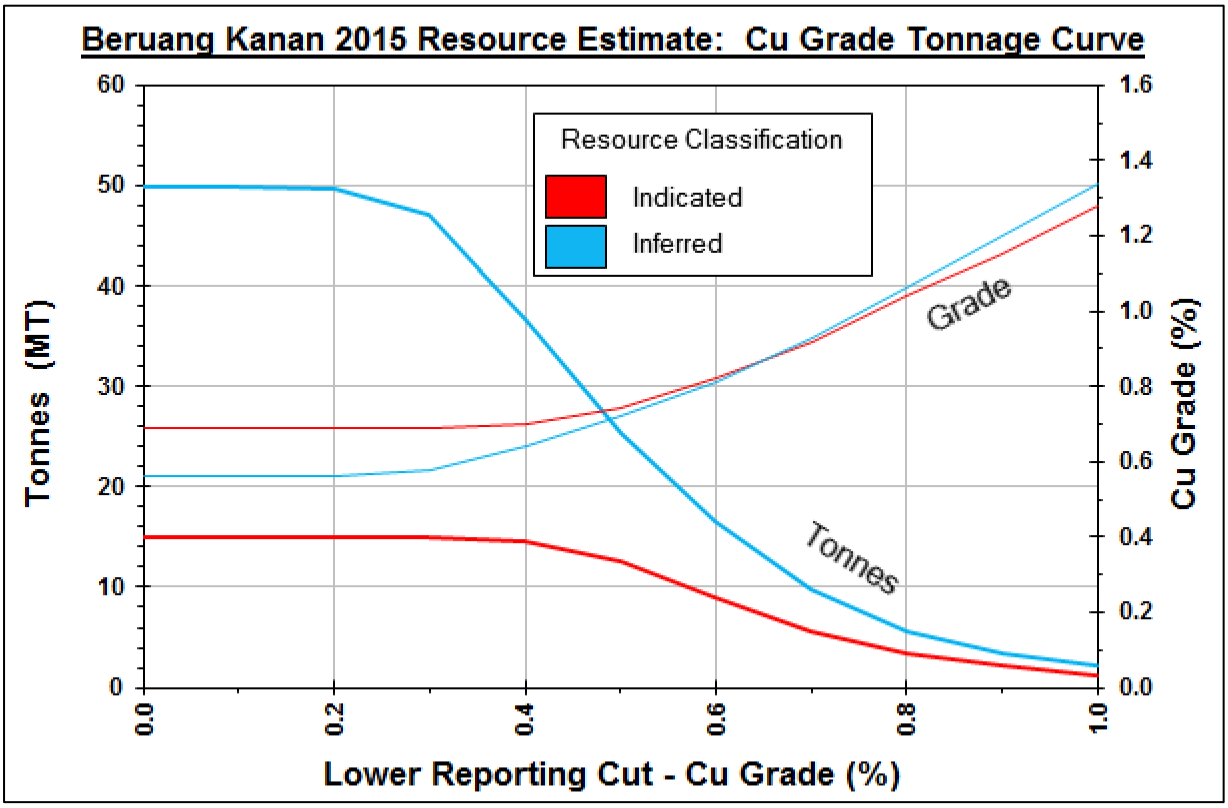


Figure 25: Copper Grade Tonnage Curves. Beruang Kanan Resources.

H&A details the current tenure and permitting status of the KSK CoW (incorporating the Beruang Kanan Main Zone mineralisation) in Section 4.2. KSK has signed a MOU with the Government of Indonesia covering items to amend in the KSK contract of work, a requirement stipulated by the Government to align existing CoWs with the current Indonesian Mining Law. All details of the amendments have not been finalized, however the continuation of the CoW is clearly stated in the MOU.

H&A is not aware of any current legal, political, environmental, permitting, taxation, socio-economic, marketing or other risks that could materially affect the potential development of the mineral resources at BKM.

14.10 **Comparison with 2014 Resource Estimate**

The 2014 resource estimate was reported as 47MT @ 0.6%Cu or 280KT of contained copper at a 0.2% reporting cut.

The 2015 resource estimate shows an improved level of confidence in 15MT of the former resources which are now reported as Indicated Resources (15MT @ 0.7%Cu, or 105KT of contained copper at a 0.2% reporting cut). The expansion drilling has replaced and marginally increased the upgraded Inferred Resources which now stand at 49.7MT @ 0.6%Cu, or 298KT of contained copper at a 0.2% reporting cut.

15 Mineral Reserve Estimates

There are no advanced project investigations to report for the BKM mineralization (Items 15 to 23, NI 43-101).

At the time of report writing KSK has commenced a Preliminary Economic Assessment Study which is planned be finalized during Q1 2016.

16 Mining Methods

Not applicable

17 Recovery Methods

Not applicable

18 Project Infrastructure

Not applicable

19 Market Studies and Contracts

Not applicable

20 Environmental Studies, Permitting and Social or Community Impact

Not applicable

21 Capital and Operating Costs

Not applicable

22 Economic Analysis

Not applicable

23 Adjacent Properties

KSK Projects:

The following main projects have also been the subject of exploration activities within the KSK CoW (refer Figure 26 for location wrt Beruang Kanan):

- Baroi - Central and Far-East Prospects (Au, Cu, Ag, Mo): Vein-hosted mineralization in volcanic and sedimentary rocks. Veined material consistently returns copper grades of 1-5% and elevated Zn, Ag and Pb. The Central zone also contains elevated Au grades (1-3g/t). Baroi is 17km from BKM.
- Beruang Tengah - Eastern (Au, Cu) and Western (Au) Prospects. Beruang Tengah is 4km from BKM.
- Mansur Prospect (Cu Au). Mansur is 25km from BKM.
- Beruang Kanan - North Polymetallic (Pb, Zn, Cu, Ag, Au) and South (Cu, Au) Prospects. These prospects are proximal to BKM.

These prospects have geological, geochemical and alteration characteristics that are consistent with mineralization being associated with porphyry intrusives and intrusive related vein systems (Munroe and Clayton, 2006). Mineralization has been identified at all of these prospects and they are the target ongoing exploration. To this date none of the prospects have been subjected to drilling to the extent of that directed at BKM. Detailed descriptions of the geology and mineralization are reported by Munroe and Clayton (2006).

Companies working within KSK CoW District:

Two IUPs abut the KSK CoW; to the east, the tenure is held by PT. Kahayan Mineral, and to the north by PT. Persada Makmur Sejahtera. There is no information readily available on the activities undertaken by these companies.

There are further IUPs to the south of the KSK CoW. These do not adjoin the CoW.

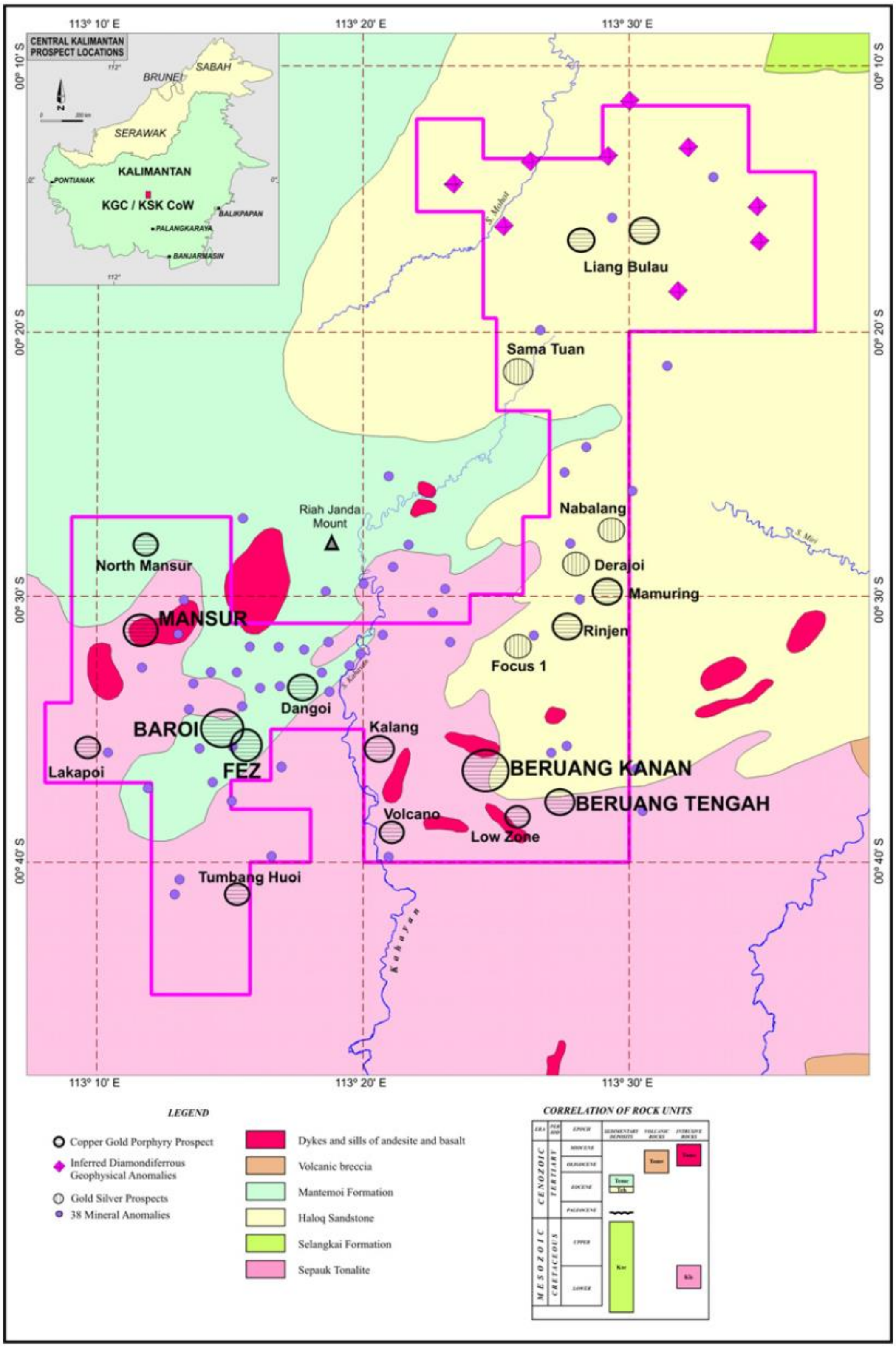


Figure 26: Geological setting and location of prospects and main geochemical anomalies in the KSK CoW (after Munroe and Clayton 2006).

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24 Other Relevant Data and Information

Other than that included in this report, there was no relevant data or information offered to or uncovered by H&A during the course of generating the BKM 2015 Resource Estimate.

25 Interpretation and Conclusion

The Beruang Kanan Main Zone 2015 Copper Resource Estimate is tabulated at

Table 26. It is estimated that there are 105KT of contained copper classified as Indicated Resources and 298KT of contained copper classified as Inferred Resources at the natural or geological grade cut of 0.2% Cu. The resource estimate was conducted under the auspices of the Canadian National Instrument 43-101 and classified under the guidelines set out in the Instrument.

The covellite, chalcocite and chalocpyrite vein style copper mineralization is hosted in sheared and blocky sediments and volcanics within an interpreted thrust fault-coupling or ramping zone. The mineralized area has been tested by 145 diamond drillholes which defines a prospective area of 1300mN, 900mE and a depth of 450m containing 25 interpreted zones of mineralisation. These zones have been intercepted by 93 of the 145 holes. There is potential for satellite bodies of mineralisation to be discovered towards the east and south of BKM and at depth in repeat structural setting.

The risk associated with the current resource estimate is reflected in the assigned Indicated and Inferred classifications. The drilling density and orientation suitability, primary sampling reliability, certainty in geological and grade continuity, tonnage factor representivity, sample reduction strategy suitability and the unknown reliability of historic assay data are the key factors in determining the resource classification. These risks can be better understood or alleviated with further work on the project which will involve infill drilling and appropriate studies on core and sampling protocols aimed at improving the confidence in the data and greater understanding of grade continuity and geological controls on mineralisation (at all scales). An indicative drilling programme is offered in Section 26 which will increase the drilling density to roughly 50m by 50m throughout, and closer in areas now classified as Indicated Resources. The anticipated outcome for a programme of this extent is, for an expenditure of US$3.32mil and the appropriate focus, an estimate that will be suitable for consideration at higher category classifications (Indicated and Measured as described in the NI 43-101).

Initial metallurgical testwork on the BKM copper mineralisation will also be required to advance the understanding of the mineralisation and economic viability of the project. This work is incorporated into the Preliminary Economic Assessment Study currently underway and scheduled for completion Q1, 2016.

Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

In addition to the satellite mineralisation potential to extend copper mineralisation identified in the immediate Beruang Kanan Main Zone area there are additional targets within the local area to BKM. KSK and JV partners have historically drilled a limited number of holes at the nearby South Beruang (5), West Beruang (1), Low Zone (2), North Polymetallic Zone (6) and South Polymetallic Zone (6) prospects during drilling campaigns. Significant intercepts from this drilling are listed in Table 27.

Table 27: Significant Intercepts from 24 historic holes drilled into Prospects Adjacent to BKM

Significant Drill Intercepts from Prospects Adjacent to BKM Cu Mineralisation										
Prospect	Hole	Intercept	From	To	Interval	Cu(%)	Au (ppm)	Zn (%)	Pb (%)	Ag (ppm)
South Zone	BKD02-01	>0.2%Cu	205.00	211.50	6.50	0.68	0.01	0.08	0.01	4.9
		>0.2%Zn	330.50	338.50	8.00	0.01	0.02	0.26	0.08	0.8
	BKD02-02	>0.2%Cu	204.30	212.50	8.20	0.71	0.01	0.09	0.01	4.8
	BKD04-01	>0.2%Zn	250.00	265.50	15.50	0.10	0.03	0.48	0.25	4.0
	KBK-0028	>0.2%Cu	11.50	29.00	17.50	0.60	2.03	0.02	0.01	3.7
		>0.5ppmAu	11.50	14.50	3.00	0.22	11.57	0.01	0.01	6.0
		>0.2%Cu	14.50	17.00	2.50	1.86	0.06	0.04	0.01	4.4
Low Zone	LZ01-01	>0.2%Zn	309.00	325.60	16.60	0.01	0.15	1.07	0.38	36.6
	LZ02-01	>0.2%Zn	298.50	304.50	6.00	0.17	0.03	0.33	0.12	7.7
North Polymetallic	BKZ-1	>0.2%Zn	6.00	44.00	38.00	0.12	0.63	3.48	1.31	31.4
		>0.2%Zn	46.00	70.00	24.00	0.07	0.10	1.23	0.08	3.1
		>0.2%Zn	78.00	86.00	8.00	0.02	0.02	0.51	0.16	1.1
	BKZ-2	>0.2%Zn	8.20	60.40	52.20	0.08	0.25	2.09	0.81	14.1
	BKZ-3	>0.2%Zn	14.60	64.95	50.35	0.05	0.27	3.28	1.20	17.6
	BKZ-6	>0.2%Zn	87.00	96.00	9.00	0.08	0.01	0.51	0.02	0.5
South Polymetallic	BK051	>0.2%Cu	*188.00*	194.00	6.00	0.31	0.02	0.04	0.00	1.8
	BK052	>0.2%Zn	*9.60*	24.50	14.90	0.03	0.09	0.42	0.14	4.2
		>0.2%Cu	90.20	105.20	15.00	0.28	0.01	0.04	0.00	0.5
	BK-11	>0.2%Cu	0.00	6.00	6.00	1.97	0.01	0.00	0.01	5.0
		>0.2%Cu	99.00	114.00	15.00	0.32	0.07	0.07	0.01	0.7
	KBK-0024	>0.2%Cu	102.00	136.00	34.00	0.53	0.02	0.09	0.00	1.2

At the time of report writing KSK is drilling holes at Beruang Kanan South (refer Figure 4). Significant results to date are listed at Table 28.

Table 28: Significant Intercepts from KSK 2015 drilling programme at Beruang Kanan South

Hole ID	From (m)	To (m)	Length (m)	Cu (%)
BKM30500-01	19.5	29.5	10	2.52
BKM30500-01	43.5	46.5	3	1.45
BKM30500-01	58.5	62	3.5	1.04
BKM30625-01	7.5	8.5	1	3.83
BKM30625-01	12.5	14.5	2	0.67

An indicative exploration and scout drilling programme for 2016 is offered in Section 26. The anticipated outcome for a programme of this extent is, for an expenditure of US$0.77mil and the appropriate focus, the identification of where additional base and precious metal resources can be added within the immediate vicinity of the BKM Zone Copper Resource.

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Obvious drill targets also exist at the proximal Beruang Tengah project and other recognized projects within the KSK CoW (Figure 26) leading H&A to believe that there is a reasonable probability of KSK expanding the copper resources within the Beruang Kanan district and to add precious and base metal resources to their inventory.

H&A has no reason to question that the current negotiations KSK is conducting with the Government of Republic of Indonesia, on a memorandum of understanding regarding details of the KSK CoW (Section 4.2.2), will reach a satisfactory conclusion and that KSK will be able to continue to explore and, at the appropriate time, develop mineral resources within the KSK CoW area.

26 Recommendations

The following activities directed at improving the confidence in the input data utilized in generating future estimates of the copper resources at Beruang Kanan are recommended by H&A:

- Investigate the impact that the primary sample size has on copper grade representivity and reliability for improving robustness and confidence in future assay datasets. In particular:
    - understand the reasons why the NQ and BQ core samples report lower copper grades than the PQ and HQ core samples,
    - determine if precision and accuracy issues relating to the sample reduction protocols impact on the reliability of copper assays in the current dataset and
    - incorporate duplicate hole drilling into future programmes to better understand the heterogeneity of the in situ mineralization
- Improve knowledge and understanding of mineralizing processes and their expected attitudes, geometries and extents for designing infill drilling programmes.
- Investigate the relationship between copper grade and mineralization events (veining styles/density/orientation) to assist in the design of future drilling (hole orientation and density).
- Continue to build a comprehensive specific gravity dataset to generate reliable dry bulk density and bulk density datasets for use in future resource estimates and engineering studies.
- Increase confidence in the historic KSK dataset through programmes such as twinning of key holes.
- Rebuild the ENJ-KSK assay dataset and remove quality control umpire assays from the primary data.
- Review all protocols for future evaluation work to ensure their suitability regarding mineralisation styles, local conditions, sample and data integrity and use, sample and data security and storage etc.

These recommendations will require new drill core and would be included in a programme designed to increase the confidence of future resources at the Beruang Kanan Main Zone.

The following programmes are recommended for improving confidence in the BKM resource and in expanding the resource base in the BKM zone area:

Stage 1 – Infill and resource drilling at BKM:

This programme comprises diamond drilling totaling 14,000 m (approximately 150 holes averaging 90m each) on a 50 metre by 50 metre grid to infill drilling at the BKM mineralization. This program could be carried out in 5-6 months using 5 man-portable drill rigs, assuming an average daily drilling rate of 20m per rig. The outcome is to upgrade the classification of the Mineral Resources at BKM to Measured and Indicated Resources achieving confidence levels for resources that can support a preliminary and definitive feasibility studies.

Stage 2 – scout drilling at prospects adjoining Beruang Kanan Main Zone:

This program comprises additional mapping and systematic sampling on surface at Beruang Kanan West, Beruang Kanan South and Beruang Kanan Polymetallic Prospects to test current targets and identify mineralisation (and results dependent, additional targets for testing). Scout diamond drilling totaling 2,500 m (approximately 20 holes averaging 125m each) is proposed, to test the mineralization at Beruang Kanan West, Beruang Kanan South, Beruang Kanan Polymetallic North, Beruang Kanan Polymetallic South, and the Low Zone Prospects. This program could be carried out in 2 months using 2 man-portable drill rigs, assuming an average daily drilling rate of 20m per rig. The outcome is to identify areas for drilling to delineate additional resources within the immediate vicinity of the Beruang Kanan Main Zone.

In addition to the extension and upgrading of the BKM resource H&A acknowledges that KSK has commissioned a Preliminary Economic Assessment Study (as defined by the NI 43-101) that is scheduled for completion Q1 2016. This study has been budgeted at US$150,000.

The total of Stage I, Stage II and PEA budgets is estimated at US$4,053,000. A breakdown of costings are listed at Table 29.

Table 29: Indicative budget for recommended work programme – all costings in USD.

Activity	Programme	
	Infill and Resource Drilling at BKM	Scout Drilling
Assaying	280,000	50,000
Geological Staff	350,000	140,000
Drilling	2,100,000	375,000
Camp Food / Accomodation	75,000	30,000
Field Work / Contract Labour	125,000	50,000
Transport / Aircraft	30,000	12,000
PEA Study	150,000	
Community Relations	30,000	12,000
Permitting / Legal	40,000	16,000
Field Supplies	45,000	18,000
Travel	25,000	10,000
Report Compilation	70,000	20,000
Total	**3,320,000**	**733,000**

Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

27 References

Carlile JC, and Mitchell AHG (1994): Magmatic arcs and associated gold and copper mineralisation in Indonesia. *Jour. Geochem. Expl, v 50, pp 91-142.*

Corbett GJ, and Leach TM (1998): Southwest Pacific Rim Gold-copper Systems: Structure, Alteration, and Mineralization. *Society of Economic Geologists.*

Geiger M, and Prasetyo D (2004): Appraisal and Exploration Summary, Baroi and other significant prospects, KSK Contract of Work Central Kalimantan, Kalimantan, Indonesia. *Unpubl. NI-43101 Report.*

Hackman D (2014): Beruang Kanan Main Zone, Kalimantan, Indonesia; 2014 Resource Estimate Report. *Unpubl. NI-43101 Report.*

Johansen G (2007): Report on the Geology and Copper Potential of the KSK JV Tenements in Central Kalimantan. *Unpubl. Internal Company Report, Oxiana Ltd.*

Munroe S, and Clayton M (2006): Competent Person's Report on the Mineral Exploration Assets of Kalimantan Gold Corporation Limited. *Unpubl. Report Prepared for Kalimantan Gold Corporation Limited.*

Pollard P (2006): Copper(-gold) prospects within the Kalimantan Surya Kencana Contract of Work, Kalimantan, Indonesia: Review and recommendations for future exploration. *Unpubl. Report Prepared for Kalimantan Gold Corporation Limited.*

Van Leeuwen TM, Leach TM, Hawke AA, Hawke MM, (1990): The Kelian disseminated gold deposit, East Kalimantan, Indonesia. *Jour. Geochem. Expl, v* 35, pp 1-61.

28 Appendices: Numbers 1 to 17

Appendix 1 Qualified Persons Certificate and Statement of Independence

AUSTRALIAN INSTITUTE OF GEOSCIENTISTS

Supporting Geoscientists

Annual Membership Certificate 2015/2016

The Council of the Australian Institute of Geoscientists hereby certifies that

Mr Duncan Howard Hackman

(# 1742)

is a current, financial member of the Institute, as stipulated in the Articles of Association, has agreed to be bound by the Institute's Code of Ethics, and holds the membership level of Member.

T.W. Spilsbury

Wayne Spilsbury
President

Anne Tomlinson
Councillor for Membership

Current to 30th June 2016

Joining date: 11st November 1999

Australian Institute of Geoscientists
www.aig.org.au

APPENDICES: Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

Qualified Persons Statement

RE: Beruang Kanan Main Zone, Kalimantan, Indonesia; 2015 Resource Estimate Report dated 30th November 2015.

(a) I, Duncan Hackman B.App.Sc. MSc. MAIG am employed as a Principal Consultant for Hackman and Associates Pty. Ltd., 260A Crawford Rd, Inglewood, Western Australia.
(b) I am a Member of the Australian Institute of Geoscientists.
(c) As a result of my experience (11 years in copper resource evaluation and mining, including deposits such as Khanong (Laos), Prominent Hill (Australia) and Golden Grove (Australia)) and academic qualifications (B.App.Sc. and MSc.), am a Qualified Person as defined in National Instrument 43-101.
(d) My most recent visit to the Beruang Kanan Project was between the 21st and 28th June, 2015.
(e) I am responsible for all sections of the above mentioned report.
(f) I am independent of PT Kalimantan Surya Kencana, Asiamet Resources Limited and all affiliates of these companies, in accordance with the application of Section 1.5 of National Instrument 43-101.
(g) My previous involvement with the Beruang Kanan Project was in generating the 2014 resource estimate for the Beruang Kanan Main mineralisation.
(h) I have read National Instrument 43-101 and Form 43-101F1 and this report has been prepared in compliance with same.
(i) As of the effective date of the report, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated, this 28th day of January 2016.

Duncan Hackman B.App.Sc. MSc. MIAG
Principal Consultant

Appendix 2 H&A consent to file report and release resource statement

Duncan Hackman
Hackman & Associates Pty Ltd.
260A Crawford Rd. Inglewood
Western Australia, 6052

CONSENT OF QUALIFIED PERSON

I, Duncan Hackman, consent to the public filing of the technical report titled "Beruang Kanan Main Zone, Kalimantan, Indonesia; 2015 Resource Estimate Report." dated November 30, 2015 (the "Technical Report") by Asiamet Resources Limited ("ARS").

I also consent to any extracts from or a summary of the Technical Report in the ARS news release dated October 21, 2015.

I certify that I have read the news release dated October 21, 2015, filed by ARS, and that it fairly and accurately represents the information in the Technical Report for which I am responsible.

Dated this 28th day of January 2016.

Duncan Hackman

B. App.Sc. MSc. MAIG

Appendix 3 PT Eksplorasi Nusa Jaya: Assay Quality Control Data Assessment Report

FROM: Meilinawati J. **DATE:** 30 January 2014

RE: Sample Preparation and Assay Quality Control report

This report address the assay quality collected from the diamond drill core and geochemical samples during the Exploration program starting May 2012 to December 2013 at PT KSK CoW area at Kalimantan Tengah, Indonesia.

Geoassay Laboratory was chose to give its services for sample preparation and assaying. The sample preparation established at Tengkiling at about 35 km from PT ENJ and PT KSK main office at Palangkaraya.

The total amount of 18,522 samples consisted of 10,852 drill core and 7,670 geochem samples were sent to laboratory for prep and analysis. The samples production by monthly shows on this histogram:

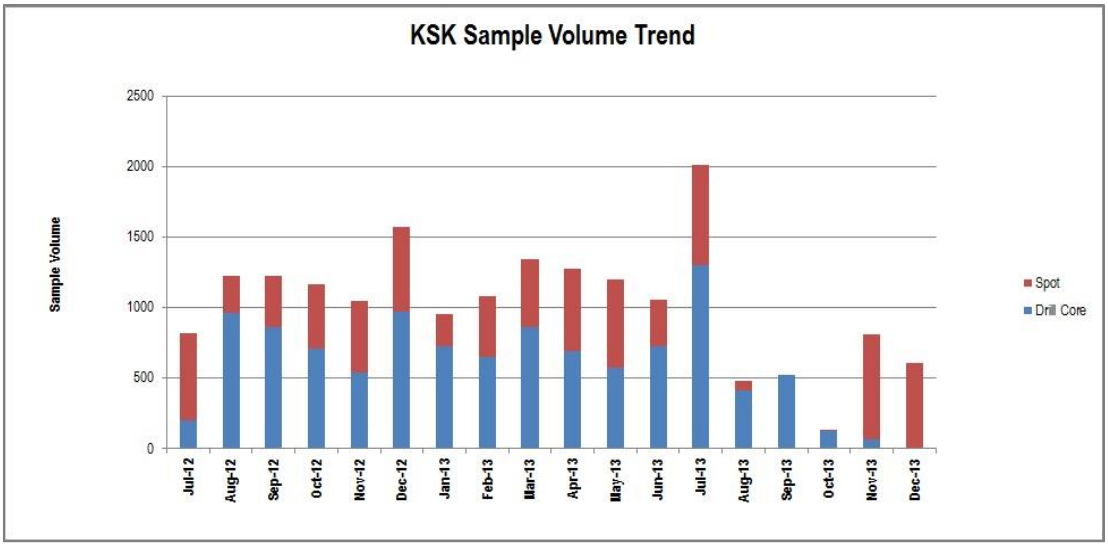


Figure 1: Samples Volume from July 2012 to December 2013

The quality control involves for KSK samples:

- Examination on preparation work by
  - Pulp screen test after pulverize passing -200mesh
  - Duplicate reject
  - Blank
- Examination on analytical work by
  - Production standard results
  - Duplicate assay results
- Inter Laboratory Check results

Preparation and Assay Procedures

The preparation and assay procedures utilized by Geoassay follow the Standard Operating Procedures (SOP) developed by PT ENJ and Geoassay to suite the conditions and criteria required for KSK samples.

All the drill core and geochem samples from work site are transported from the Marinyuoi to Tengkiling. The arrival of samples at Tengkiling is confirmed with the paperwork transfer. Trips between the Marinyuoi core handling facility and sample preparation area generally occur about 2 times per week. Upon arrival at Tengkiling, the containers are unpacked and checked against the shipping orders from Marinyuoi. ENJ personnel are advised if there are any discrepancies in sample received and the transmittal form. If there are no discrepancies then sample preparation proceeds. However, if the transmittal form and receiving form do not match all work stops. A sequential KSK job number is assigned and written on a laboratory worksheet and the ENJ transmittal form.

The core is then marked for sawing to split for assay and storage. The core is split longitudinally with a core saw. Conventional splitters are also available for small diameter core. Half of the core is returned to the core box after splitting and the other half is bagged and numbered for processing by GeoAssay personnel in the building adjacent to PT KSK's core shed. The samples are then processed and finally placed into kraft paper bag and shipped to the GeoAssay Analytical Laboratory in Cikarang, Jakarta (GA) for assaying. Transmittal and assay instruction forms accompany the sample shipment to GA.

The sample preparation work effective started on July 3, 2012. Figure 1 shows the Sample Preparation Protocol for Diamond Drill Core at the GeoAssay sample preparation area at Tengkiling.

1. The samples are weighed before drying in an oven for a maximum of 8 hours at 105°C. Samples weights are also taken after drying and recorded on the transmittal sheet.

2. The entire sample (half core) is placed into a jaw crusher; the output is crushed to -8mm to -10mm. All the crushed material is then fed to the Boyd RSD Combination crusher and splitter with output–4mm.

3. The rotary splitter opening is set to get about a 1 kilogram sample. This 1 kilogram sample is directly output from the Boyd Crusher to the LM2 ring to pulverize. The rest of the material reports to coarse reject.

4. Additional reject splits are retained for future metallurgical work and for duplicate coarse reject analysis. Roughly 1 in 25 of the duplicate coarse reject (DR) samples is prepared and assayed as a check on the pulp preparation process. As well, 1 in 25 coarse reject samples are also screen analyzed to confirm the size is 95% passing 4mm. Results of the screen analysis are reported monthly.

5. Approximately 1000g of the primary split is pulverized in a ring to produce a 95% passing 200 mesh pulp. One out of every 25 pulps is wet screened to confirm the proper -200 mesh pulp size. This sample forms the Duplicate Assay sample (DA) which is separately assayed for QC purposes.

6. After pulverizing, the 1000g sample is mat rolled then split into 4 components using a spoon. The entire pulped sample is divided and placed into 4 kraft paper pulp bags.

One of the pulp bag send out for analysis to Geoassay right away. The remaining three pulp bag are individually sealed then placed into zip lock plastic bags and submitted to ENJ. This will be used for recheck program with the frequency 1 to 20. Those two pulps send out for analysis to Intertek and Sucofinfo.

Prior to send the samples to prepare, a Blank is inserted within the dispatch batch that available at Tengkiling. A numbers of CRM were also inserted when the pulp samples received from the preparation work prior to shipment to Geoassay lab at Cikarang, Jakarta for analysis. Following the Standard Operating Procedures (SOP) document, Standards are inserted on a 1 in 20 basis and one blank is inserted per batch.

Figure 2-5 shows the Sample Preparation Protocol for Drill Core, Rock Sample, Soil and Stream Sediment samples.

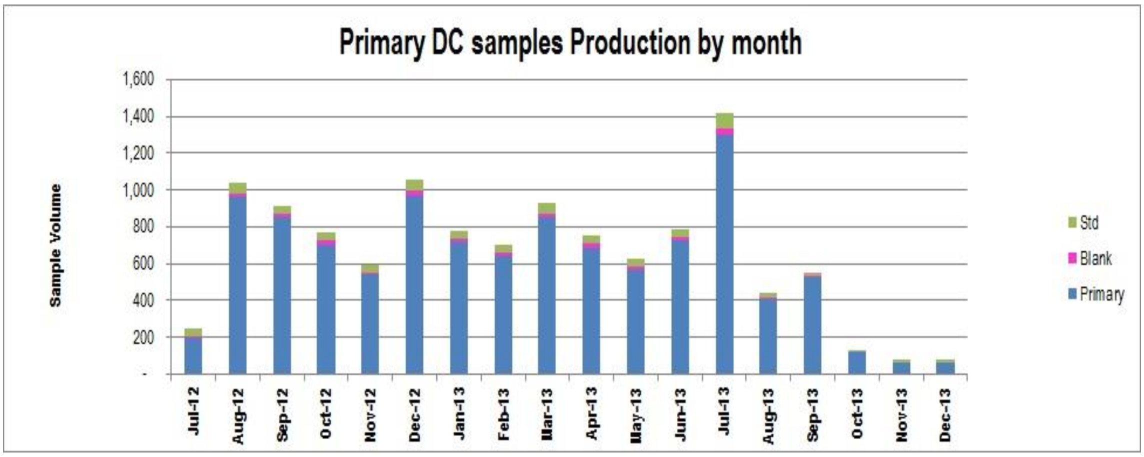


Figure 6: Drill core samples Production with insertion Std and Blank from July 2012 to December 2013

Assay instructions are supplied to GeoAssay electronically by PT ENJ personnel. GeoAssay labs use Inductively Coupled Plasma (ICP) Optical Emission Spectrometer (OES) methodology for determining the base metal content. Assay requests are complete ICP-OES packages (36 elements) with three acid digest from a 0.5g pulp sample (aliquot). If the result of that method reports greater than 10.0% copper, the assay is rerun as an "ore grade" sample where a 1.0g sample is digested with three acids and followed with flame AA. Over range of base metal such as Cu, Pb, Zn is repeated by Oregrade AAS finish method (GOA03) with 3 acid digest.

Gold is assayed by fire assay methods utilizing a 40g aliquot with an AAS finish. If gold values are greater than 50ppm they are re-analyzed by fire assay gravimetric methods.

Table below is the list elements by ICP-OES done by Geoassay:

ANALYTICAL METHOD

GOLD Analysis : Fire Assay (FA)

Geoassay FA-40gr

Base Metal Analysis

Geoassay	ICPOES						
GAI03_DG	Three Acid Digest for ICP Trace Elements - Per Digest						
GAI03_ICP	ICPOES Single Trace Elements Determinations - per elements						
GAI03_ICP36	ICPOES Package Trace Wlements (all elements listed below) - per package						
Ag	0.5 - 100ppm	Al	0.01 - 25.0%	As	5 - 10,000ppm	Ba	10 - 10,000ppm
Be	5 - 1,000ppm	Bi	5 - 10,000ppm	Ca	0.01-10.0%	Cd	0.5 - 2,000ppm
Co	1 - 10,000ppm	Cr	2-10,000ppm	Cu	1 - 10,000ppm	Fe	0.01% - 25.0%
Ga	2-2,000ppm	K	0.01-25.0%	La	5-10,000ppm	Li	1 - 10,000ppm
Mg	0.01 - 10.0%	Mn	5-100,000ppm	Mo	2 - 10,000ppm	Na	0.01 - 10.0%
Nb	5 - 10,000ppm	Ni	5 - 10,000ppm	P	5 - 10,000ppm	Pb	5 - 10,000ppm
S	0.01 - 10.0%	Sb	5 - 1,000ppm	Sc	5 - 1,000ppm	Sn	10 - 1,000ppm
Sr	5 - 1,000ppm	Ta	5 - 10,000ppm	Ti	0.01-10%	V	2 - 10,000ppm
W	10 - 10,000ppm	Y	5- 10,000ppm	Zn	5 - 10,000ppm	Zr	5 - 10,000ppm

Over Range Cu, Pb, Zn Mo (>10,000ppm)
Reanalysis by Oregrade GOA3 AAS finish

The Results

The assay results from the laboratories were stored in the acquired database system. These analytical results are direct import into acQuire database and publish after passing the quality validation tools. The analytical results are stored as a quarantine file and will be flagged when QC is done.

Any Flag result that pass the QA/QC validation tools will note as 'accepted' and publish means available to look, to retrieve and used by user as also auto generate text file for other software dataset. On the other hand if it's failed it will be 'rejected' the results will stored as quarantine file. The QC personnel will contact the laboratory to do the necessary action and will upload the revise results by following the Validation tools. The revise results will not replace the previous rejected one.

Other than quality control for all analytical results from Geoassay, ENJ also conduct Inter laboratory check to ensure that the quality of analysis with a relatively new method (ICP-OES) can provide a high level of confidence.

Intertek participate as secondary check using ICP-OES method and Sucofindo with AAS determination.

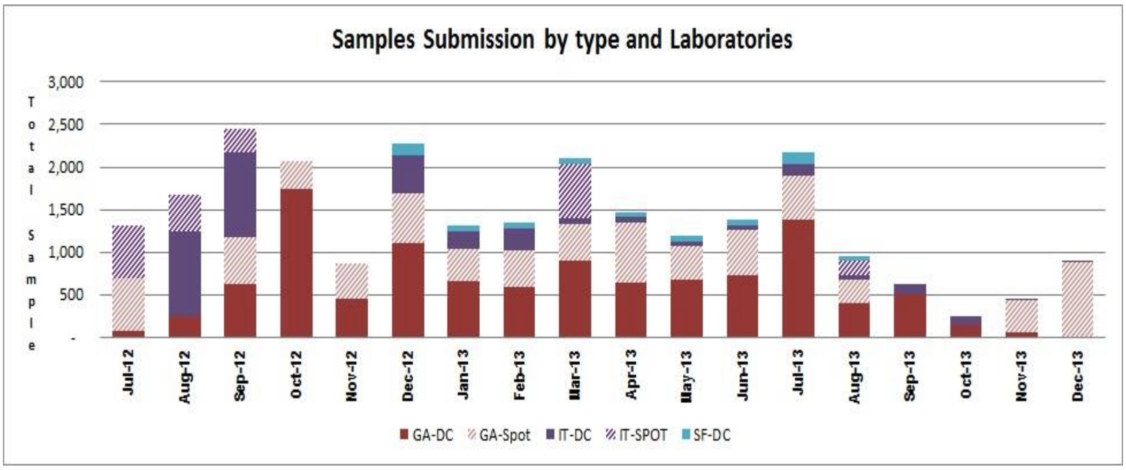


Figure 7: Samples submission distribution by type and Laboratories

Coarse reject and Pulp screen test

The sizing test from coarse reject and pulp is a routine QC procedure implemented by ENJ to check the homogenous crushing and grinding results during preparation work. Size tests were undertaken by Geoassay on coarse samples and -200mesh pulps on every 25th sample while internally this size test conducted by ENJ on pulp size only. The criteria of sizing test for both coarse reject and pulp are ± 5%, at 95% passing.

Blank

One blank is inserted in every samples batch on drill core and geochem (spot) samples. Originally the Blank is barren quartz but the blank material now is unconsolidated sand material.

One blank is inserted in every samples batch. The blank material is currently made up from barren Quartz from Tengkiling area. The analysis of blanks indicates the background value on Blank samples. Blanks results did not show any contamination; almost all elements are in the low level.

The results from the Blank samples from drill core and spot reflected on the bar plot download directly from acQuire as shows on Appendix 3 and 4.

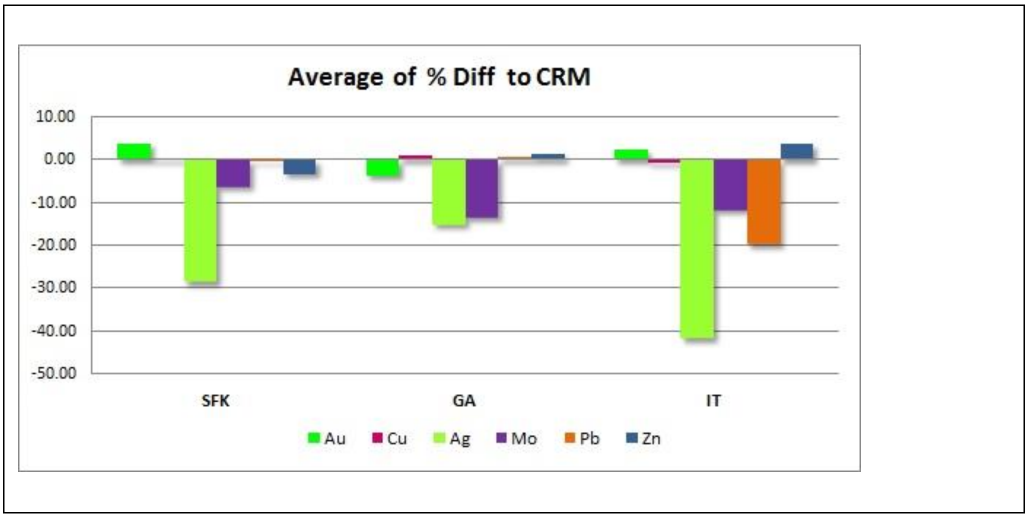
Production Standard

A total of 727 CRM samples were analyzed by Geoassay during this time. There were five types of standard samples were used to control the assay quality during this period. Four standards or "CRM" (Certified Reference Materials) samples are sourced from PT Freeport Indonesia material, named GRGEO-03, GRVL-02, MLZLG-04 and MLZMG-01. Those selected type of standard has attempted to have closer matrix match with rock background found at KSK project. BKSH-01 was taken and produced from the Beruang Kanan location, KSK project area.

The results are summarized in histogram plot showed the average of CRM production results of each laboratory compared to the certified value.

The production standard output indicates:

- The histogram plotting the average of Au, Cu, Ag, Mo, Pb and Zn for each CRM.
  - Geoassay, Intertek and Sucofindo shows good performance on Copper results for all type of CRM (Figure 8). This shows by the %RSD and the %Difference Cu from all laboratories are less than 1,5% Diff from the certified value. Fig 9-11 show its fall within the 2 StdDev line boundary.
  - The accuracy of Cu, Mo, Pb, Zn results from Geoassay were described on the result of % Different to certified value that fall within the acceptance limit (2 StdDev).
  - Au, Ag, As and Mo showed erratic results due to low grade results.



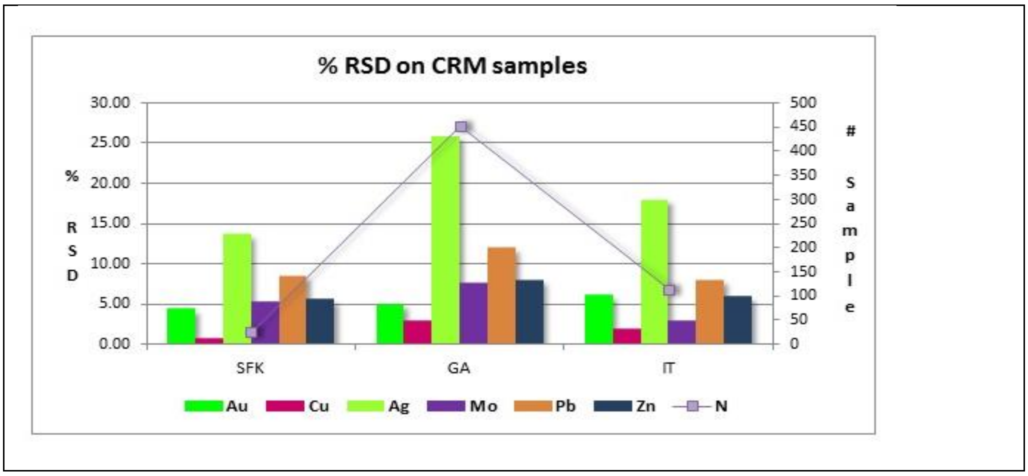


Figure 8: Histogram plot the average of Different Standard production results from certified value and %RSD

by Geoassay, Intertek and Sucofindo KK

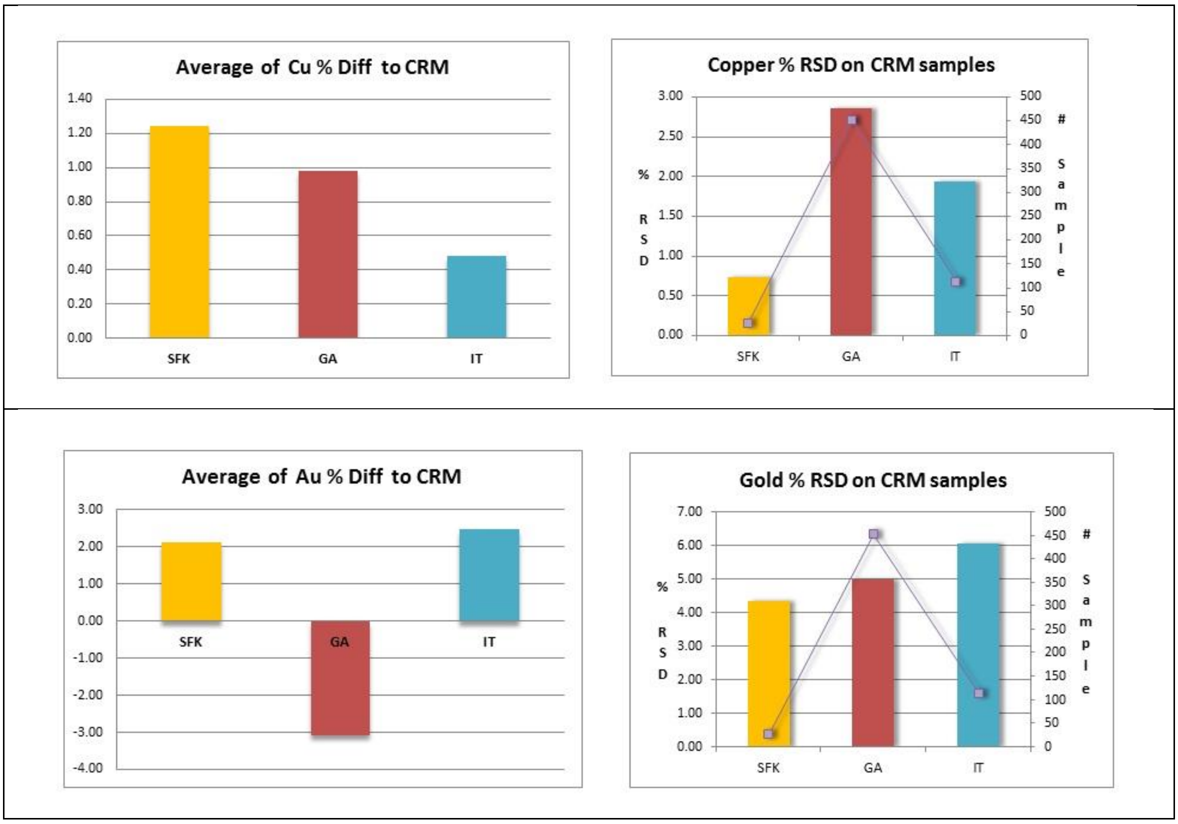


Figure 9: Histogram plot the average of Different Standard production results from certified value and %RSD

by each elements interest

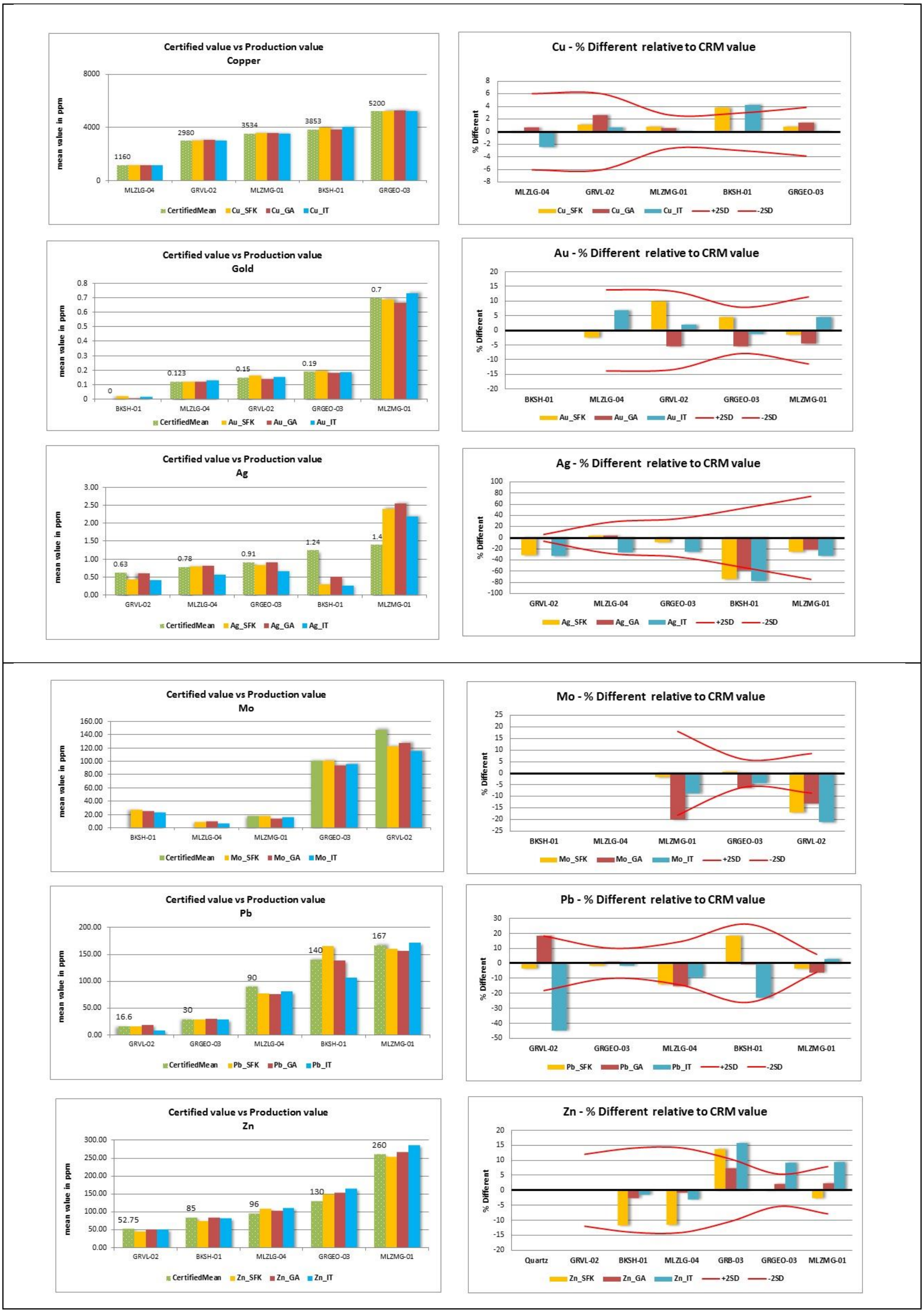
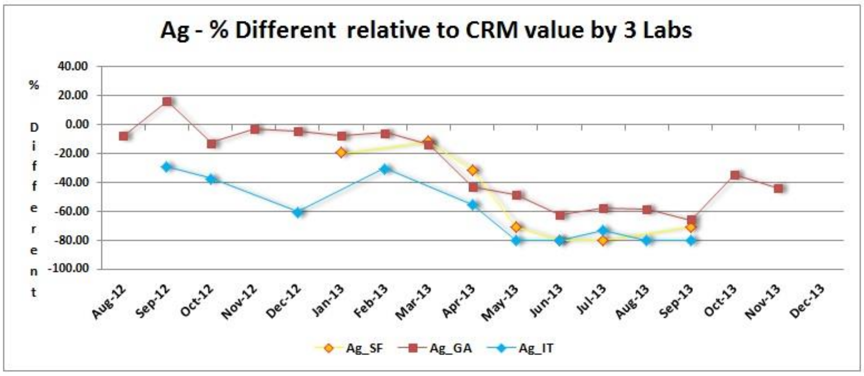
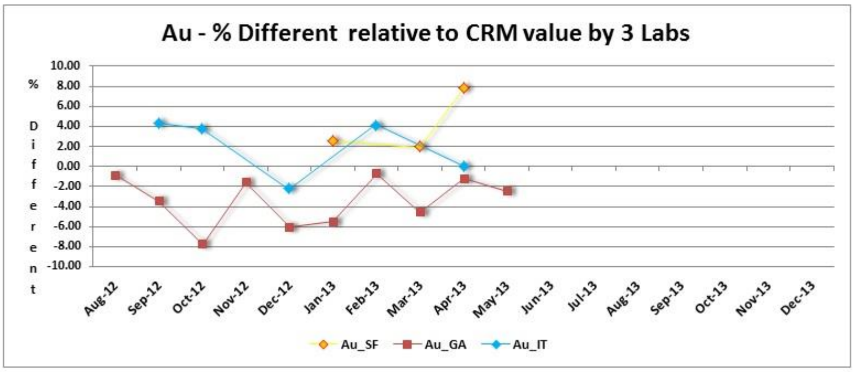
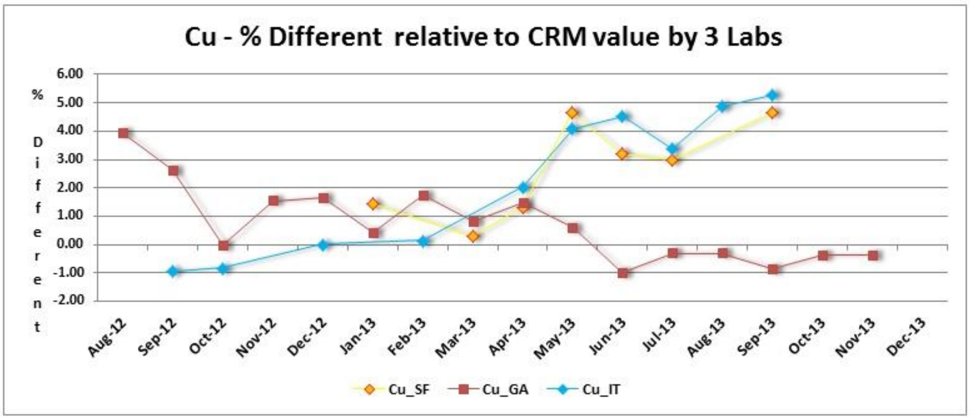
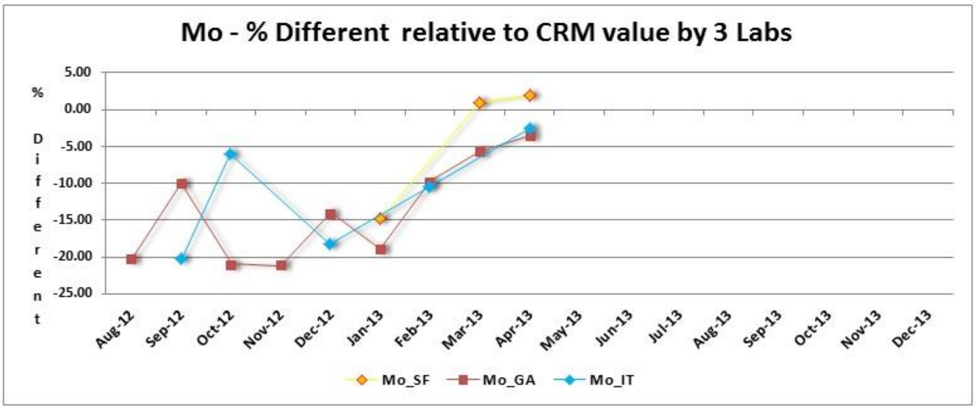


Figure 10: Histogram plot the average of CRM production results by Standard type


Ag - % Different relative to CRM value by 3 Labs
% Different
40.00
20.00
0.00
-20.00
-40.00
-60.00
-80.00
-100.00
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Ag_SF
Ag_GA
Ag_IT


Au - % Different relative to CRM value by 3 Labs
% Different
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
-10.00
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Au_SF
Au_GA
Au_IT


Cu - % Different relative to CRM value by 3 Labs
% Different
6.00
5.00
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Cu_SF
Cu_GA
Cu_IT


Mo - % Different relative to CRM value by 3 Labs
% Different
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Mo_SF
Mo_GA
Mo_IT

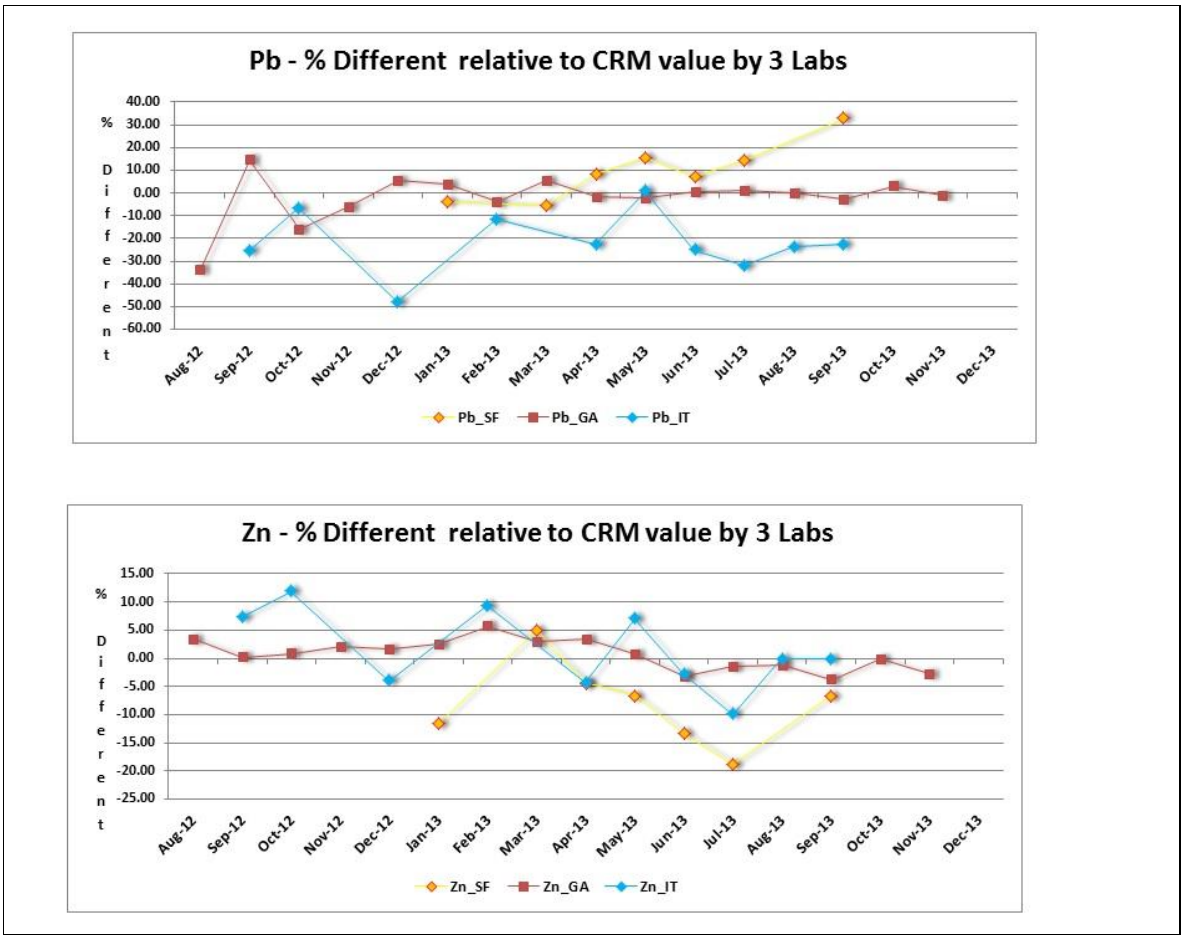
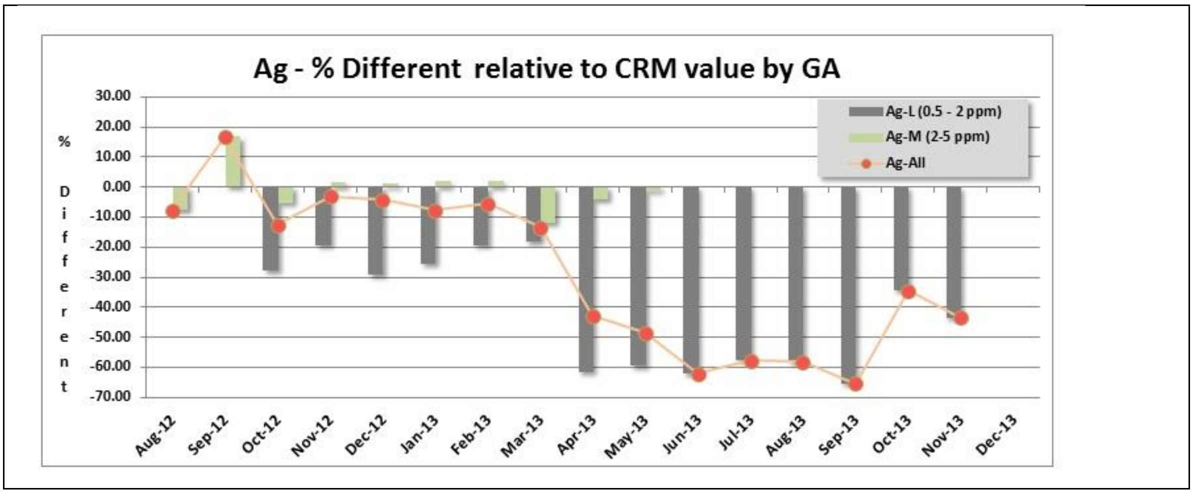
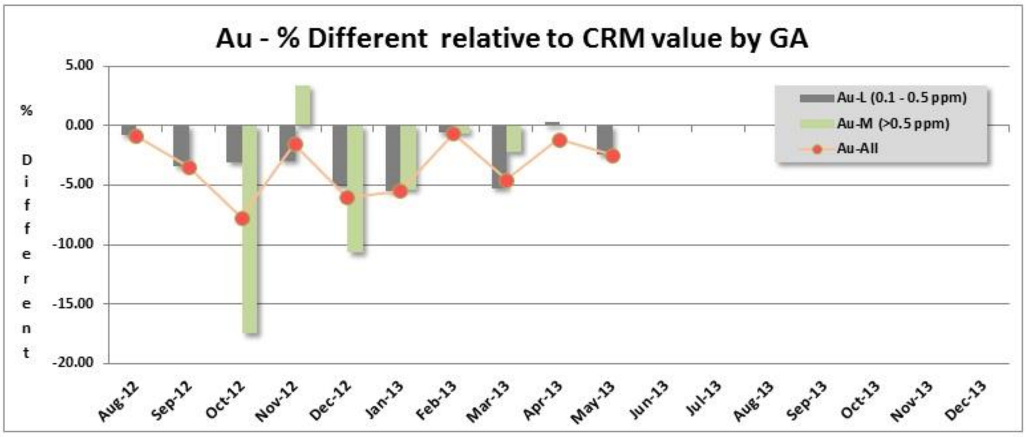
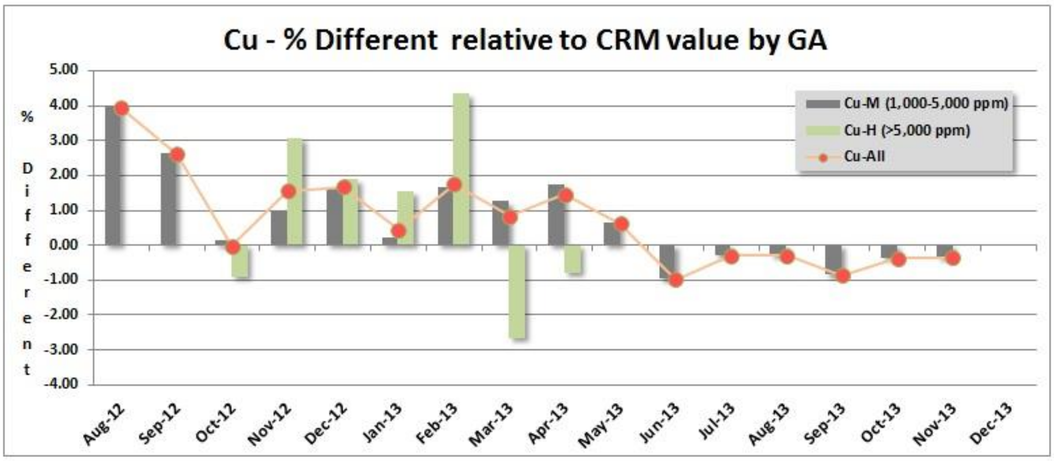
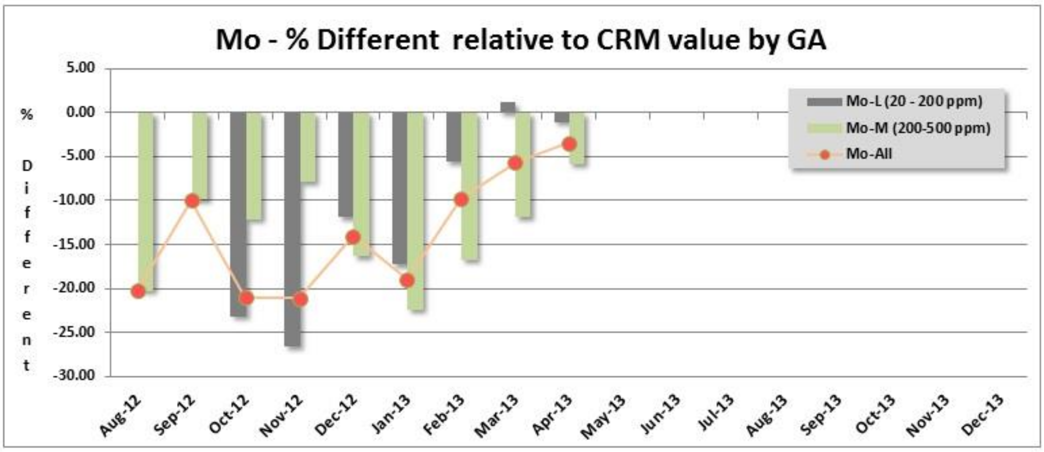


Figure 11: Performance of %Different each Laboratory through the month




Au - % Different relative to CRM value by GA
% Different
5.00
0.00
-5.00
-10.00
-15.00
-20.00
Au-L (0.1 - 0.5 ppm)
Au-M (>0.5 ppm)
Au-All
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13


Cu - % Different relative to CRM value by GA
% Different
5.00
4.00
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
-4.00
Cu-M (1,000-5,000 ppm)
Cu-H (>5,000 ppm)
Cu-All
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13


Mo - % Different relative to CRM value by GA
% Different
5.00
0.00
-5.00
-10.00
-15.00
-20.00
-25.00
-30.00
Mo-L (20 - 200 ppm)
Mo-M (200-500 ppm)
Mo-All
Aug-12
Sep-12
Oct-12
Nov-12
Dec-12
Jan-13
Feb-13
Mar-13
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13

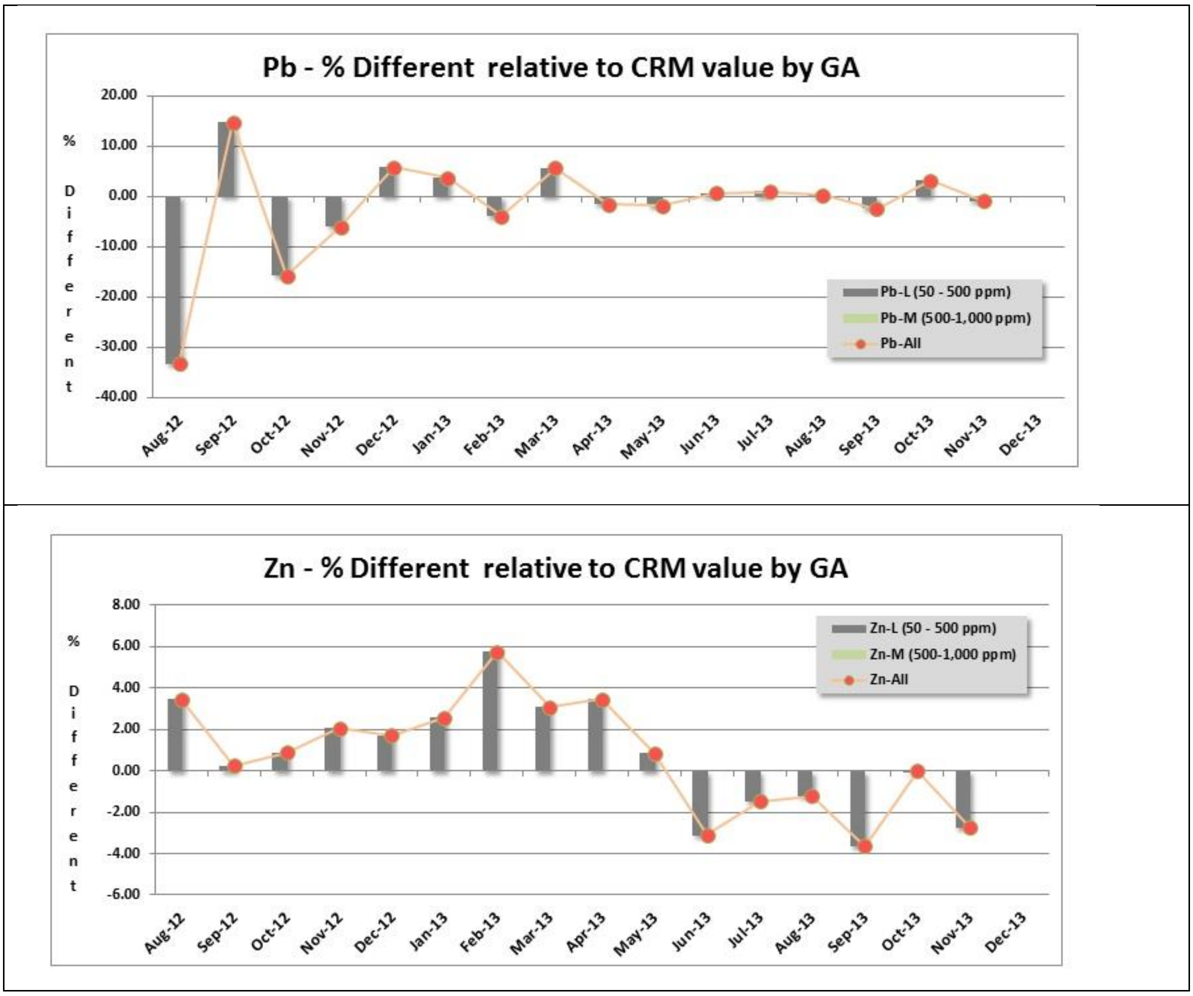


Figure 12: Performance of %Different each Laboratory through the month by grade

Inter Laboratory check

In accordance with the initial intention to check the quality of the assay results from Geoassay (GA) as a main lab, the amount of 20% of total of Drill core samples was taken for this recheck program and send to the two laboratories (Intertek/IT and Sucofindo Kuala Kencana/SFK). Some Drill core and Spot samples reanalyzed by ICP-MS to get a low detection for path finder element to detect the porphyry foot print. ICP-MS were done by Intertek on selected sample only. Detail list of elements and method used by each laboratories depicted on Appendix 10.

A total of 650 drill core samples were sent started November 2012 and stopped on September 2013. Intertek analyze by ICP-OES method for 36 elements while SFK analyze by AAS for limited to Cu, Au, Ag, Mo, Pb and Zn. The study of recheck results during this period limited to several elements Cu, Au, Ag, Mo, Pb and Zn. Because most results for Au, Ag and Mo are near low or near detection, therefore only Cu, Mo, Pb and Zn are more representative. The statistic calculation is starting 10 times detection limit of each element.

The results of observation:

- Geoassay and SFK showed a comparable results rather than Intertek especially for Cu, Ag, Mo and Pb. Copper %Different GA vs SFK is 2.6% and GA vs IT is 5.7% (Figure 13).
- Mean Percent Relative Different (MPRD) plots on Figures 14 and 15 show the comparison results of each laboratory for Cu, Au, Mo, Pb and Zn by month. The Cu assays with ore grade methods shows compatible of ±5%MPRD band.
- Relative high %Different for Au were because most Au results at near Detection limit.
- MPRD plot for Zn shows within a ±12% MPRD band.
- MPRD plot for Mo and Pb shows up to 30% due to low results.

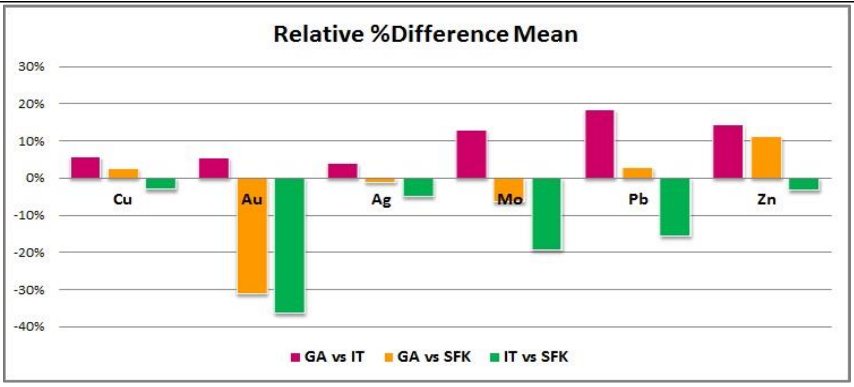
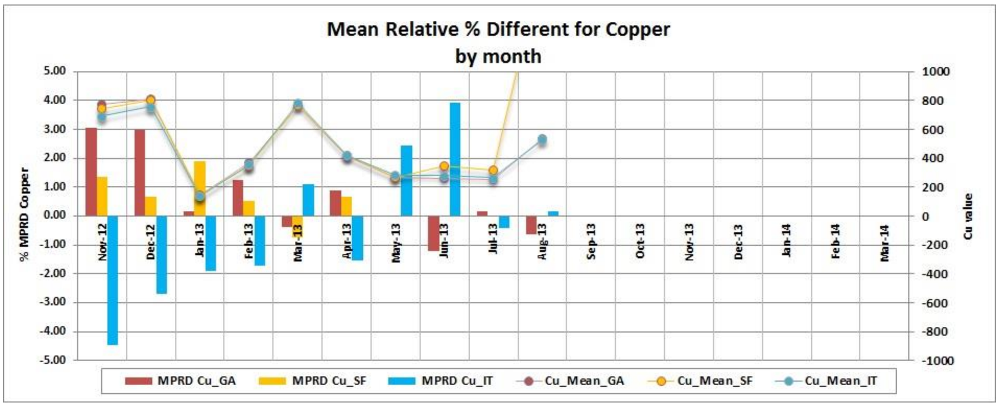


Figure 13: The summary of Relative % Diff. between the three labs for Cu, Au, Ag, Mo, Pb and Zn



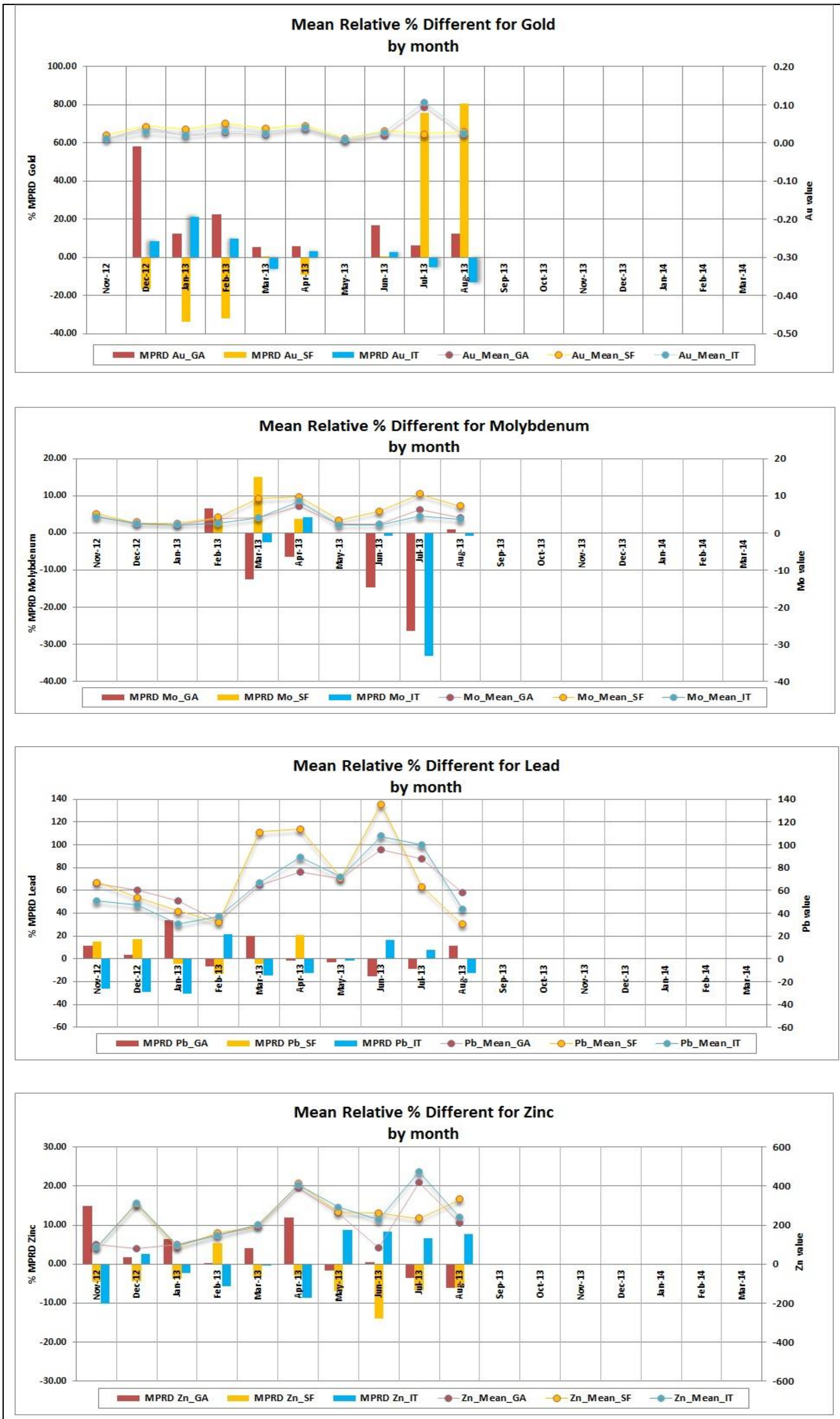
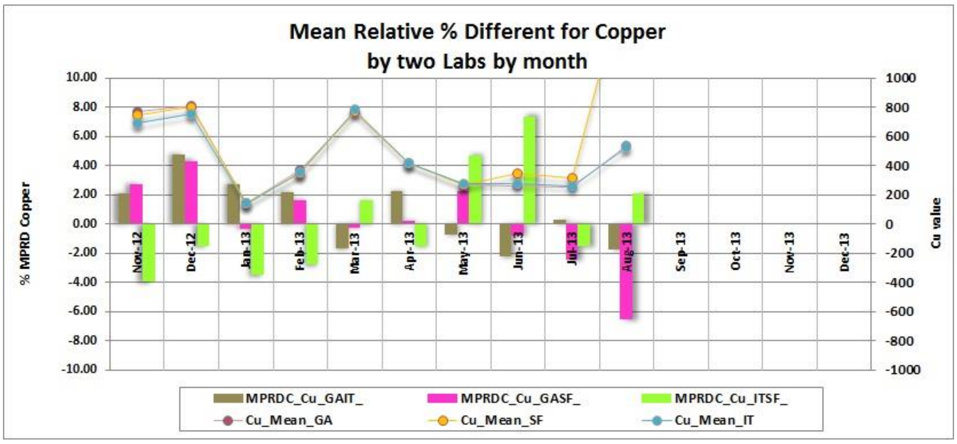
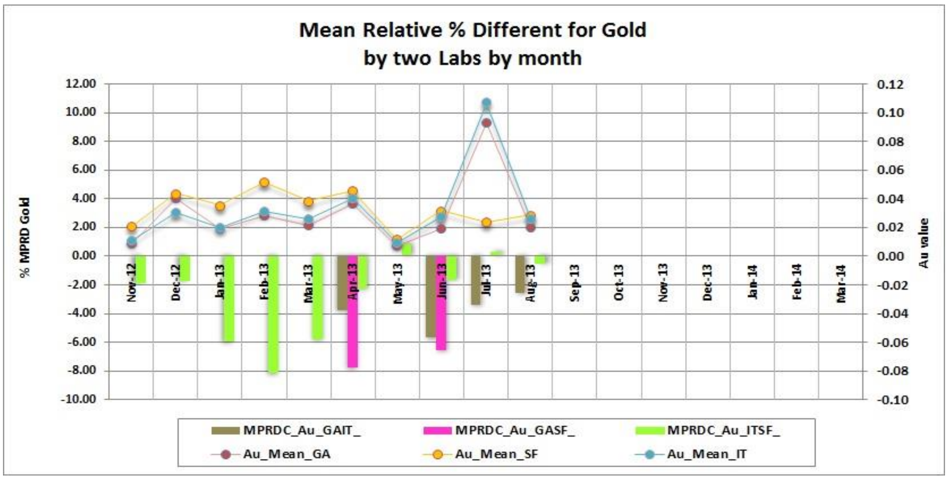
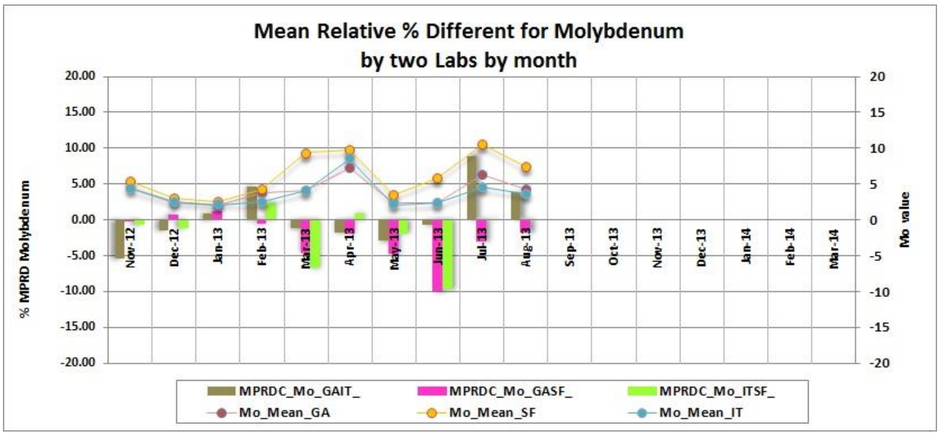


Figure 14: Mean Relative % Different each element from the Clean Mean of three labs

for Cu, Au, Ag, Mo, Pb and Zn







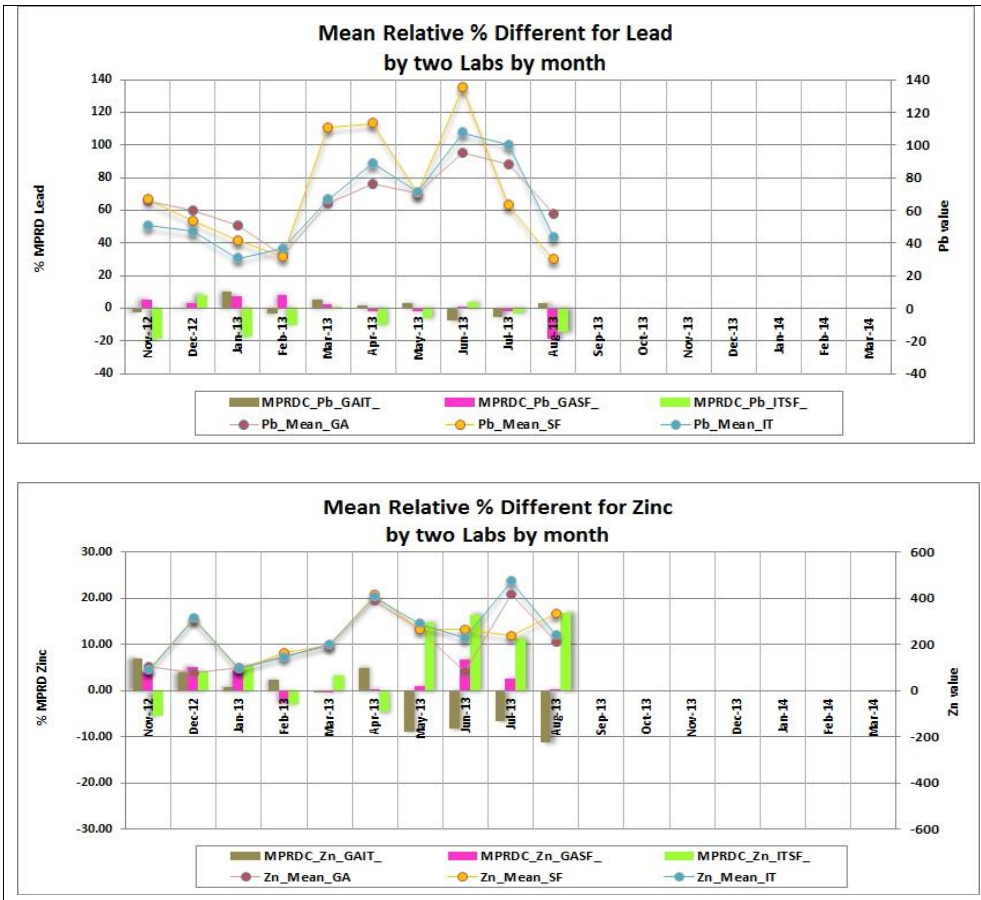
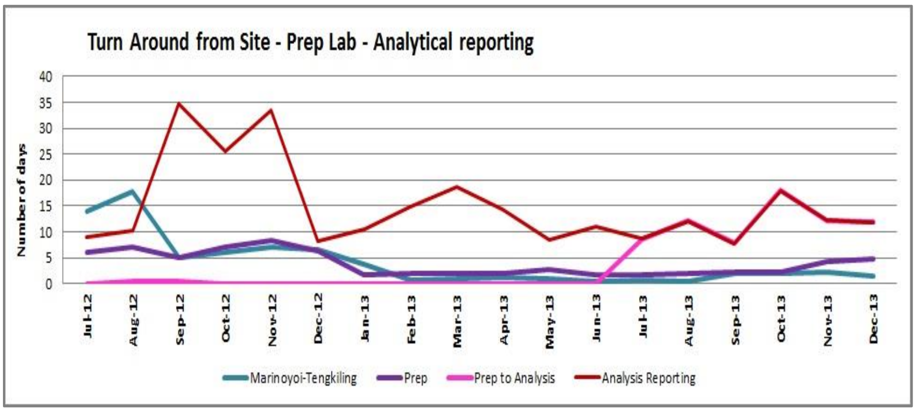


Figure 15: Mean Relative Different each element comparing with 2 labs for Cu, Au, Ag, Mo, Pb and Zn

Turnaround time

The turnaround time of is calculated from the date of pulp sample received by laboratory for analytical work up to the final results reported date.

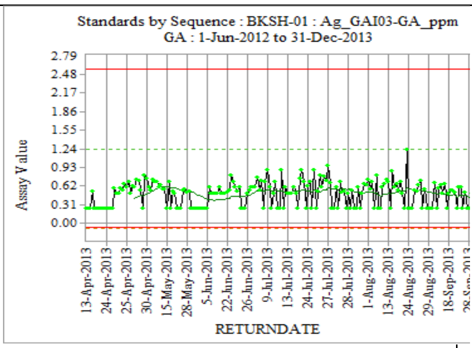


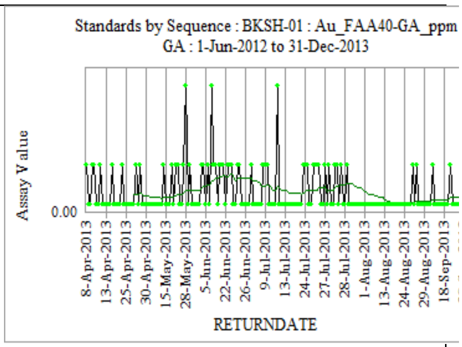
CONCLUSIONS:

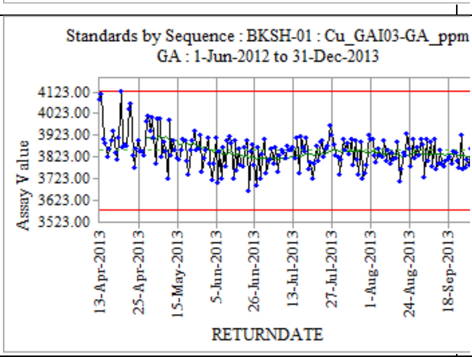
- Results from blanks prove that no contamination occurs during preparation.
- Geoassay produced the confidence analytical results especially for Copper which proved by:
    - Comparable results with Intertek and Sucofindo as shown on the re-check program results.
    - Good performance on production standard as most interest elements (Cu, Ag, Mo, Pb and Zn) that all of elements fall within the tolerance bands of the Certified Reference Material (±2StdDev bands).

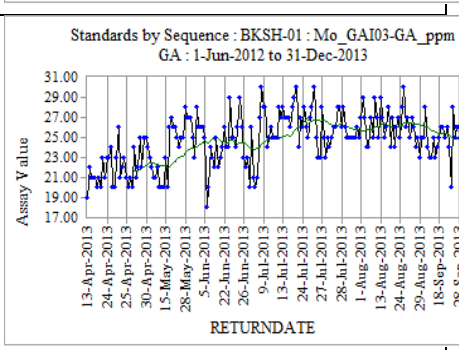
Appendix1: Standard samples performance by date sequence inserted on Diamond Drill Hole samples direct download from AcQuire Geoassay and Intertek Lab.

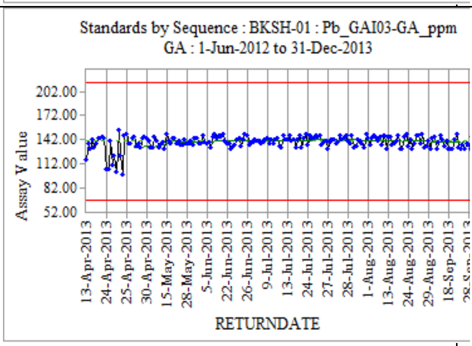
- Standard type: BKSH-01

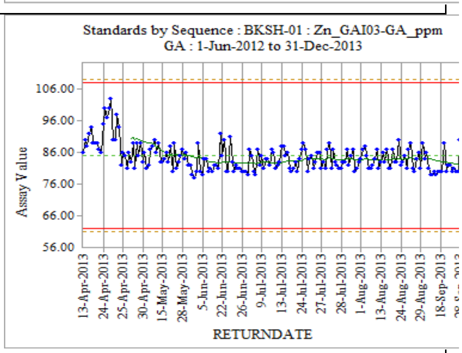


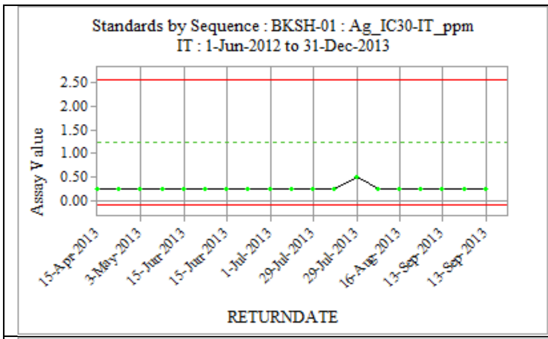


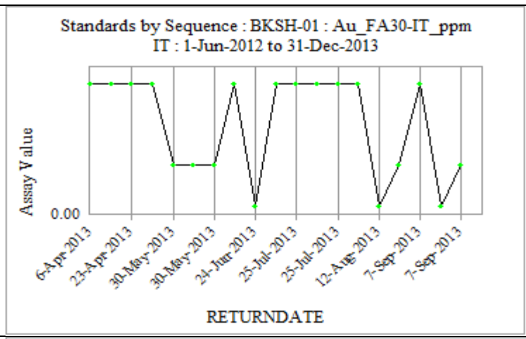


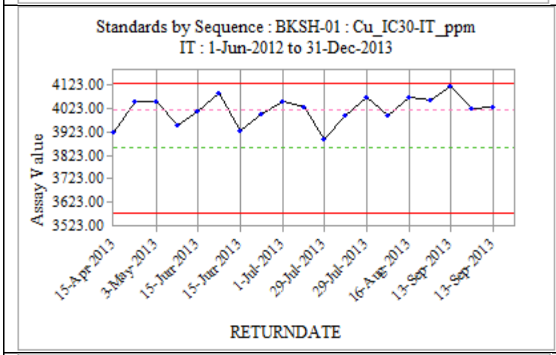


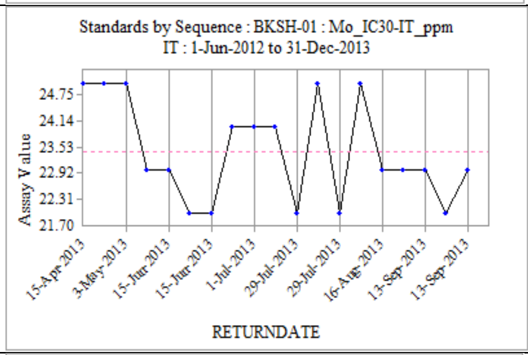


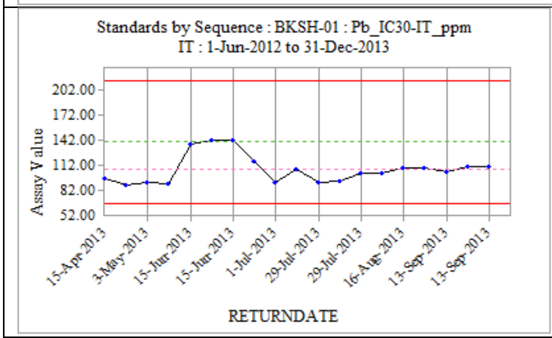


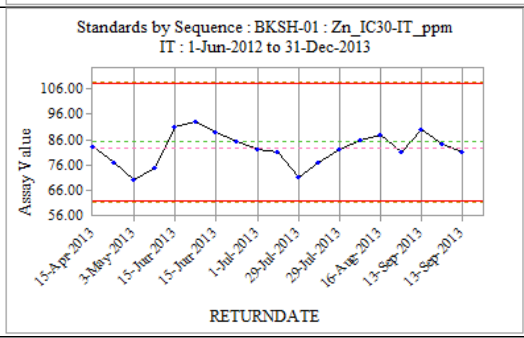

Standards by Sequence : BKSH-01 : Ag_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
2.50
2.00
1.50
1.00
0.50
0.00
RETURNDATE

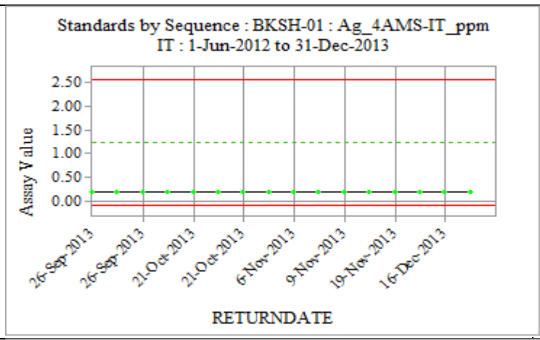

Standards by Sequence : BKSH-01 : Au_FA30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
0.00
RETURNDATE

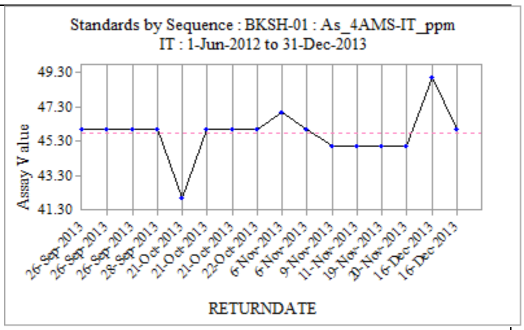

Standards by Sequence : BKSH-01 : Cu_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
4123.00
4023.00
3923.00
3823.00
3723.00
3623.00
3523.00
RETURNDATE

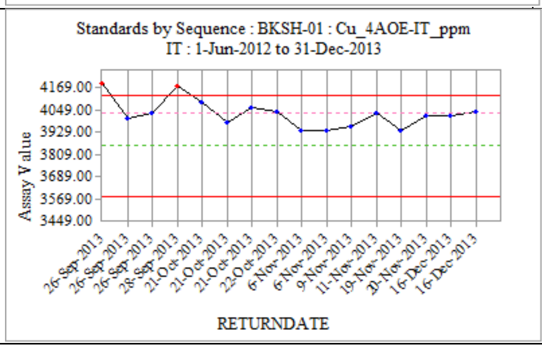

Standards by Sequence : BKSH-01 : Mo_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
24.75
24.14
23.53
22.92
22.31
21.70
RETURNDATE

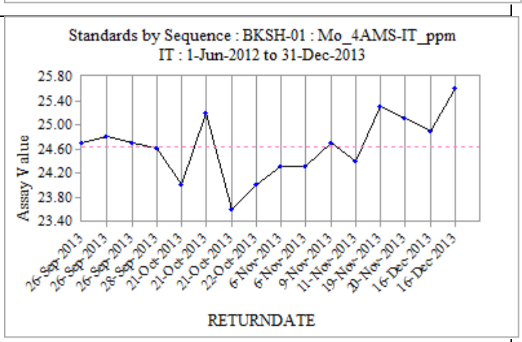

Standards by Sequence : BKSH-01 : Pb_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
202.00
172.00
142.00
112.00
82.00
52.00
RETURNDATE

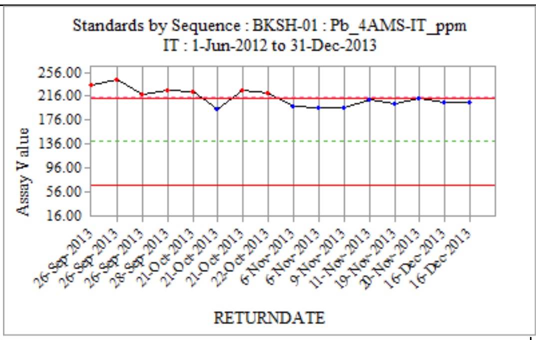

Standards by Sequence : BKSH-01 : Zn_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
106.00
96.00
86.00
76.00
66.00
56.00
RETURNDATE

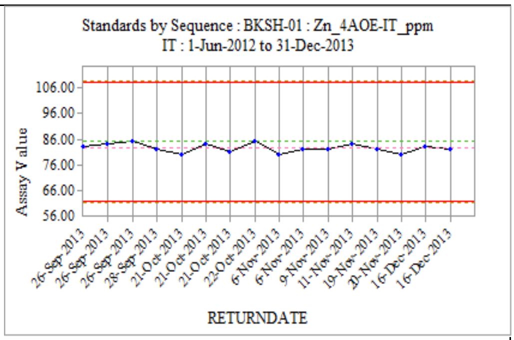

Standards by Sequence : BKSH-01 : Ag_4AMS-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
2.50
2.00
1.50
1.00
0.50
0.00
RETURNDATE

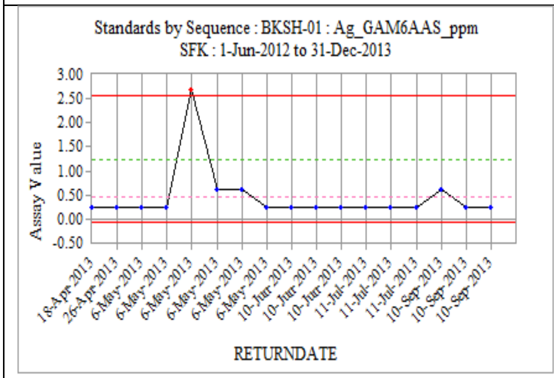

Standards by Sequence : BKSH-01 : As_4AMS-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
49.30
47.30
45.30
43.30
41.30
RETURNDATE

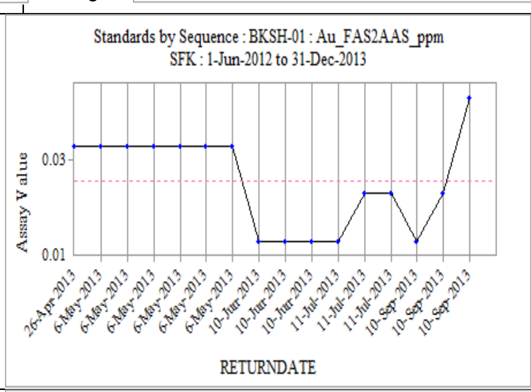

Standards by Sequence : BKSH-01 : Cu_4AOE-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
4169.00
4049.00
3929.00
3809.00
3689.00
3569.00
3449.00
RETURNDATE

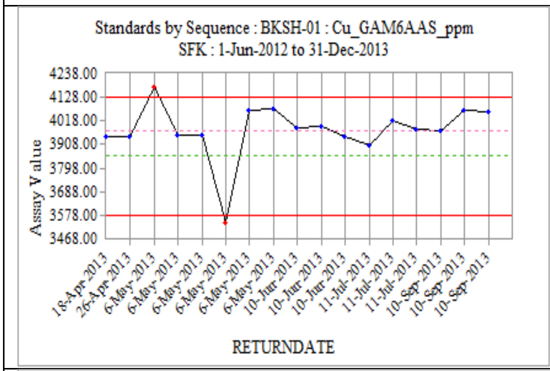

Standards by Sequence : BKSH-01 : Mo_4AMS-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
25.80
25.40
25.00
24.60
24.20
23.80
23.40
RETURNDATE

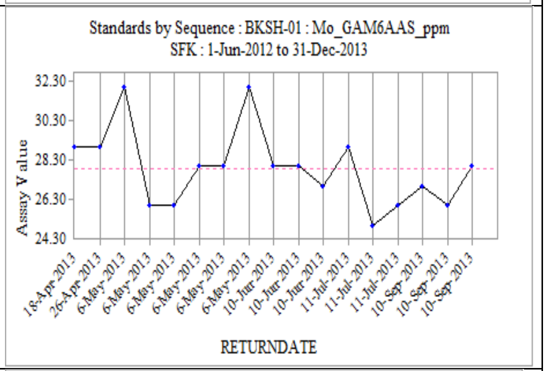


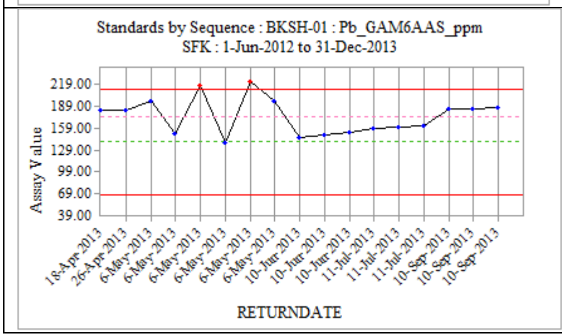


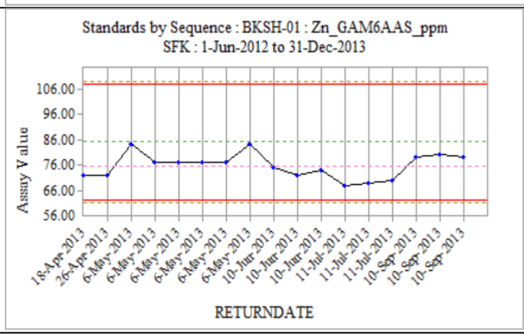




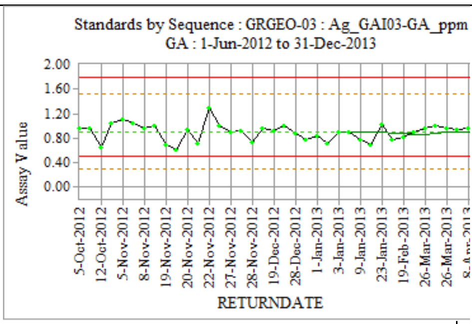


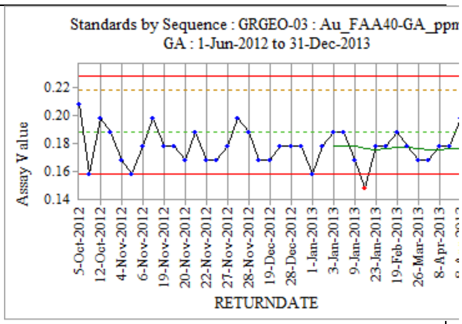






- Standard type: GRGEO-03
-


Standards by Sequence : GRGEO-03 : Ag_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE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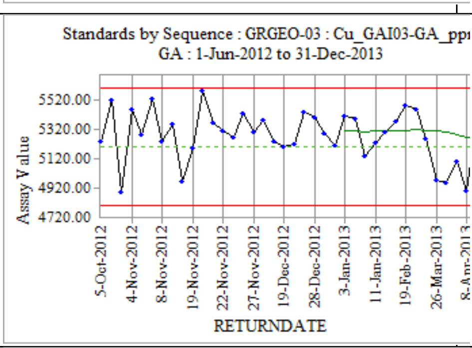
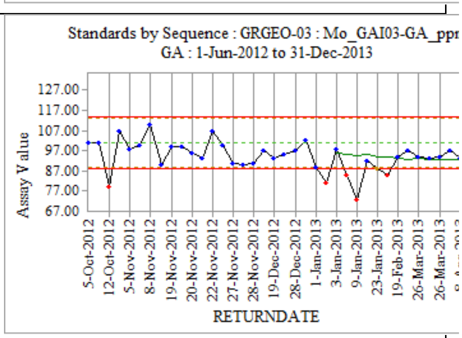
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : GRGEO-03 : Cu_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE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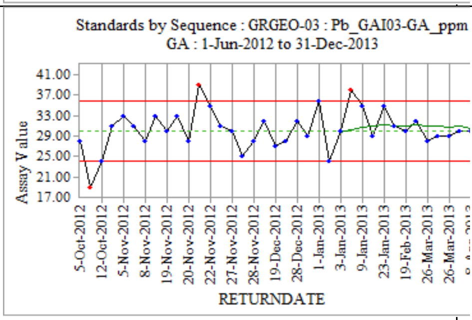
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE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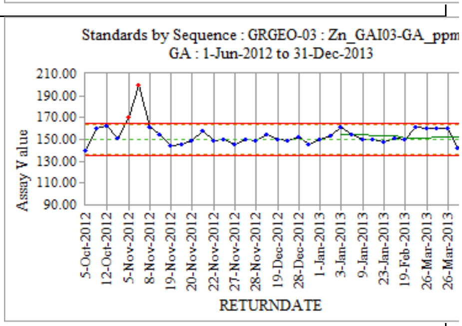
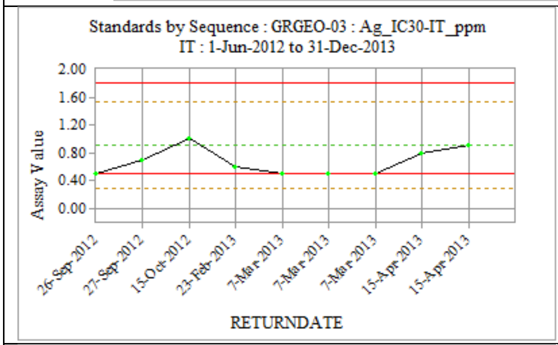
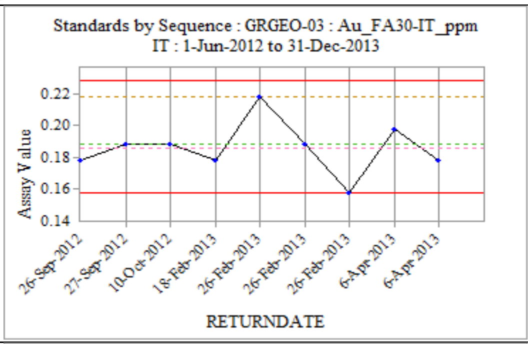
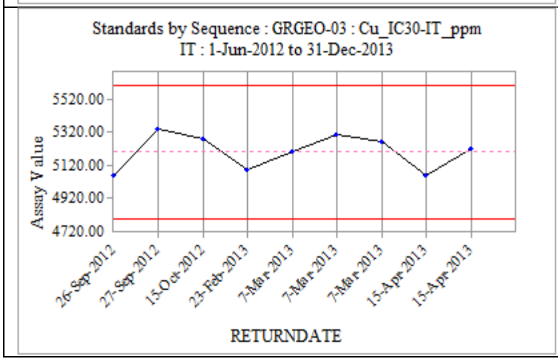
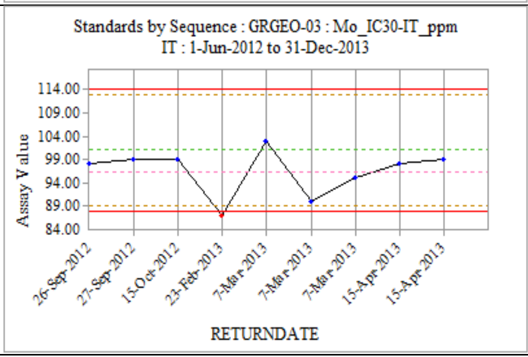
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

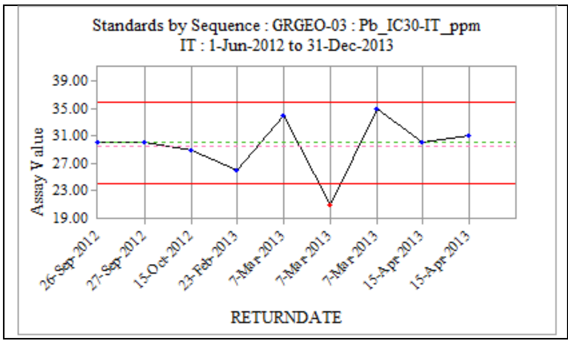

Standards by Sequence : GRGEO-03 : Zn_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

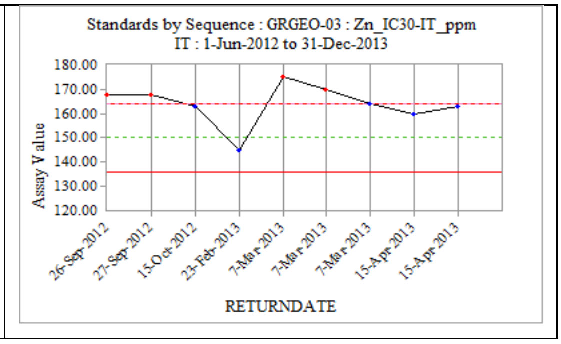

Standards by Sequence : GRGEO-03 : Ag_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

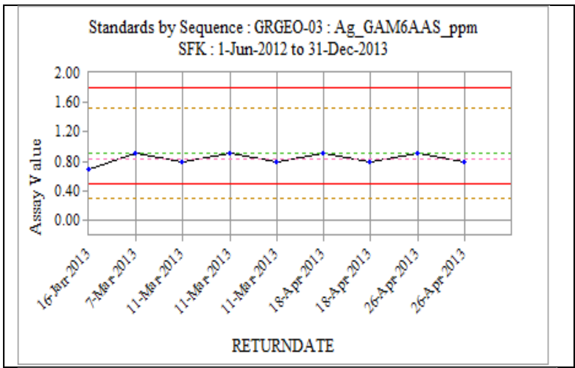

Standards by Sequence : GRGEO-03 : Au_FA30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

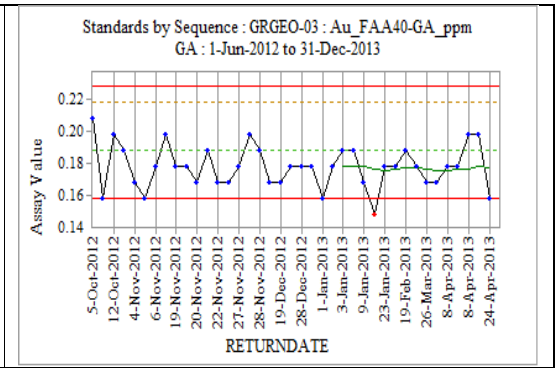

Standards by Sequence : GRGEO-03 : Cu_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

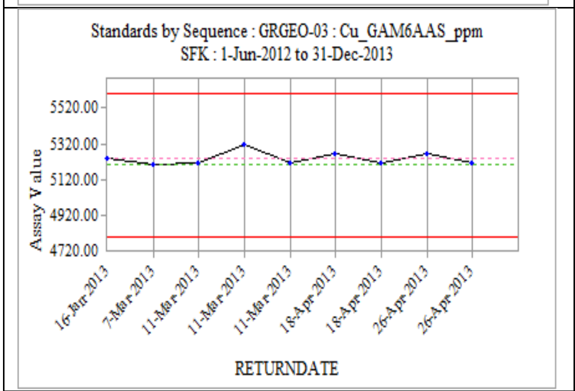

Standards by Sequence : GRGEO-03 : Mo_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

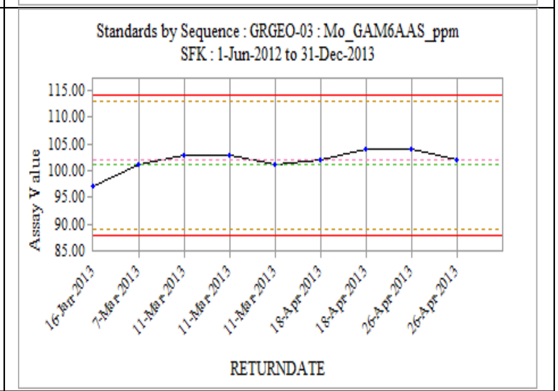


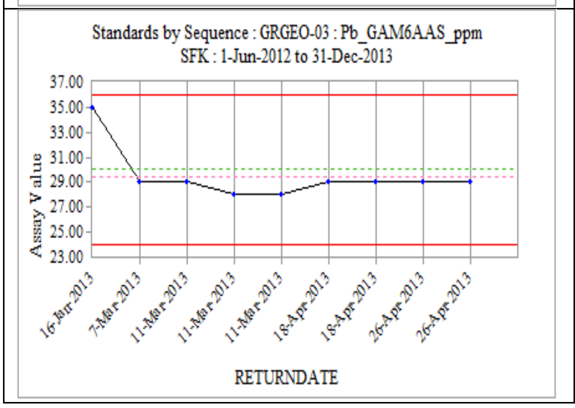


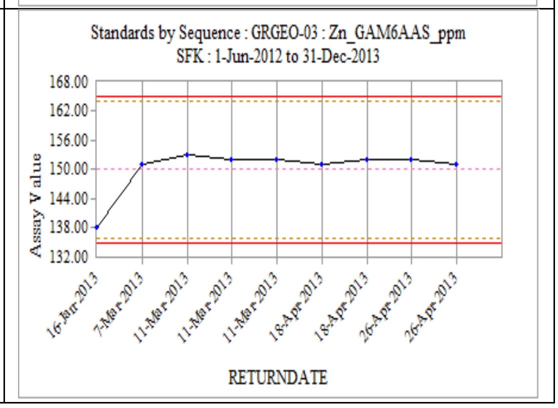




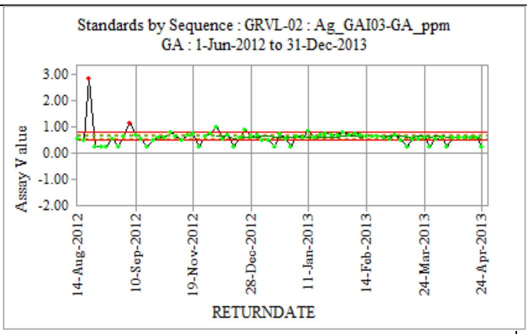


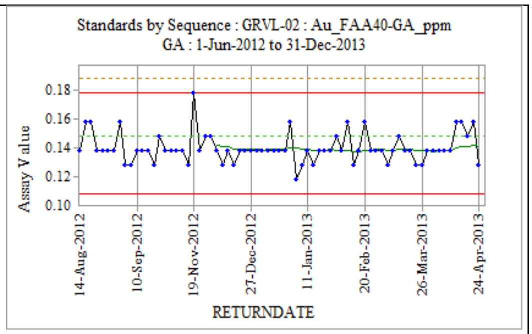






Standard type: GRVL-02


Standards by Sequence : GRVL-02 : Ag_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE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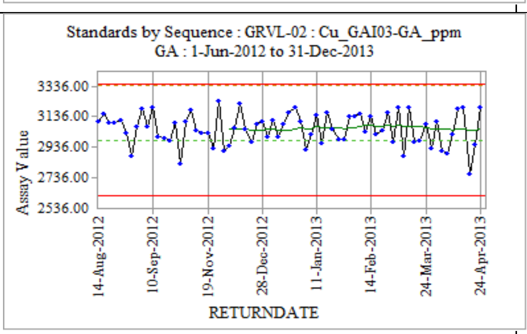
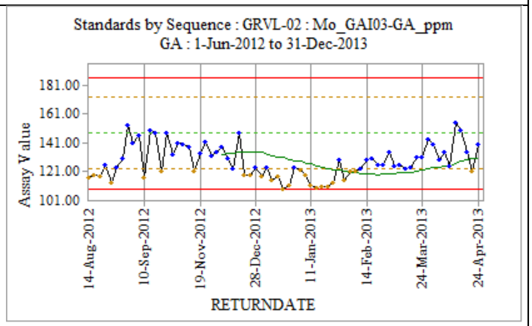
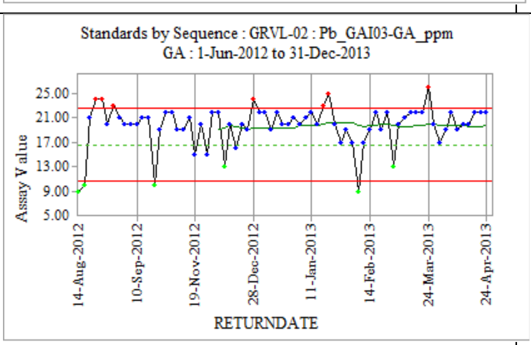
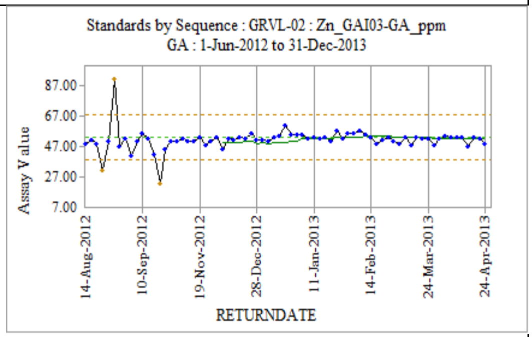
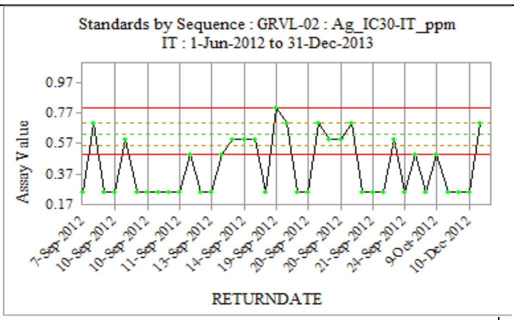
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

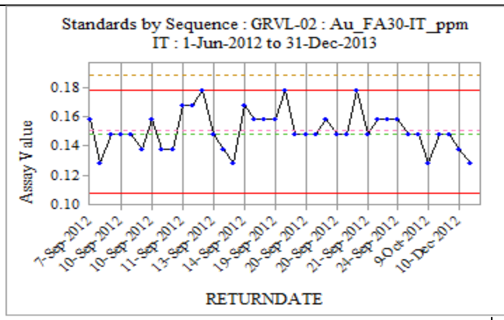

Standards by Sequence : GRVL-02 : Cu_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

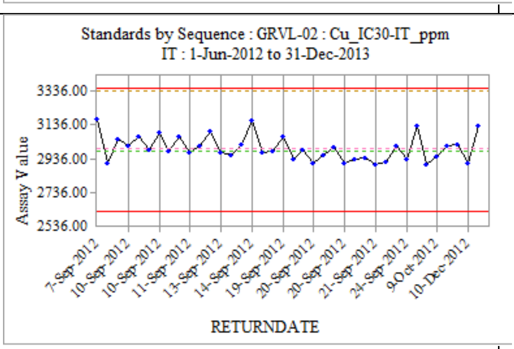

Standards by Sequence : GRVL-02 : Mo_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

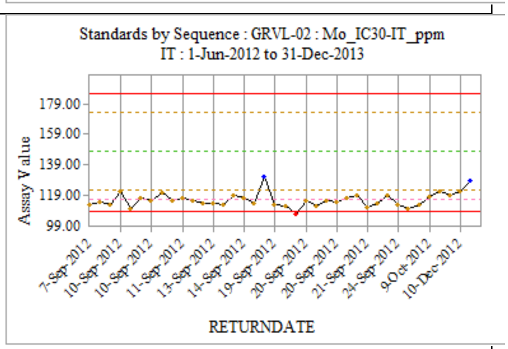

Standards by Sequence : GRVL-02 : Pb_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

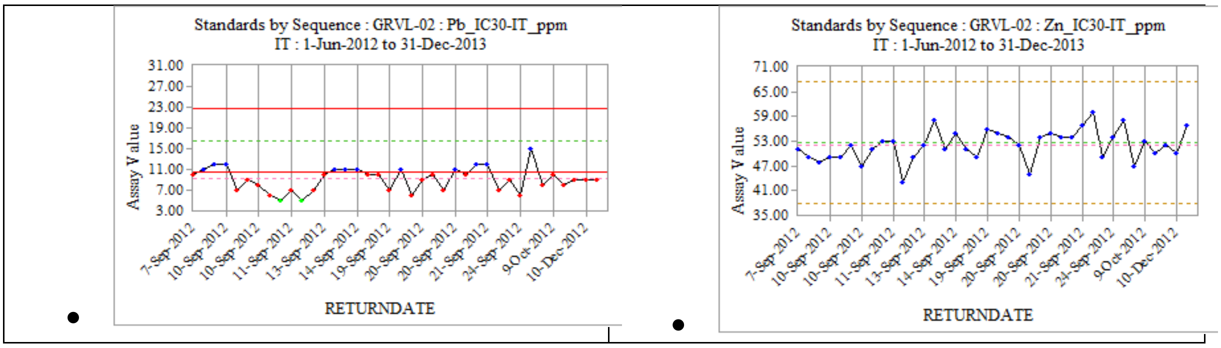

Standards by Sequence : GRVL-02 : Zn_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

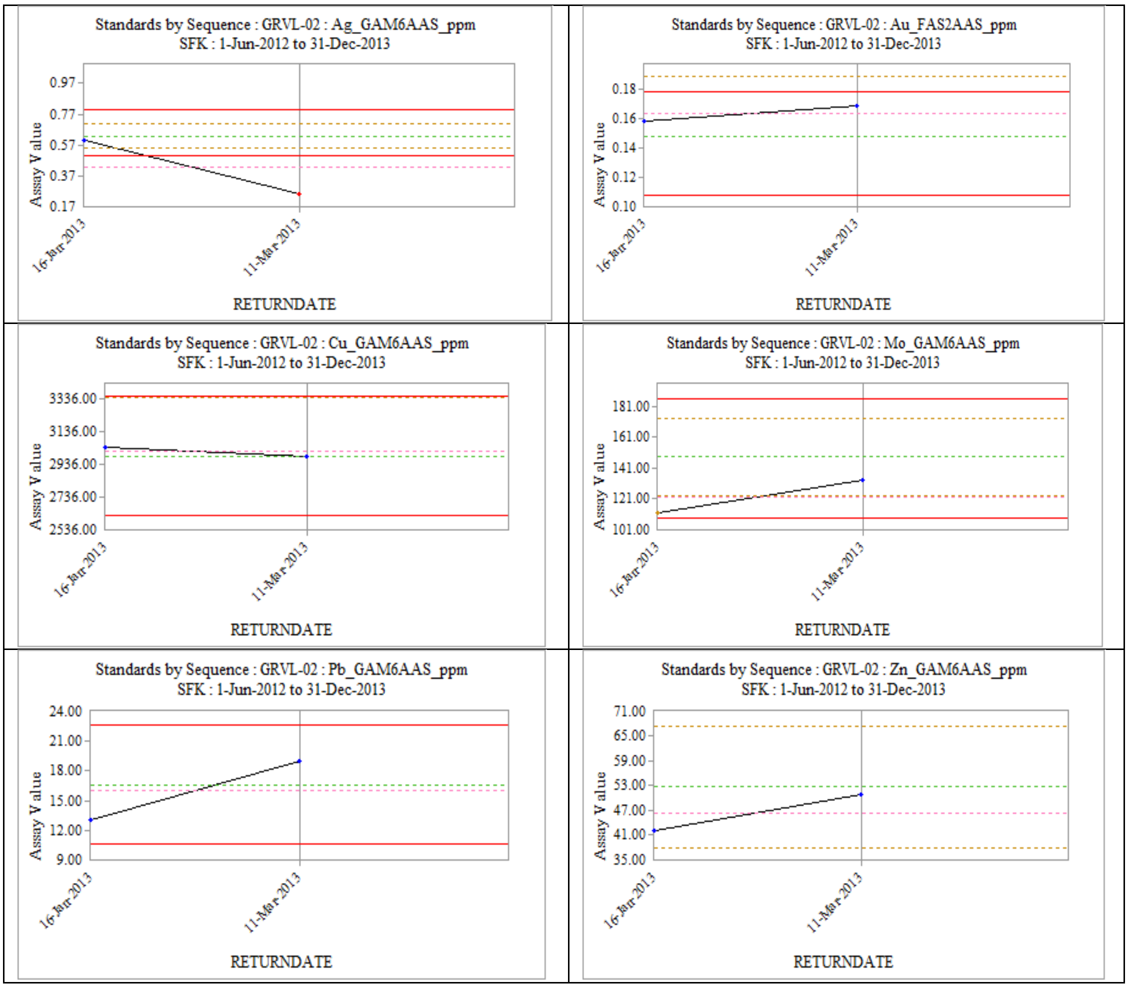

Standards by Sequence : GRVL-02 : Ag_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : GRVL-02 : Au_FA30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : GRVL-02 : Cu_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : GRVL-02 : Mo_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE





- Standard type: MLZLG-04
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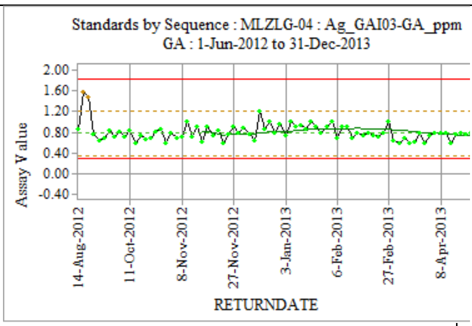
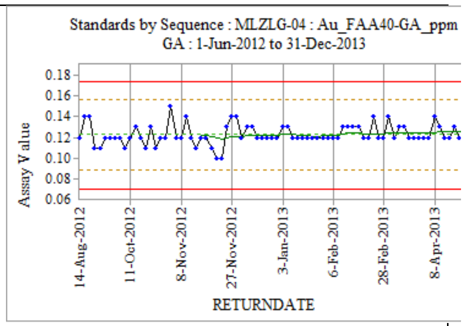
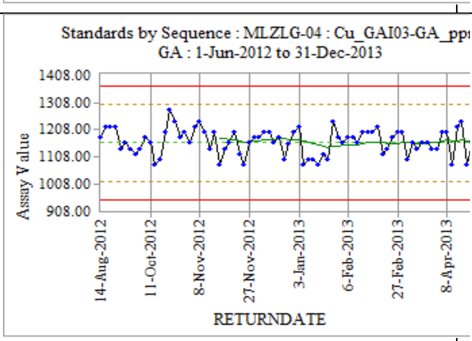
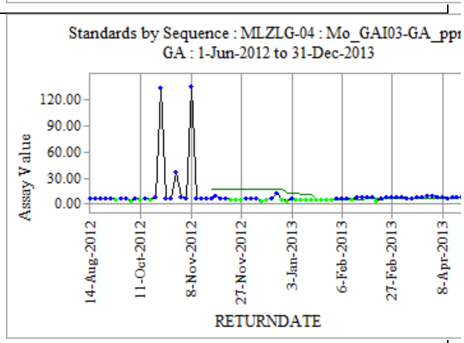
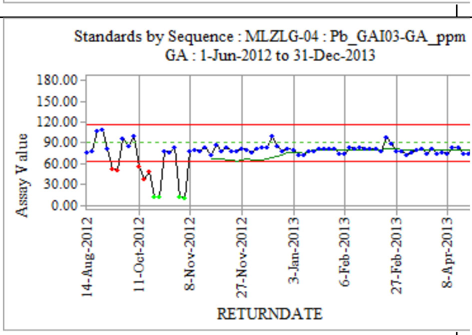
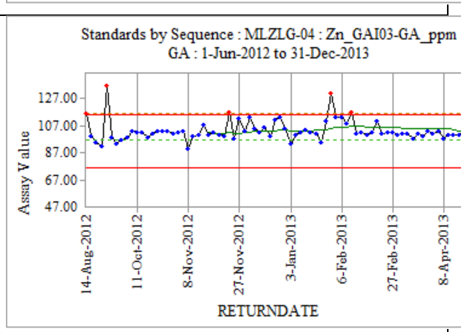

Standards by Sequence : MLZLG-04 : Ag_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
2.00
1.60
1.20
0.80
0.40
0.00
-0.40
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
27-Feb-2013
8-Apr-2013
RETURNDATE

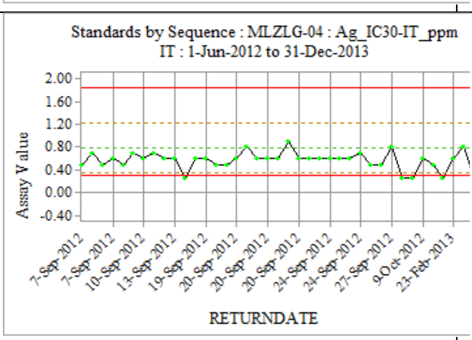

Standards by Sequence : MLZLG-04 : Au_FAA40-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
0.18
0.16
0.14
0.12
0.10
0.08
0.06
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
28-Feb-2013
8-Apr-2013
RETURNDATE

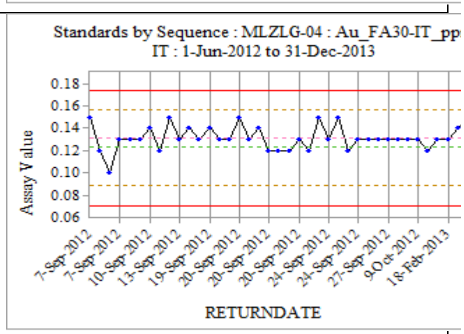

Standards by Sequence : MLZLG-04 : Cu_GAI03-GA_ppi
GA : 1-Jun-2012 to 31-Dec-2013
1408.00
1308.00
1208.00
1108.00
1008.00
908.00
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
27-Feb-2013
8-Apr-2013
RETURNDATE

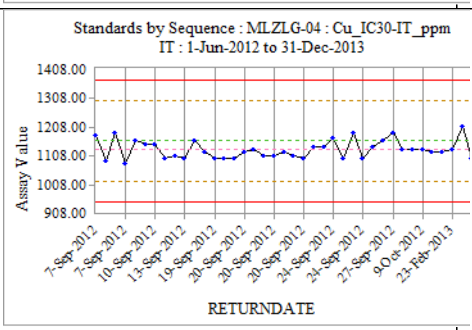

Standards by Sequence : MLZLG-04 : Mo_GAI03-GA_ppi
GA : 1-Jun-2012 to 31-Dec-2013
120.00
90.00
60.00
30.00
0.00
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
27-Feb-2013
8-Apr-2013
RETURNDATE

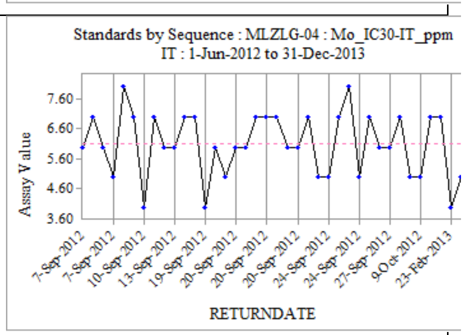

Standards by Sequence : MLZLG-04 : Pb_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
180.00
150.00
120.00
90.00
60.00
30.00
0.00
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
27-Feb-2013
8-Apr-2013
RETURNDATE


Standards by Sequence : MLZLG-04 : Zn_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
127.00
107.00
87.00
67.00
47.00
Assay Value
14-Aug-2012
11-Oct-2012
8-Nov-2012
27-Nov-2012
3-Jan-2013
6-Feb-2013
27-Feb-2013
8-Apr-2013
RETURNDATE


Standards by Sequence : MLZLG-04 : Ag_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
2.00
1.60
1.20
0.80
0.40
0.00
-0.40
Assay Value
7-Sep-2012
7-Sep-2012
10-Sep-2012
13-Sep-2012
19-Sep-2012
20-Sep-2012
20-Sep-2012
20-Sep-2012
24-Sep-2012
24-Sep-2012
27-Sep-2012
9-Oct-2012
23-Feb-2013
RETURNDATE


Standards by Sequence : MLZLG-04 : Au_FA30-IT_pp
IT : 1-Jun-2012 to 31-Dec-2013
0.18
0.16
0.14
0.12
0.10
0.08
0.06
Assay Value
7-Sep-2012
7-Sep-2012
10-Sep-2012
13-Sep-2012
19-Sep-2012
20-Sep-2012
20-Sep-2012
20-Sep-2012
24-Sep-2012
24-Sep-2012
27-Sep-2012
9-Oct-2012
18-Feb-2013
RETURNDATE


Standards by Sequence : MLZLG-04 : Cu_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
1408.00
1308.00
1208.00
1108.00
1008.00
908.00
Assay Value
7-Sep-2012
7-Sep-2012
10-Sep-2012
13-Sep-2012
19-Sep-2012
20-Sep-2012
20-Sep-2012
20-Sep-2012
24-Sep-2012
24-Sep-2012
27-Sep-2012
9-Oct-2012
23-Feb-2013
RETURNDATE


Standards by Sequence : MLZLG-04 : Mo_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
7.60
6.60
5.60
4.60
3.60
Assay Value
7-Sep-2012
7-Sep-2012
10-Sep-2012
13-Sep-2012
19-Sep-2012
20-Sep-2012
20-Sep-2012
20-Sep-2012
24-Sep-2012
24-Sep-2012
27-Sep-2012
9-Oct-2012
23-Feb-2013
RETURNDATE

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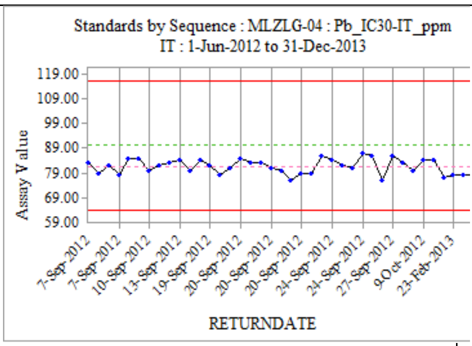

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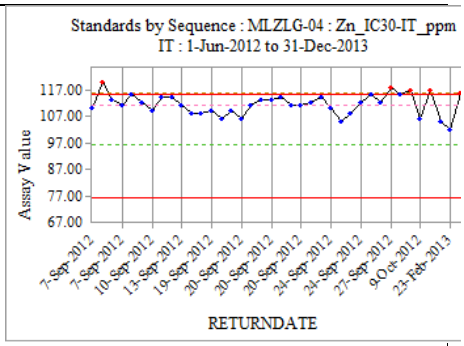
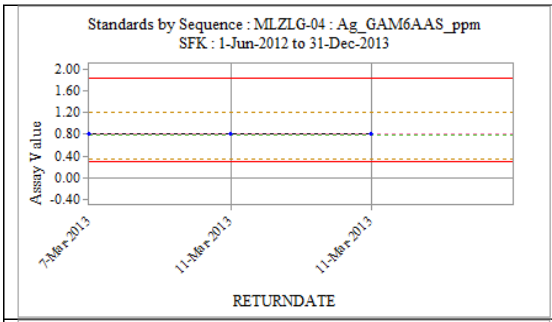
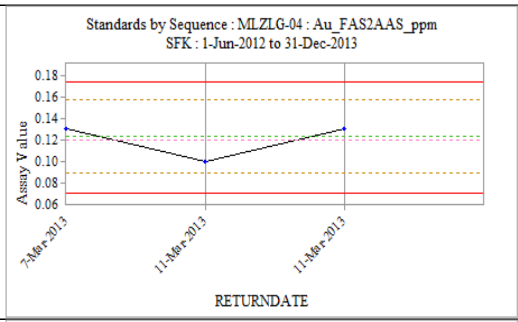
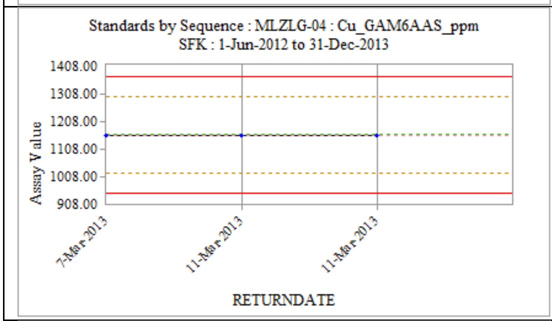
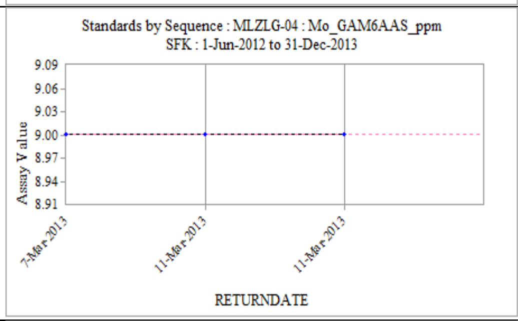
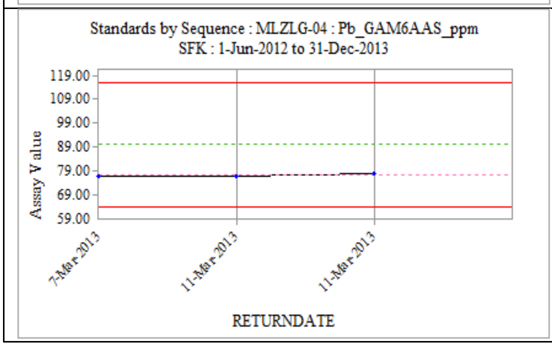


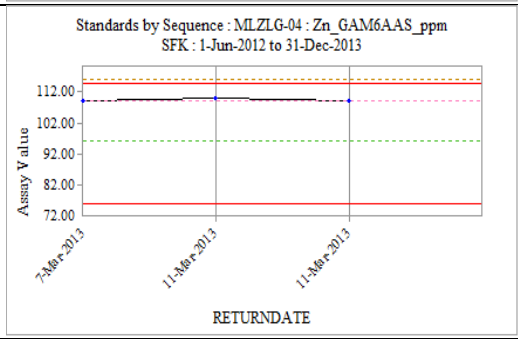




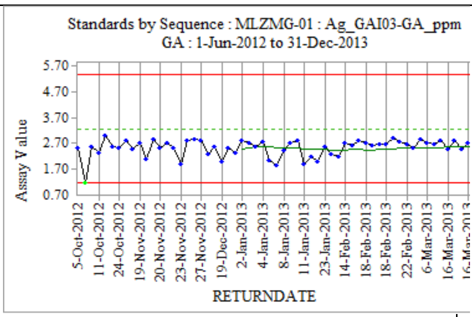


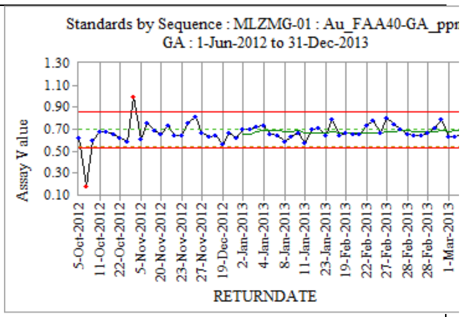


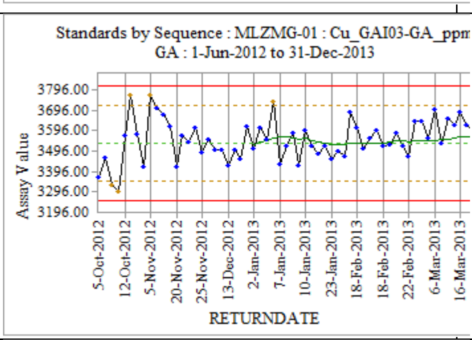


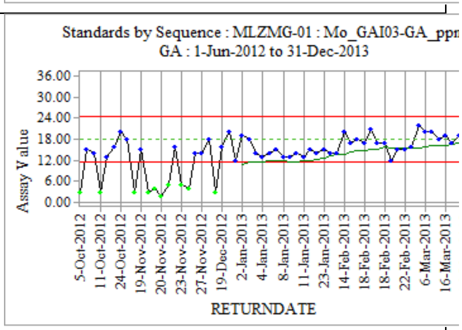


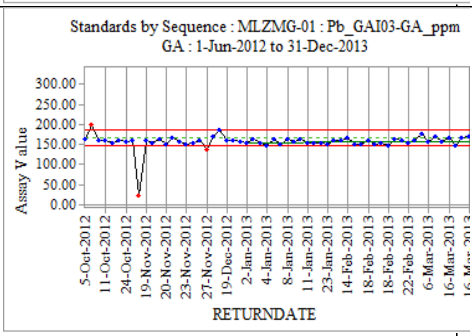
- Standard type: MLZMG-01

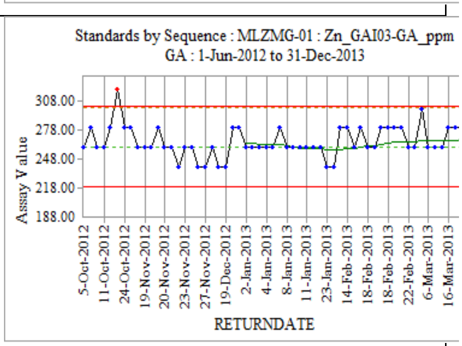

Standards by Sequence : MLZMG-01 : Ag_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

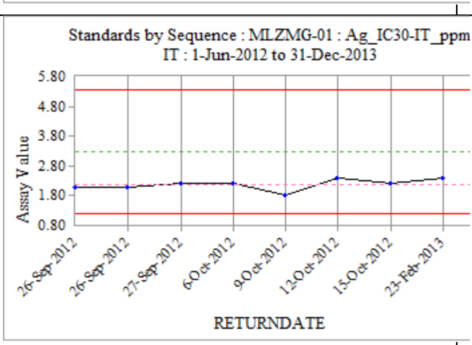

Standards by Sequence : MLZMG-01 : Au_FAA40-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

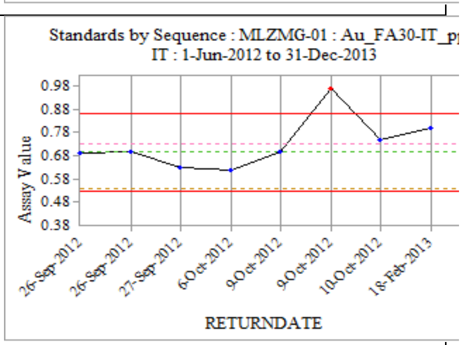

Standards by Sequence : MLZMG-01 : Cu_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

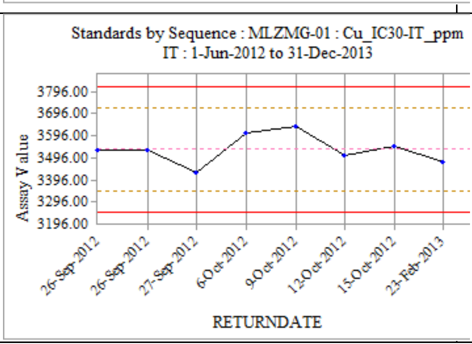

Standards by Sequence : MLZMG-01 : Mo_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

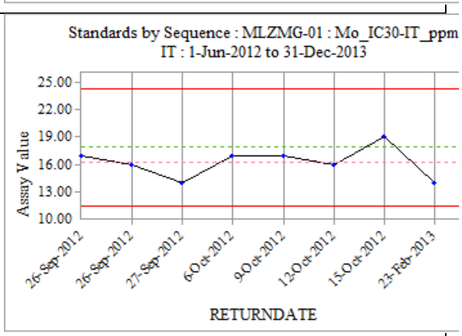

Standards by Sequence : MLZMG-01 : Pb_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

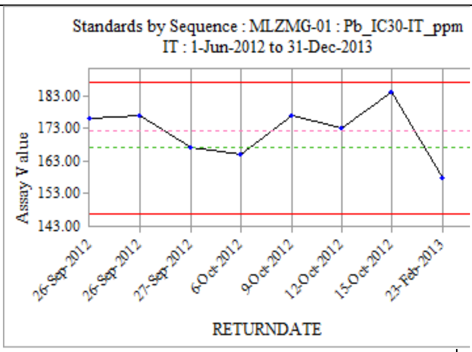

Standards by Sequence : MLZMG-01 : Zn_GAI03-GA_ppm
GA : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

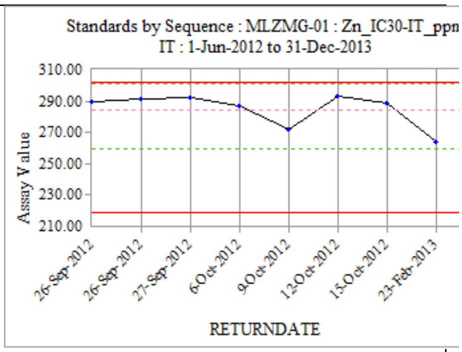

Standards by Sequence : MLZMG-01 : Ag_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : MLZMG-01 : Au_FA30-IT_p
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE


Standards by Sequence : MLZMG-01 : Cu_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

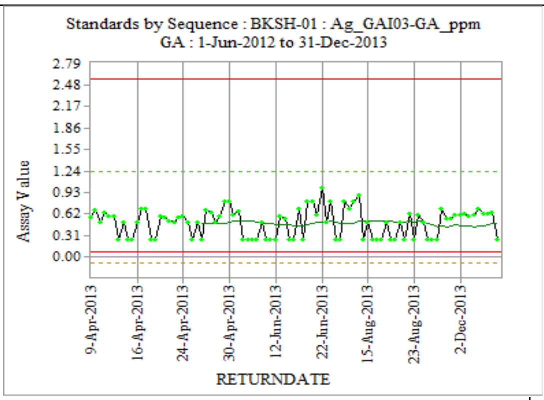

Standards by Sequence : MLZMG-01 : Mo_IC30-IT_ppm
IT : 1-Jun-2012 to 31-Dec-2013
Assay Value
RETURNDATE

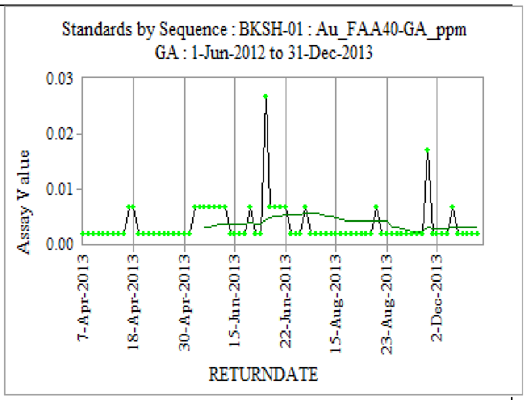


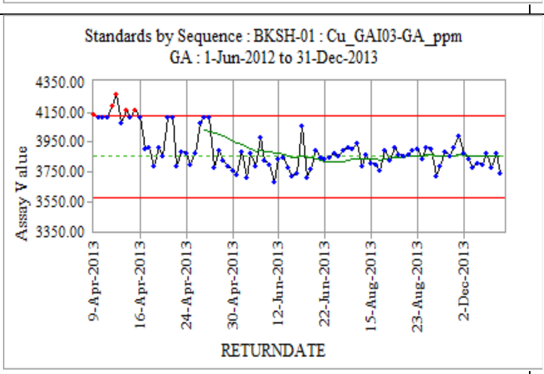


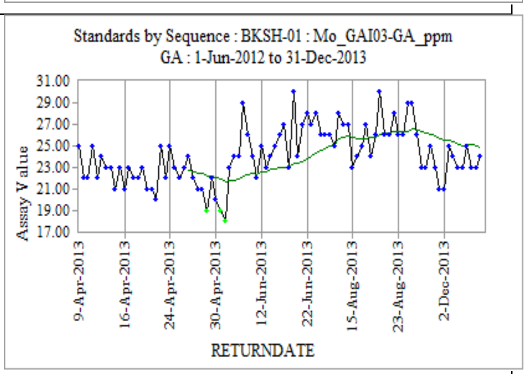
Appendix2: Standard samples performance by date sequence inserted on Spot samples direct download from AcQuire from Geoassay and Intertek Lab.

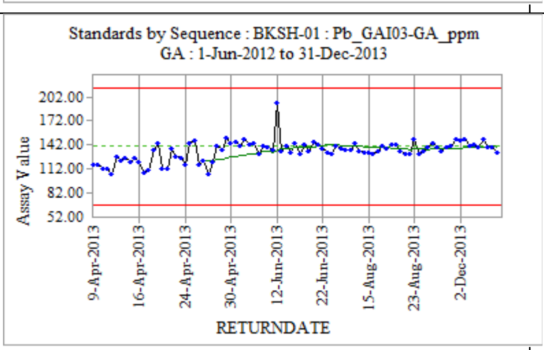
- Standard type: BKSH-01

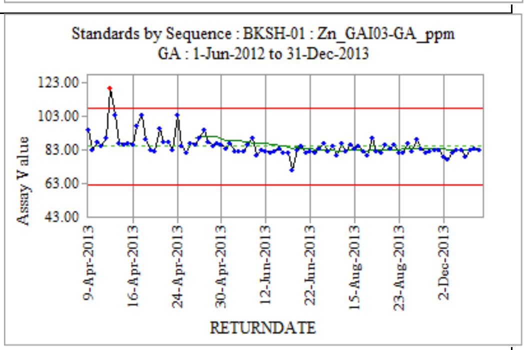




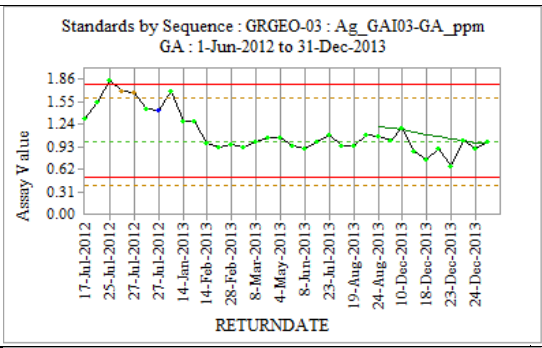


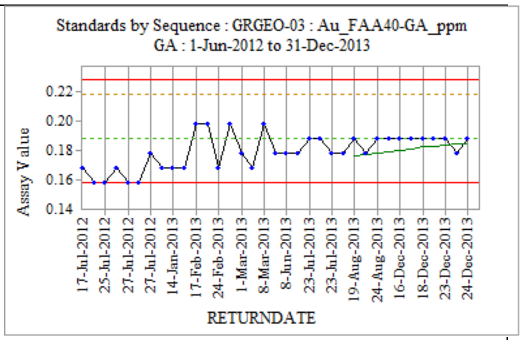


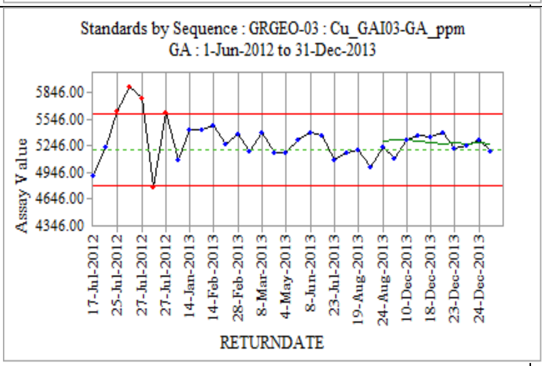


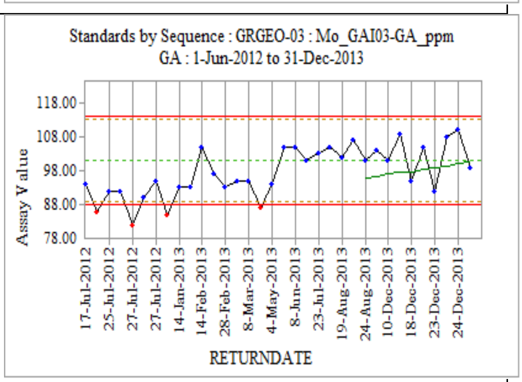


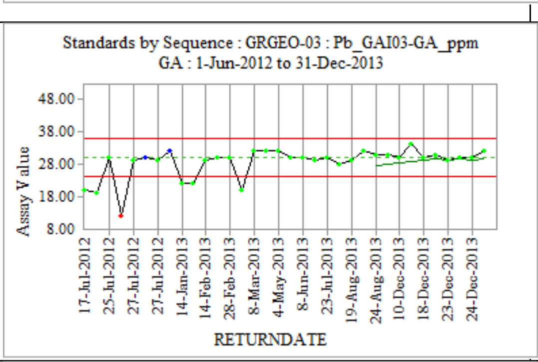
- Standard type: GRGEO-03

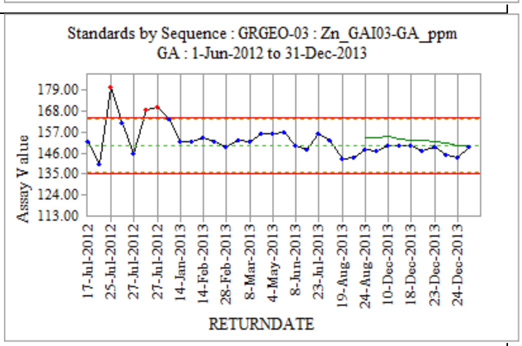


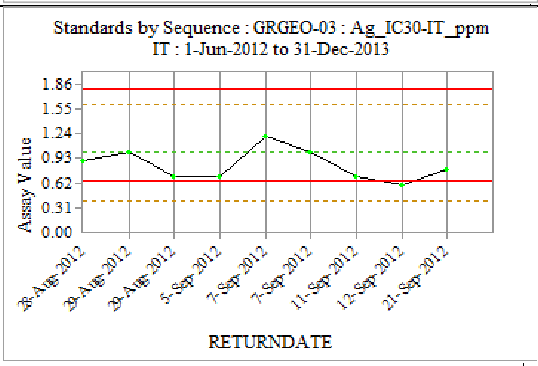


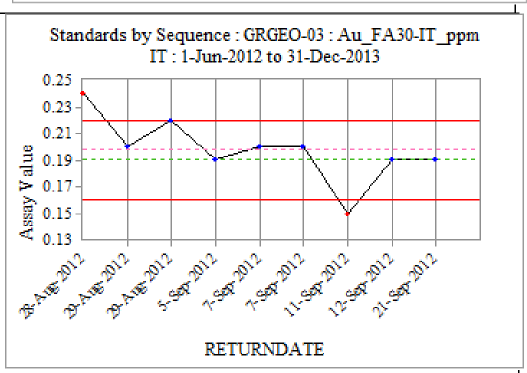


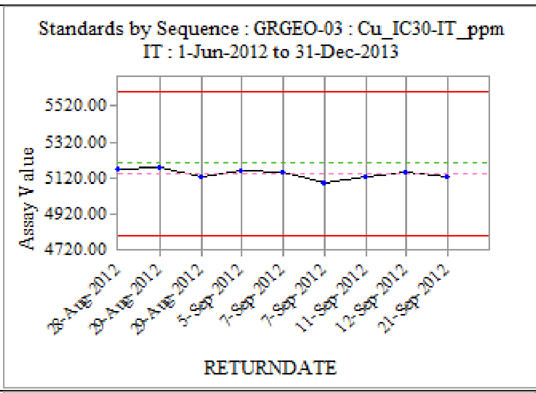


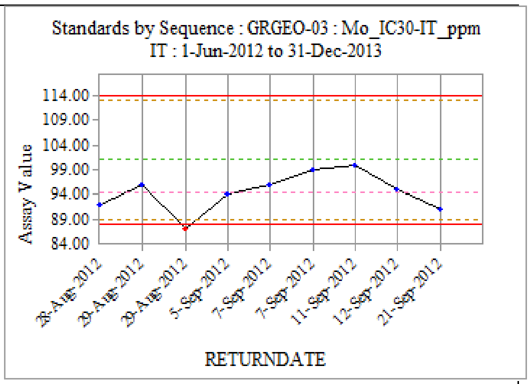


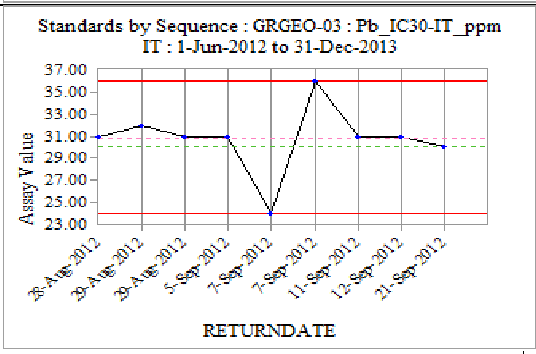


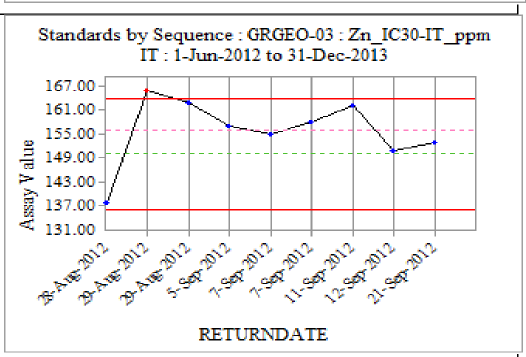




- 

- 

- 

- 

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- Standard type: GRVL-02
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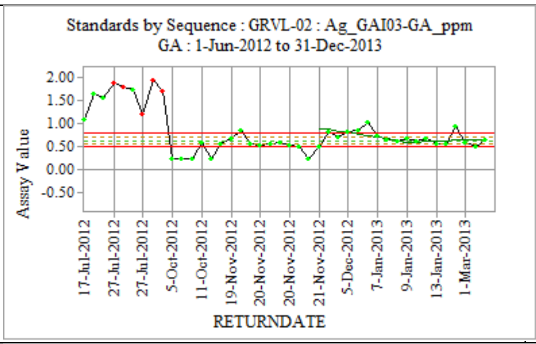
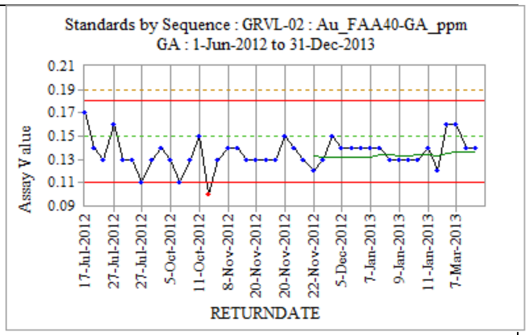
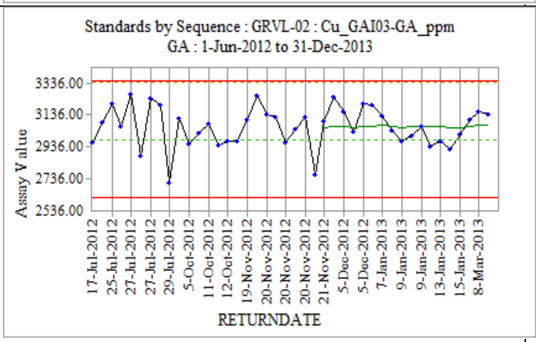
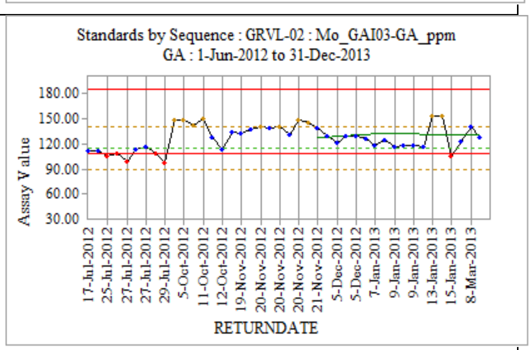
- 

- 

- 

- 

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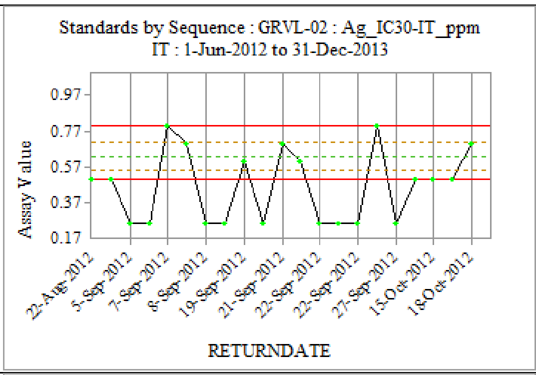

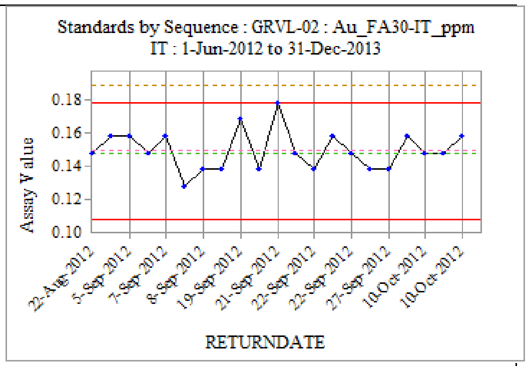

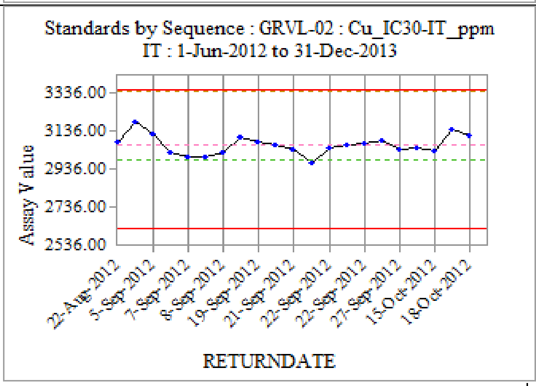

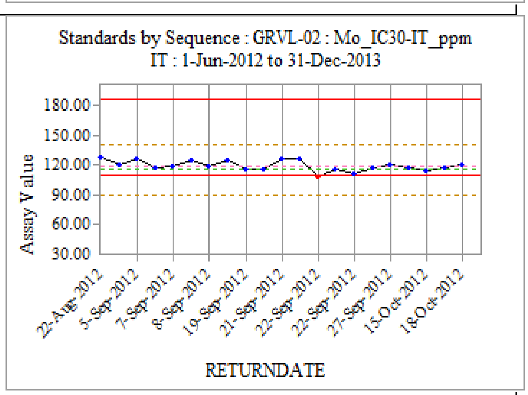

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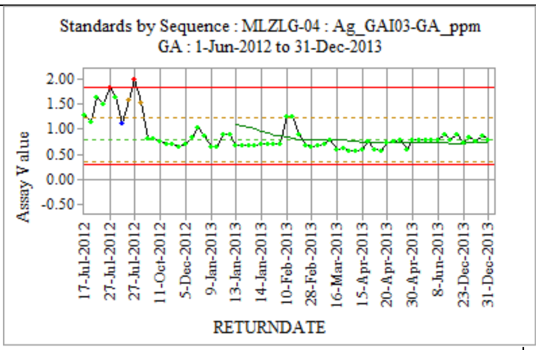
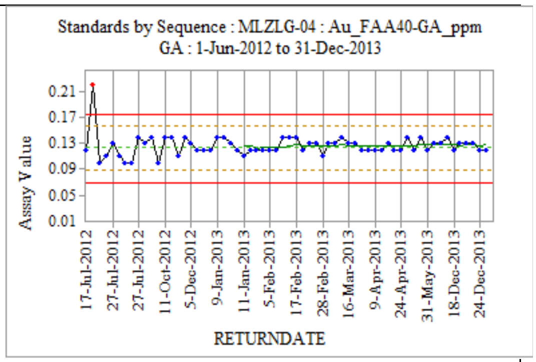
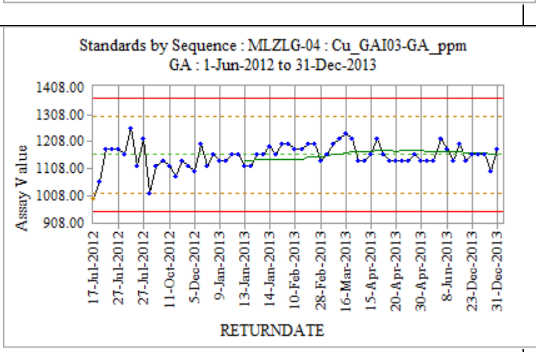
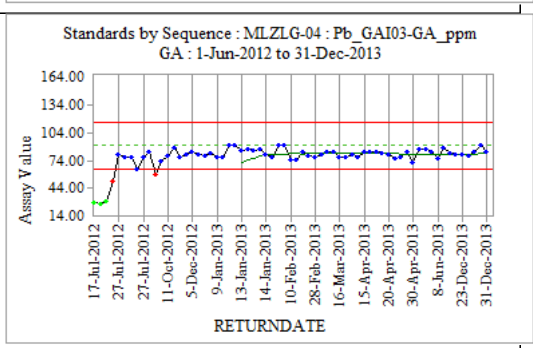
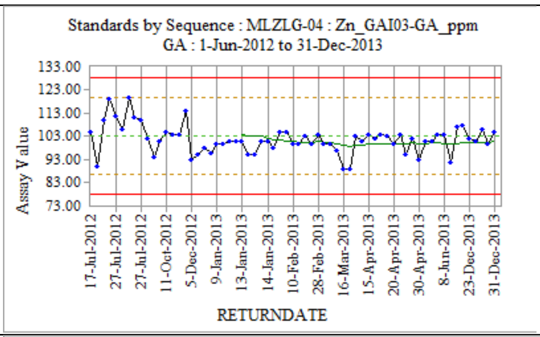
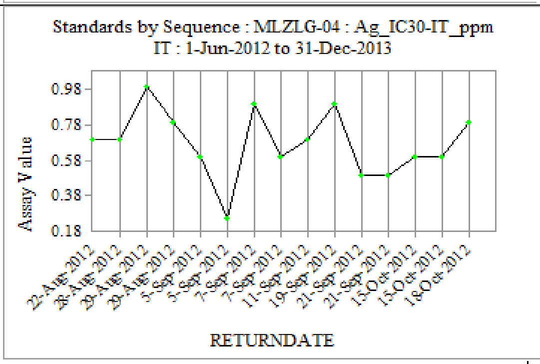


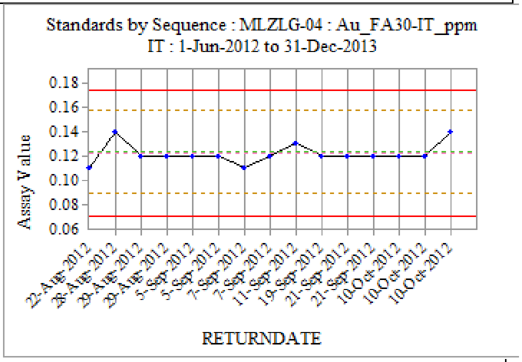


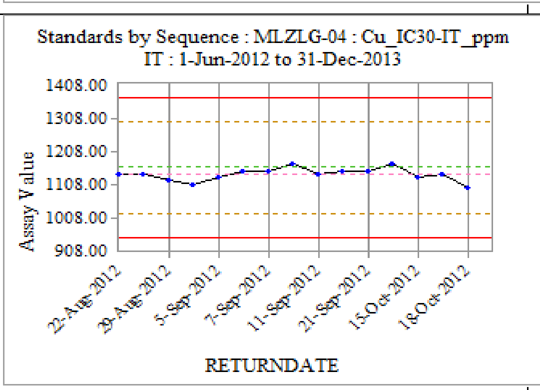


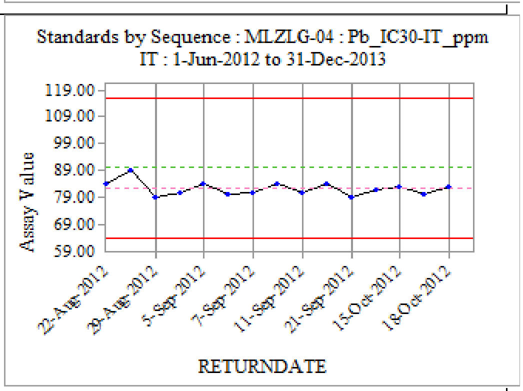


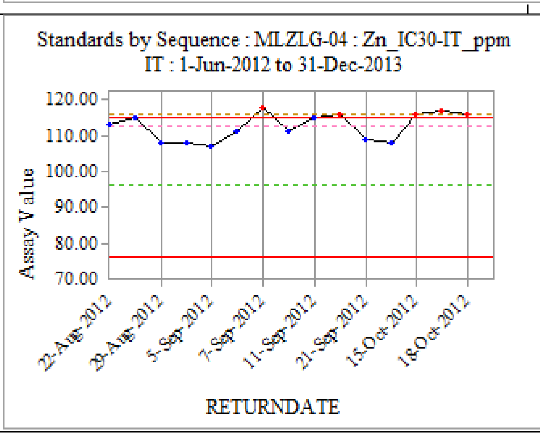




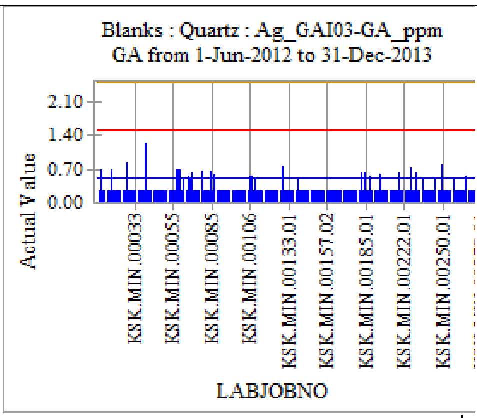


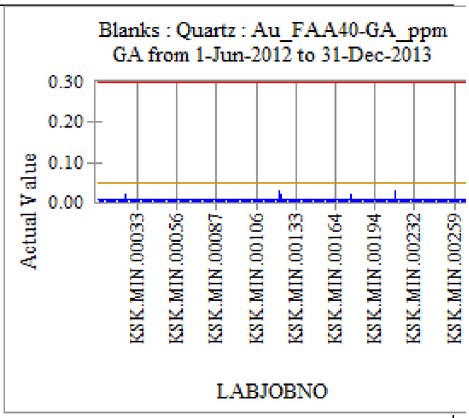


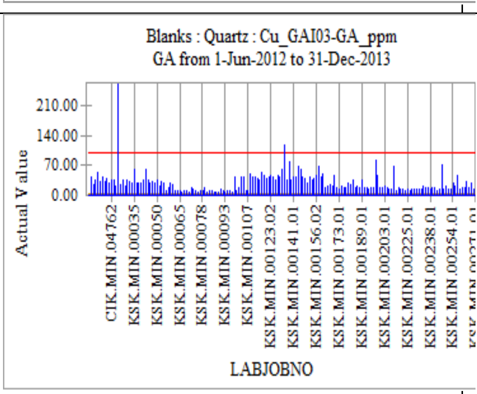


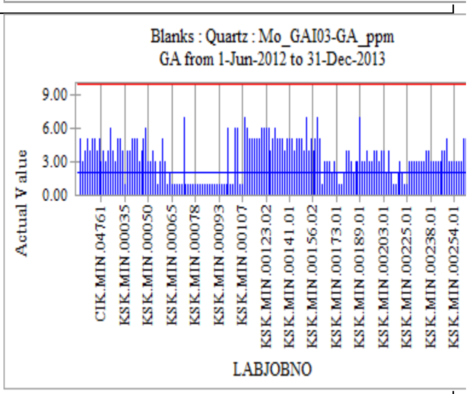


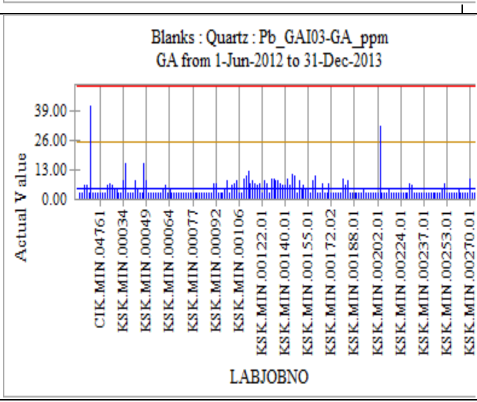
Appendix3: Blank performance by date sequence inserted on Drill core samples from Geoassay Laboratory.

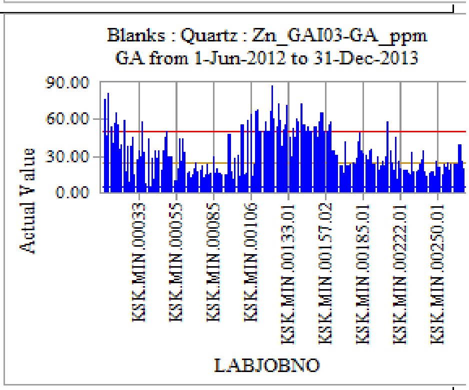




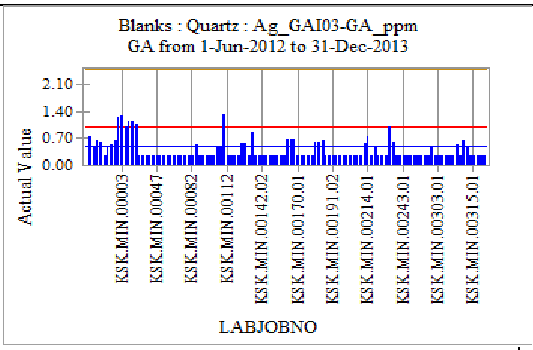


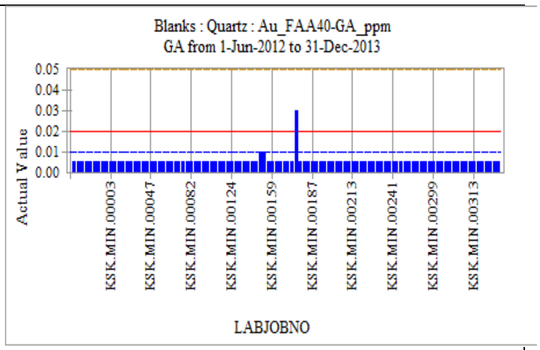


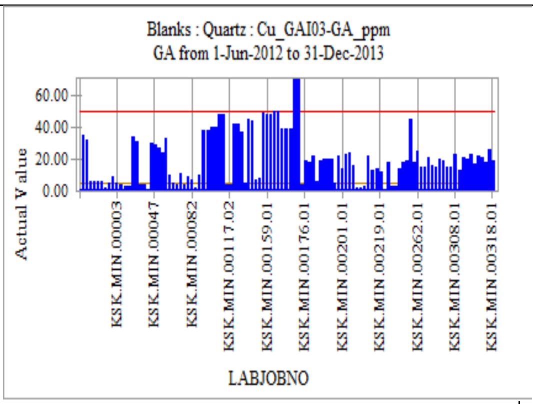


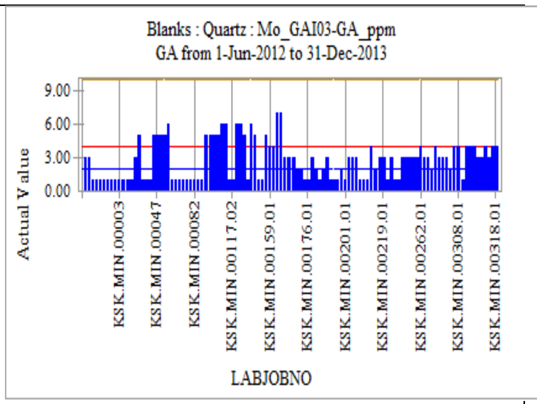


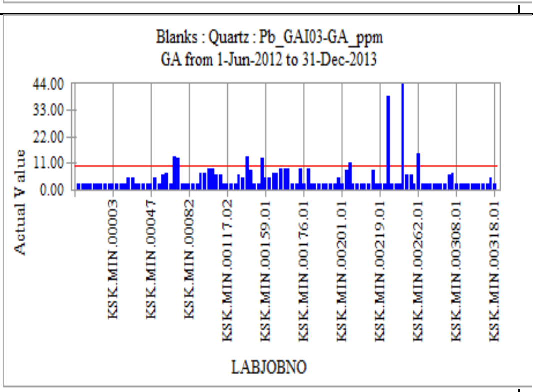
Appendix4: Blank performance by date sequence inserted on Spot samples direct download from AcQuire from Geoassay Laboratory.

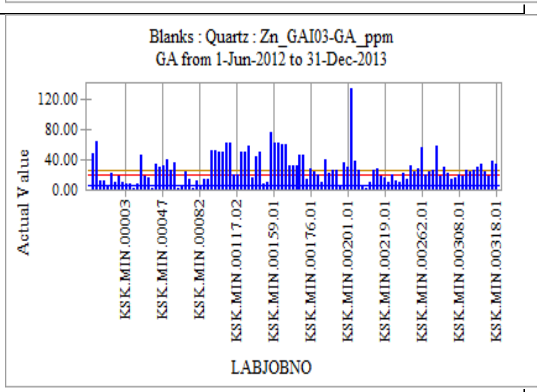




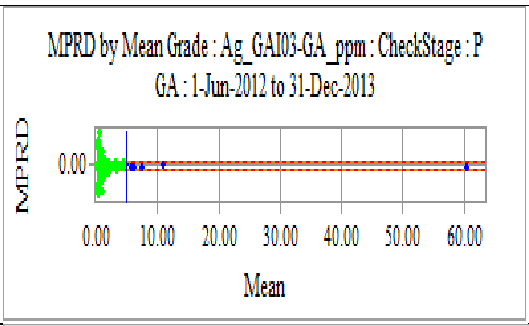


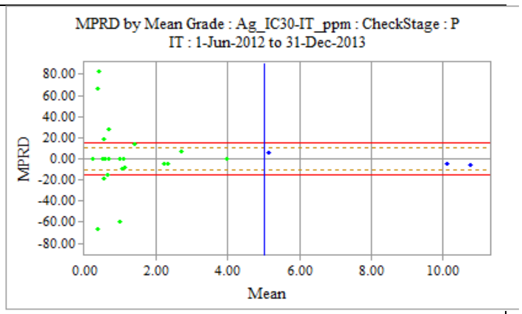


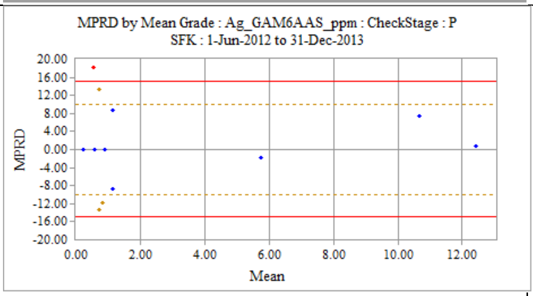


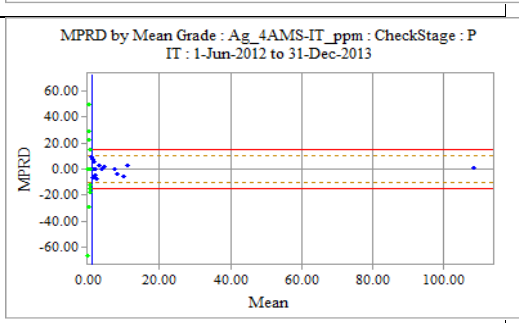


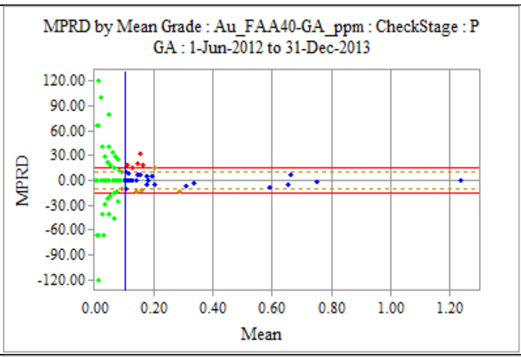
- Appendix5: Paired data by date sequence direct download from AcQuire from Geoassay and Intertek Lab.







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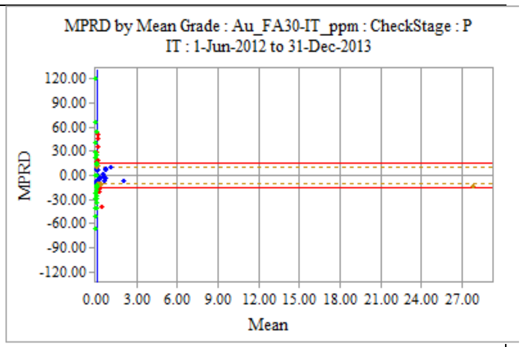
GA : 1-Jun-2012 to 31-Dec-2013
MPRD
Mean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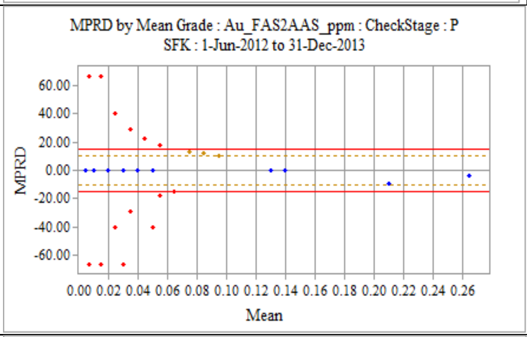
IT : 1-Jun-2012 to 31-Dec-2013
MPRD
Mean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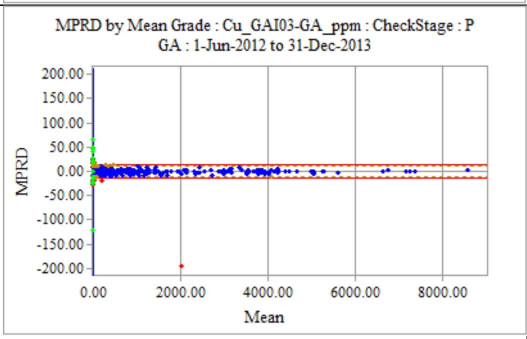
SFK : 1-Jun-2012 to 31-Dec-2013
MPRD
Mean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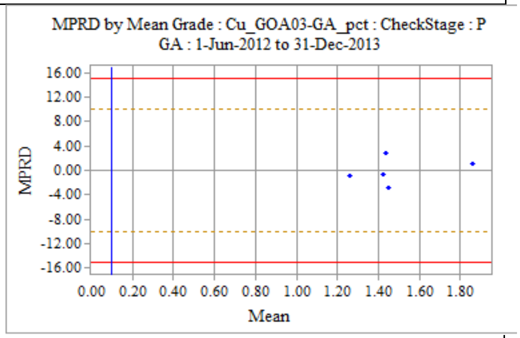
MPRD
Mean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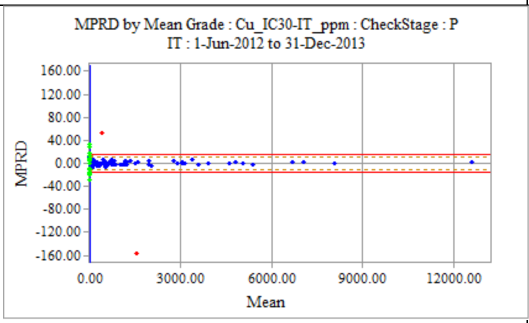
MPRD
Mean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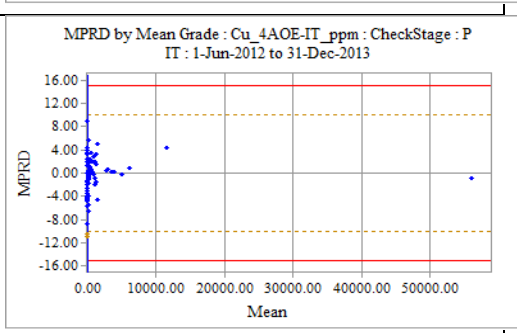
MPRD
Mean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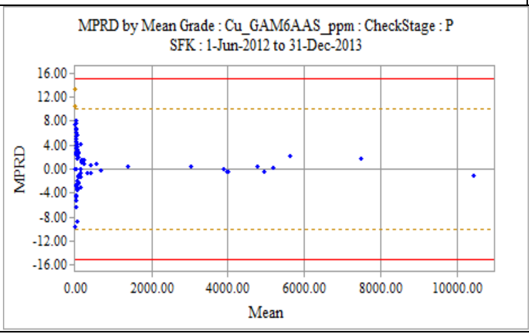
MPRD
Mean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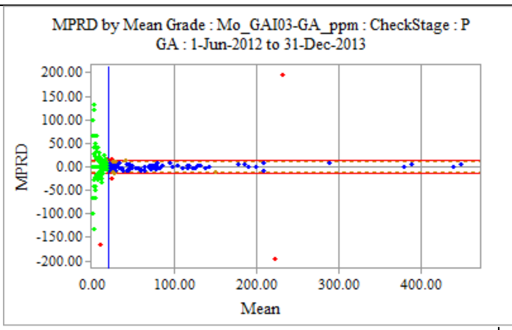
MPRD
Mean

- 
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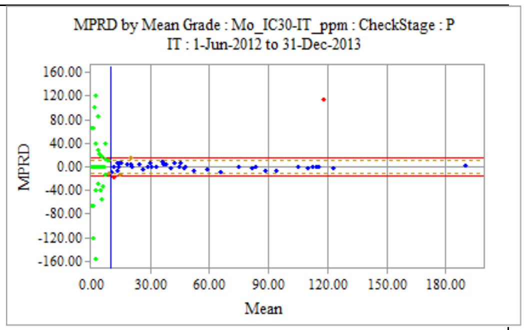
MPRD
Mean

- 
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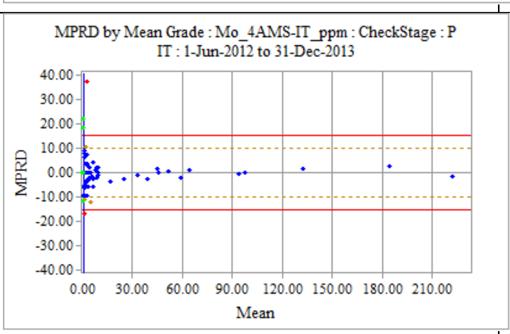
MPRD
Mean

- 
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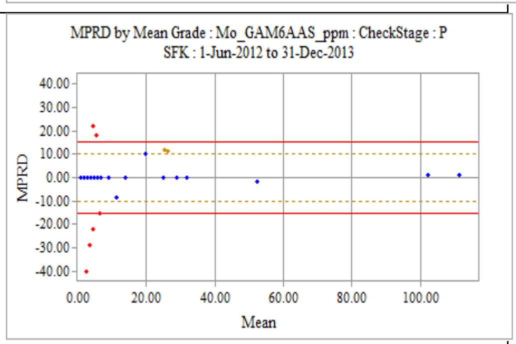
MPRD
Mean

- 
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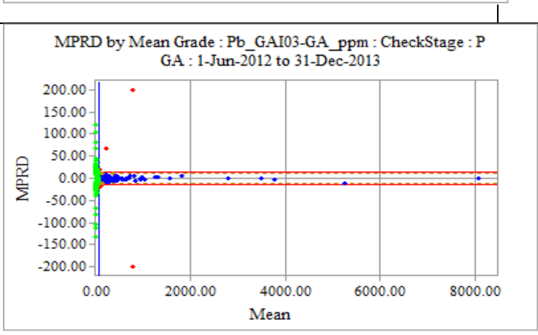
MPRD
Mean

- 
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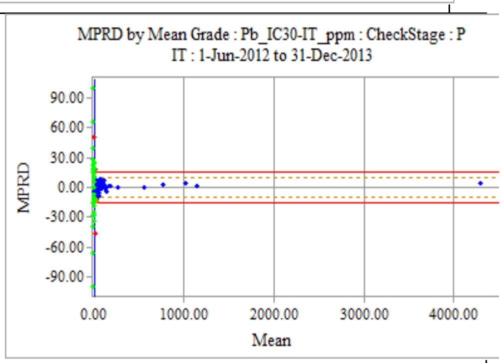
Mean

- 
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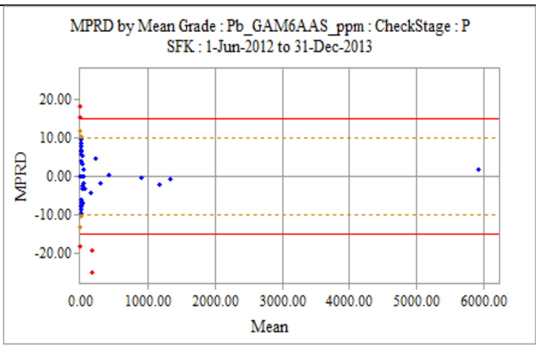
MPRD
Mean

- 
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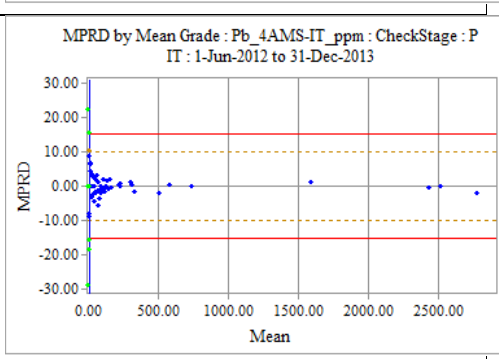
SFK : 1-Jun-2012 to 31-Dec-2013
MPRD
Mean

- 
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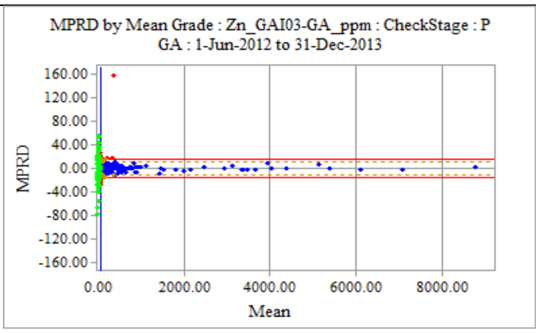
IT : 1-Jun-2012 to 31-Dec-2013
MPRD
Mean

- 
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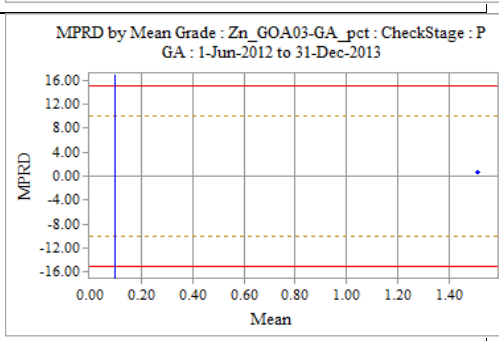
MPRD
Mean

- 
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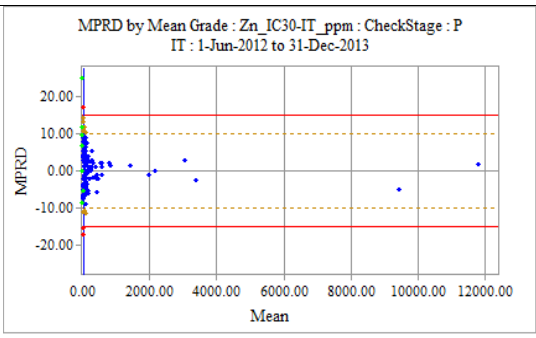
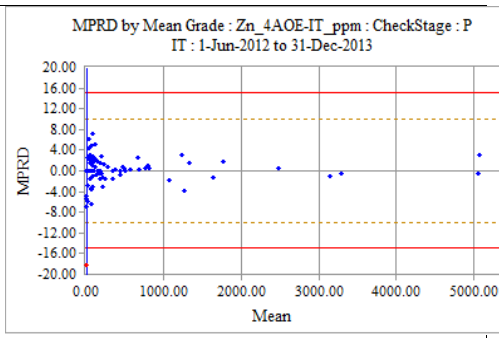
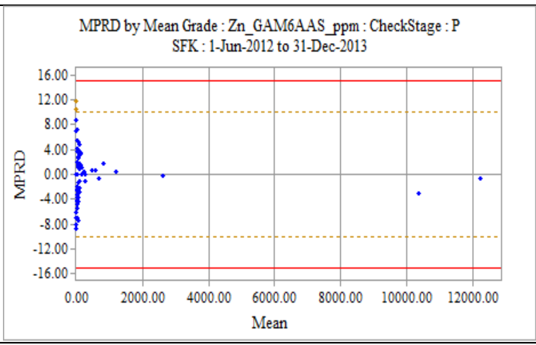
MPRD
Mean

- 

- 

- 

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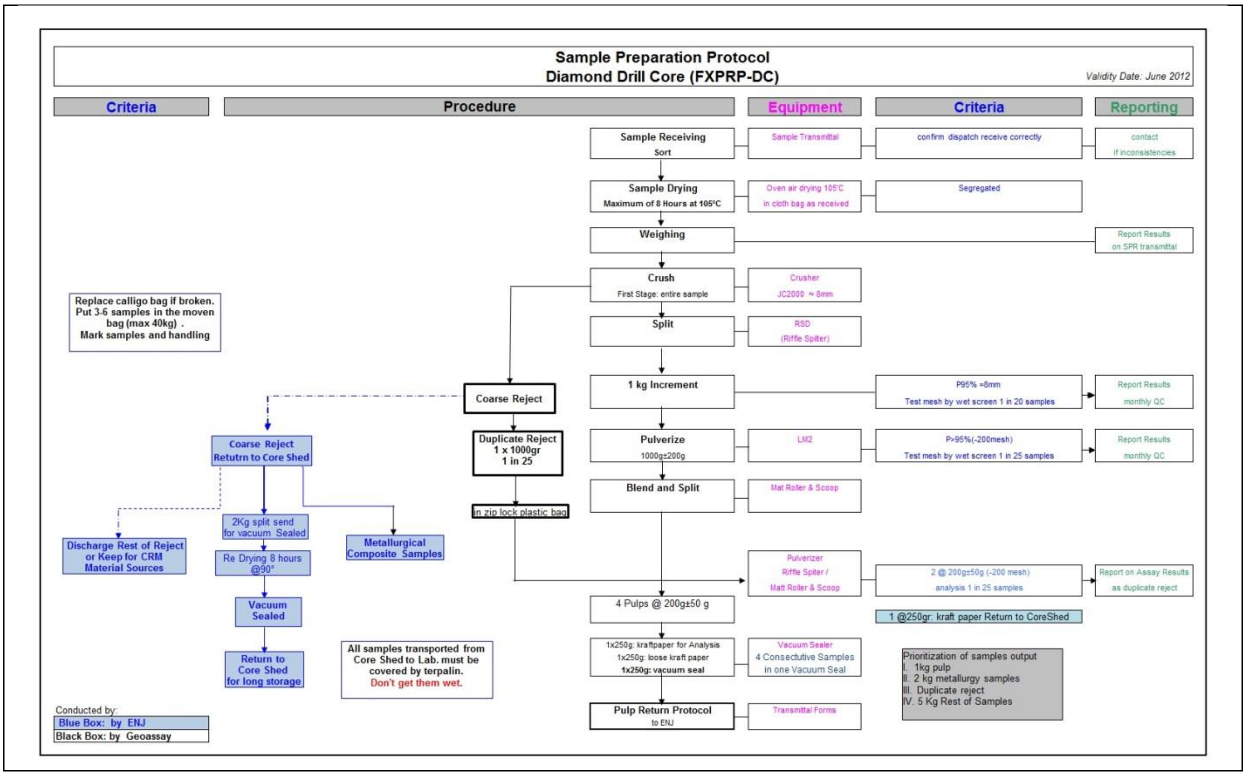
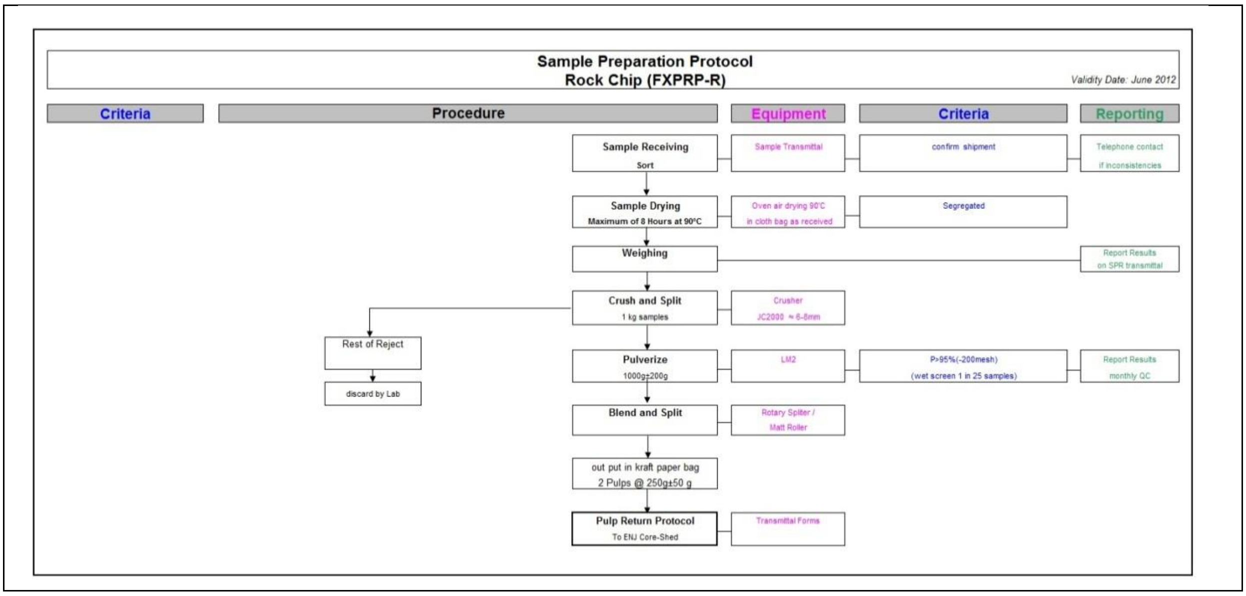
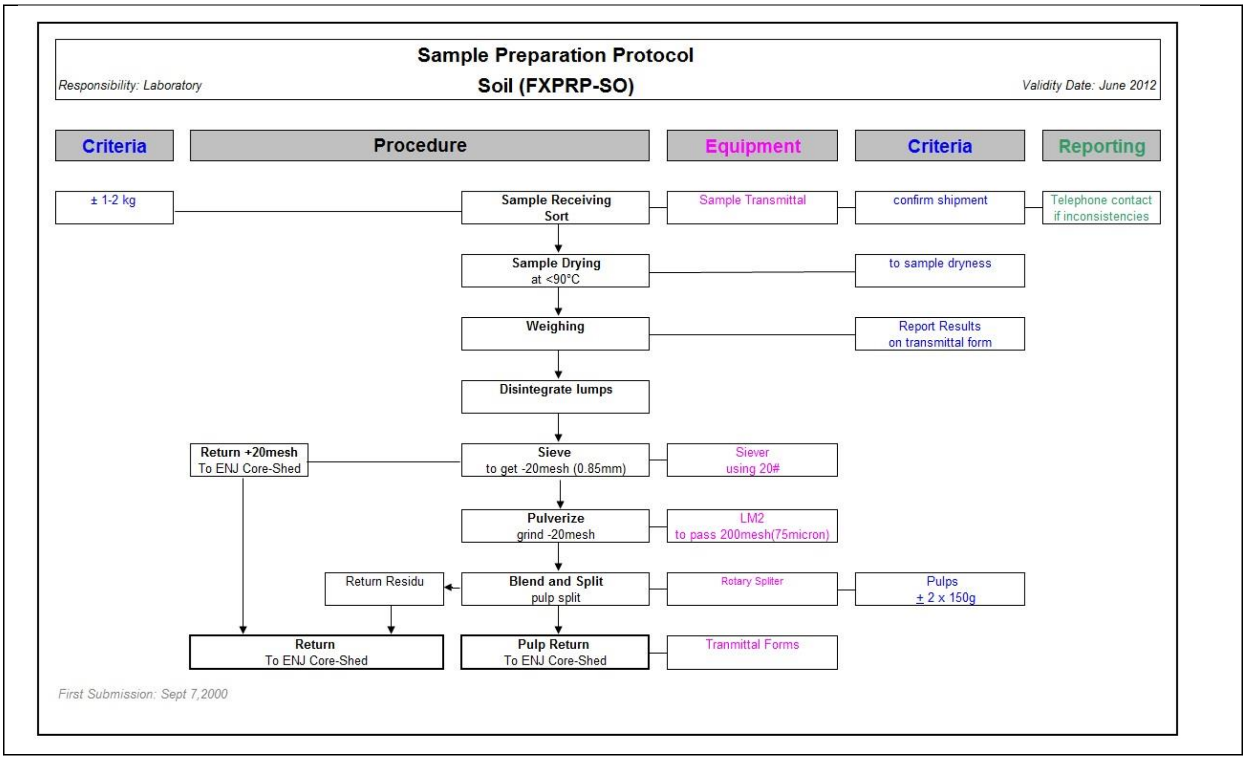
Appendix 6: Sample Preparation Protocol for Diamond Drill Core at the Geoassay Laboratory



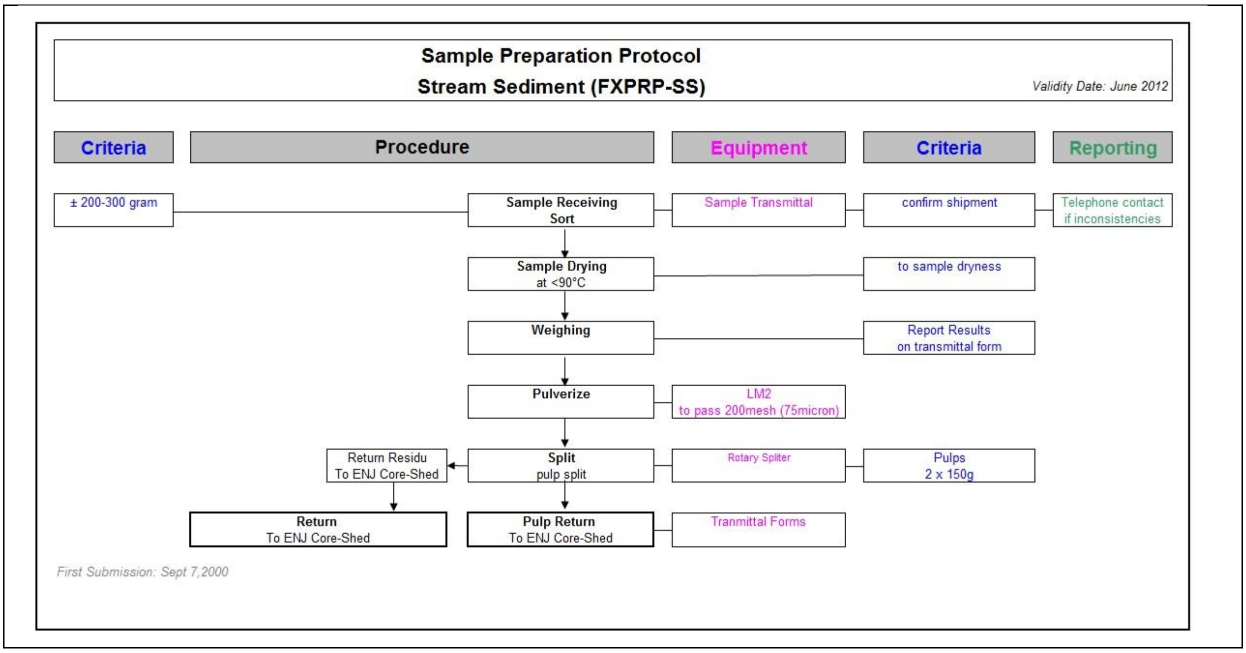
Appendix 7: Sample Preparation Protocol for Rock samples at the Geoassay Laboratory



Appendix 8: Sample Preparation Protocol for Soil samples at the Geoassay Laboratory



Appendix 9: Sample Preparation Protocol for Stream Sediment samples at the Geoassay Laboratory



Appendix 10: Analytical Methods by each Laboratory

ANALYTICAL METHOD

GOLD Analysis : Fire Assay (FA)

Geoassay	FA-40gr
Intertek	FA-30gr
Sucofindo KK	FA-30gr

Base Metal Analysis

Geoassay **ICPOES**

GAI03_DG	Three Acid Digest for ICP Trace Elements - Per Digest						
GAI03_ICP	ICPOES Single Trace Elements Determinations - per elements						
GAI03_ICP36	ICPOES Package Trace Wlements (all elements listed below) - per package						
Ag	0.5 - 100ppm	Al	0.01 - 25.0%	As	5 - 10,000ppm	Ba	10 - 10,000ppm
Be	5 - 1,000ppm	Bi	5 - 10,000ppm	Ca	0.01-10.0%	Cd	0.5 - 2,000ppm
Co	1 - 10,000ppm	Cr	2-10,000ppm	Cu	1 - 10,000ppm	Fe	0.01% - 25.0%
Ga	2-2,000ppm	K	0.01-25.0%	La	5-10,000ppm	Li	1 - 10,000ppm
Mg	0.01 - 10.0%	Mn	5-100,000ppm	Mo	2 - 10,000ppm	Na	0.01 - 10.0%
Nb	5 - 10,000ppm	Ni	5 - 10,000ppm	P	5 - 10,000ppm	Pb	5 - 10,000ppm
S	0.01 - 10.0%	Sb	5 - 1,000ppm	Sc	5 - 1,000ppm	Sn	10 - 1,000ppm
Sr	5 - 1,000ppm	Ta	5 - 10,000ppm	Ti	0.01-10%	V	2 - 10,000ppm
W	10 - 10,000ppm	Y	5- 10,000ppm	Zn	5 - 10,000ppm	Zr	5 - 10,000ppm

Over Range Cu, Pb, Zn Mo (>10,000ppm)
Reanalysis by Oregrade GOA3 AAS finish

Intertek **ICPOES**

IC30	Three Acid Digest (HCl/HNO$_3$/HClO$_4$)						
Ag	0.5ppm	Al	0.01%	As	5ppm	Ba	2ppm
Bi	5ppm	Ca	0.01%	Cd	1ppm	Co	2ppm
Cr	2ppm	Cu	2ppm	Fe	0.01%	Ga	10ppm
K	0.01%	La	1ppm	Li	1ppm	Mg	0.01%
Mn	2ppm	Mo	1ppm	Na	0.01%	Nb	5ppm
Ni	5ppm	Pb	2ppm	Sb	5ppm	Sc	2ppm
Sn	10ppm	Sr	1ppm	S	20ppm	Ta	5ppm
Te	10ppm	Ti	0.01%	V	1ppm	W	10ppm
Y	1ppm	Zn	2ppm	Zr	5ppm		

Over Range Cu, Pb, Zn Mo (>10,000ppm)
Reanalysis by Oregrade GA31 AAS finish

Intertek **ICPMS/OES** 45 elements

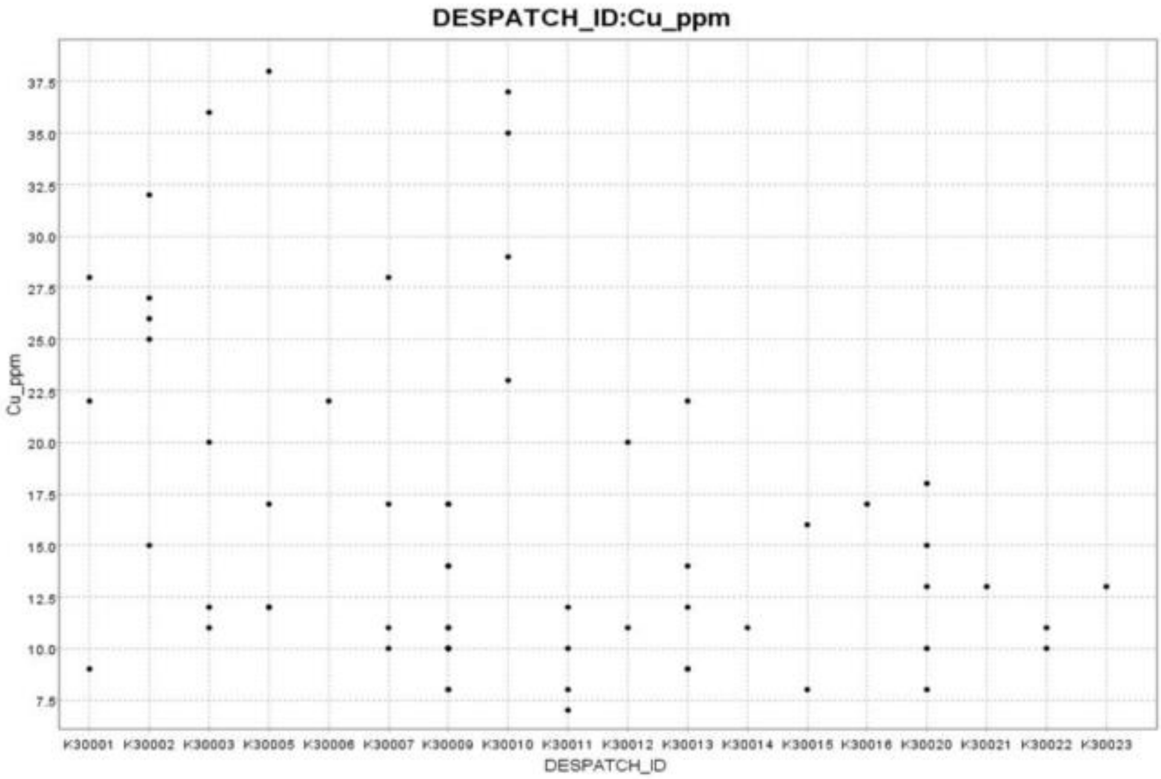
4A/OM10 – 4 acid combined ICP-OES & ICP-MS							
Ag	0.1 - 500ppm	Al	50 - 15.0%	As	1 - 20,000ppm	Ba	1 - 5,000ppm
Be	0.5 - 2,000ppm	Bi	0.05 - 2,000ppm	Ca	50 - 40.0%	Cd	0.5 - 2,000ppm
Co	0.1 - 10,000ppm	Cr	5 - 20,000ppm	Cs	0.1 -2,000ppm	Cu	1 - 50,000ppm
Fe	0.01% - 50.0%	Ga	0.1-2,000ppm	Ge	0.1-2,000ppm	Hf	0.1 - 2,000ppm
In	0.05 - 2,000ppm	K	20 -10.0%	Li	1 - 50,000ppm	Mg	20 - 40.0%
Mn	1 - 50,000ppm	Mo	0.1 - 10,000ppm	Na	20 - 10.0%	Nb	0.1 - 2,000ppm
Ni	1 - 50,000ppm	P	50 - 50,000ppm	Pb	1 - 10,000ppm	Rb	0.1 - 2,000ppm
Re	0.05 - 2,000ppm	S	50 - 15.0%	Sb	0.1 - 10,000ppm	Sc	1 - 5,000ppm
Se	1 - 10,000ppm	Sn	0.1 - 2,000ppm	Sr	0.5 - 10,000ppm	Te	0.1 - 2,000ppm
Ta	0.05 - 2,000ppm	Th	0.05 - 5,000ppm	Ti	5 - 20,000ppm	Tl	0.02 - 2,000ppm
U	0.05 - 10,000ppm	V	1 - 5,000ppm	W	0.1 - 2,000ppm	Zn	1 - 50,000ppm
Zr	0.5 - 2,000ppm						

Sucofindo Kuala Kencana
3-Acid digestion AAS finish (GAM007)

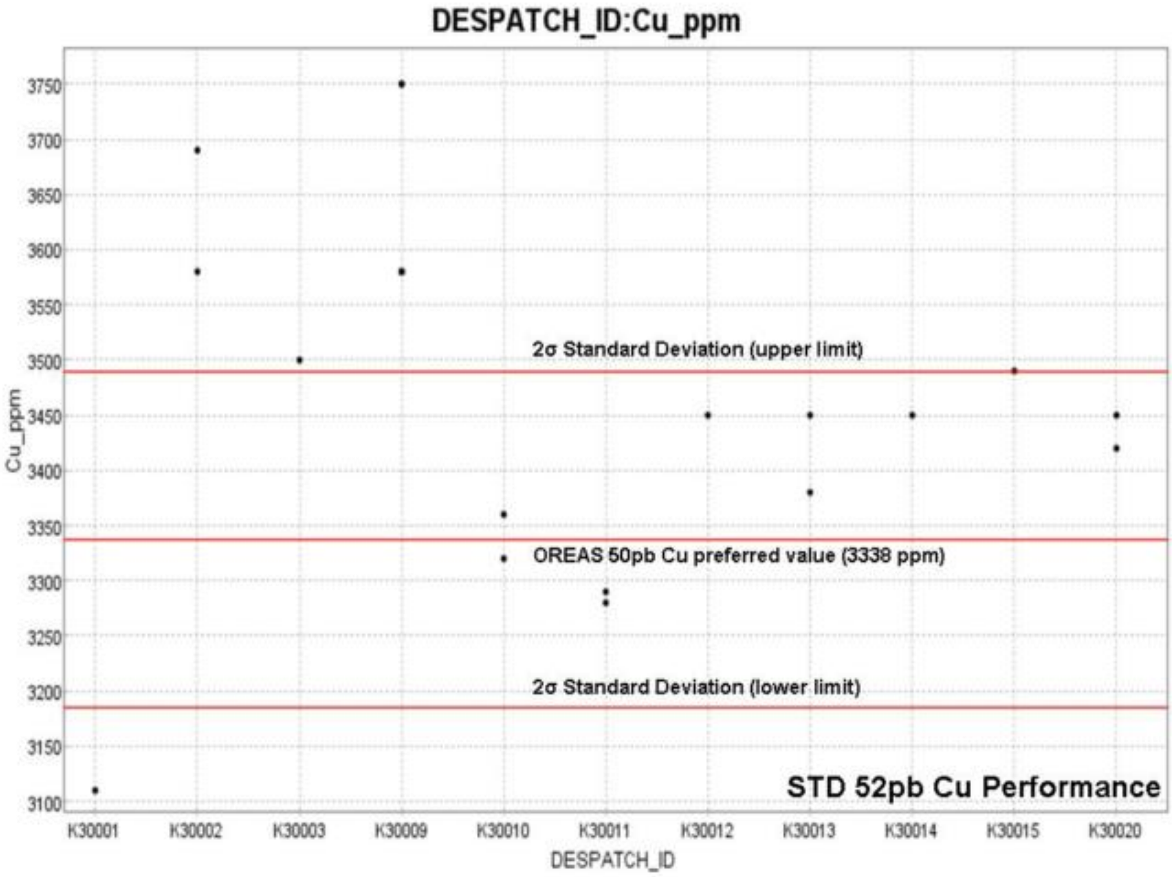
Ag	0.5 ppm
Cu	5 ppm
Mo	2 ppm
Pb	5 ppm
Zn	5 ppm

Over Range Cu, Pb, Zn Mo (>10,000ppm)
Reanalysis by Oregrade GOG001 AAS finish

Appendix 4 Oxiana Limited: Quality Control Data Assessment Diagrammes



Coarse Blank Cu Performance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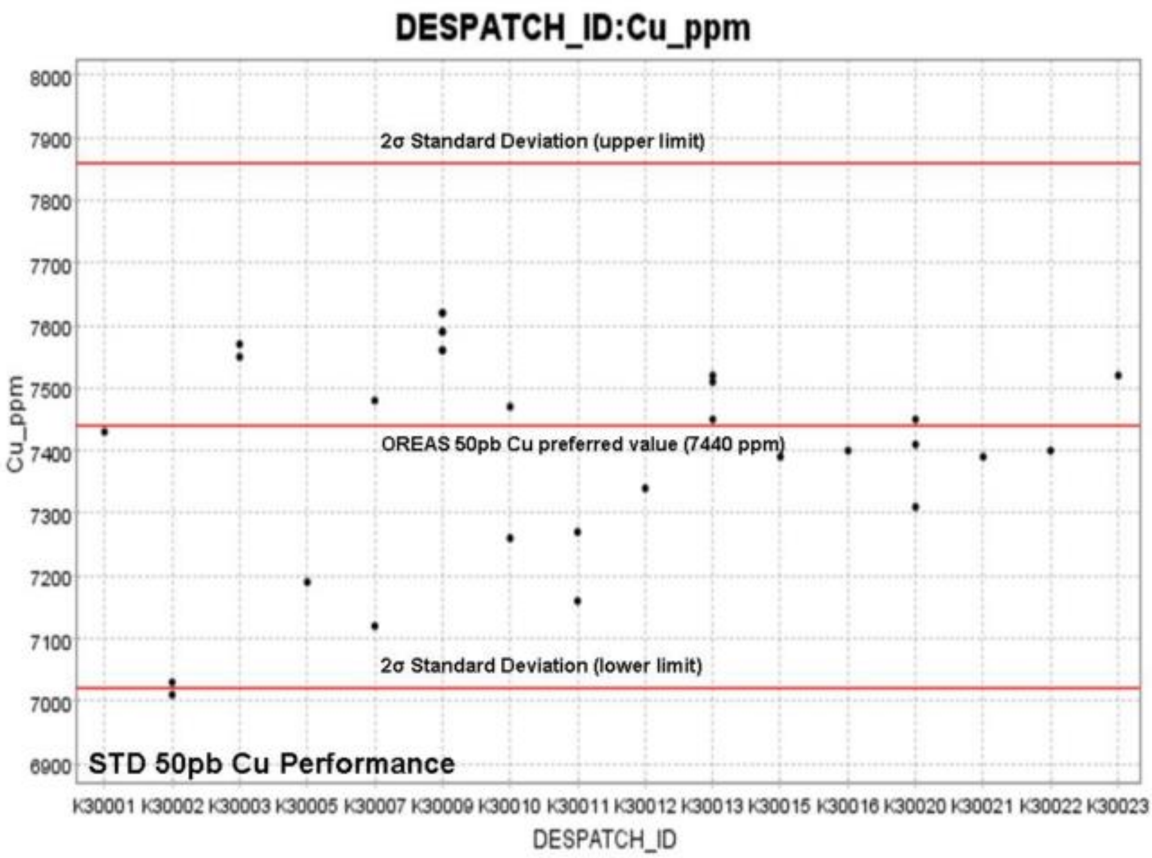
3150
3100
Cu_ppm
2σ Standard Deviation (upper limit)
OREAS 50pb Cu preferred value (3338 ppm)
2σ Standard Deviation (lower limit)
STD 52pb Cu Performance
K30001
K30002
K30003
K30009
K30010
K30011
K30012
K30013
K30014
K30015
K30020
DESPATCH_ID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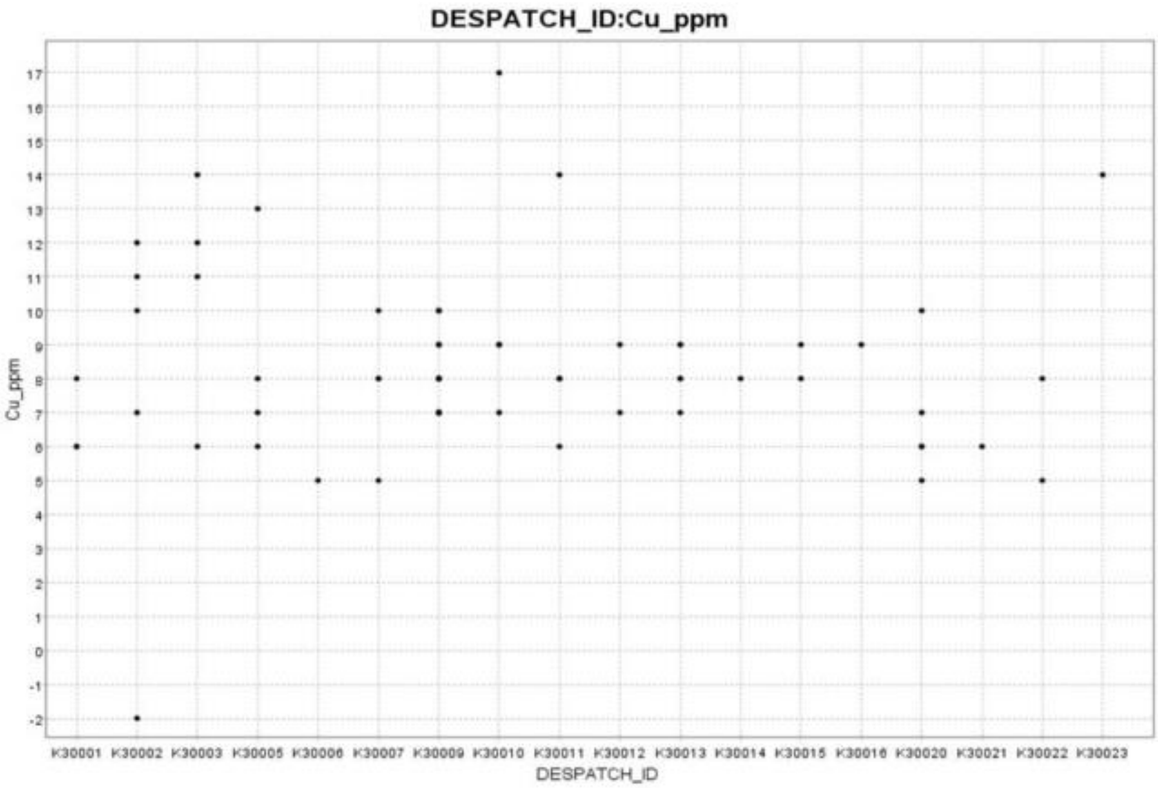


Pulp Blank Cu Performance

Appendix 5 Core photography logging presentation

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK029-01	a	10.0	16.9	6.9	0.5	crushed-gouged	qz-cl-py	N/R	Si-Py-Cv/Cc veins in shear	Quartz veins/veinlets cutting brecciated, and boudined country rock. Broken, but only minor clay. Serious recovery issues, only 20% in places, and likely washed away material.
		16.9	22.8	5.9	0.5	fractured-gouged				Quartz veins/veinlets cutting brecciated, and boudined country rock. Broken, but only minor clay. Recovery issues, 40-60% in places, and likely washed away material.
		22.8	28.4	5.6	0.3	crushed-gouged	qz-cl-py-cv	qz-py-cl		Quartz veins/veinlets cutting brecciated, and boudined country rock. Broken, but no clay. Rock is very siliceous. Recovery issues, 40-60% in places, and likely washed away material.
		28.4	33.0	4.6	1.0	crushed-fractured			Sheared Si-Py-Cv/Cc veins	Quartz veins/veinlets cutting brecciated, and boudined country rock. Post vein shearing. Broken rock, but minor clay. Rock is very siliceous. Noted covellite
		33.0	36.3	3.3	0.7				Si-Py-Cv/Cc veins in shear	Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain covellite. Broken rock, no clay. Rock is very siliceous.
		36.3	39.7	3.4	0.3					Sheared / brecciated, and boudined country rock, rare qtz veins. Broken rock, no clay. Rock is very siliceous.
		39.7	44.1	4.4	0.1					Sheared / brecciated, and boudined country rock, rare qtz veins. Broken rock, no clay. Rock is very siliceous.
		44.1	48.4	4.3	0.2				Sheared Si-Py-Cv/Cc veins	Sheared / brecciated, and boudined country rock, rare qtz veins. Broken rock, moderate clay. Rock is very siliceous.
		48.4	52.5	4.2	0.4					Sheared / brecciated, and boudined country rock, rare qtz veins. Broken rock, strong clay. Questionable recoveries. Obvious core loss from tumbling around in the core barrel
		52.5	56.1	3.6	0.5	fractured				Sheared / brecciated, and boudined country rock, large cm-scale qtz - py - cv vein. Broken rock over top 2m, moderate clay. Lower section more massive
		56.1	60.2	4.1	0.3					Sheared / brecciated, and boudined country rock, large, broken, cm-scale qtz - py - cv veins. Locally minor clay.
		60.2	64.2	4.0	0.2				Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock, minor broken cm-scale qtz - py - cv veins. Minor clay along shear. Massive core
		64.2	67.7	3.5	0.2					Sheared / brecciated, and boudined country rock, cv veinlets. Massive core. Notably less pyrite
		67.7	71.9	4.3	0.4					Sheared / brecciated, and boudined country rock, cv veinlets. Massive core. Mm to cm scale pyrite - covellite veins
		71.9	76.4	4.4	0.4					Sheared / brecciated, and boudined country rock, locally crushed, 10-15% clay, cv veinlets. Massive core. Mm to cm scale pyrite - covellite veins
		76.4	80.7	4.4	0.7					Sheared / brecciated, and boudined country rock, locally crushed, 10-15% clay, cv veinlets. Massive core. Mm to cm scale pyrite - covellite veins. Up to 6cm wide pyrite veins
		80.7	85.1	4.3	0.8					Shear fabric perpendicular to core axis, locally crushed, 10-15% clay, cv veinlets. Massive core. Mm to cm scale pyrite - covellite veins. 60cm wide massive pyrite vein
		85.1	89.4	4.3	0.8		qz-cl-pl-py-gp	qz-gp-py-cv-cp		Strong silicification with cv veins in top 2m interval. Shear fabric less evident. Massive core. Mm to cm scale pyrite - covellite veins. Minor milky white quartz veins
		89.4	93.6	4.2	0.7					Sheared / brecciated, and boudined country rock. Massive core. Mm to cm scale pyrite - covellite veins. Minor milky white quartz veins
		93.6	98.0	4.5	0.6	fractured-veined				Sheared / brecciated, and boudined country rock. Massive core. Mm to cm scale pyrite - covellite veins.
		98.0	102.1	4.1	0.4	fractured-gouged				Sheared / brecciated, and boudined country rock. Massive core. Mm to cm scale pyrite - covellite veins. Cm-scale shears with clay, 5%
		102.1	106.8	4.7	0.3					Sheared / brecciated, and boudined country rock. Massive core. Mm to cm scale pyrite - covellite veins. Cm-scale shears with clay, 5%

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK029-01	b	115.4	128.3	12.9	0.3	fractured-gouged	qz-cl-pl-py-gp	qz-cl-pl-py-gp	Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock. Massive core. Mm to cm scale pyrite - covellite veins. Cm-scale shears with clay, <5%. Rare milky white quartz veins
	c	154.2	160.1	5.9	0.3	fractured-gouged	qz-cl-pl-py-gp	qz-gp-py-cp-cv	Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock, silicified, minor cm-scale py-cv veins
		160.1	164.4	4.3	0.1	fractured-veined				Sheared / brecciated, and boudined country rock, silicified, minor cm-scale py-cv veins. Top 2m broken and contains 5% clay
		164.4	168.8	4.3	0.1	fractured				Sheared / brecciated, and boudined country rock, silicified, minor cm-scale py-cv veins.
		168.8	173.0	4.3	3.3				Si-Py-cp-Cv vein in shear	Sheared / brecciated, and boudined country rock, silicified, 3 meter wide quartz- py-cv-cpy vein
BK030-01	a	0.0	5.3	5.3	0.2	crushed-veined	qz-cl-py-hm-lm	qz-py-hm	Si-Py-Cv veins in shear	mm-scale hematite veinlets, most likely after copper-py
		5.3	8.6	3.4	0.3	crushed-blocky				Minor hematite veinlets, locally quartz-sulphide veins. Clay alteration, 5-10 % clay, crushed and broken rock
		8.6	11.9	3.3	0.4					Brecciated rock, minor quartz-sulphide veins, significant sulphide in matrix of breccia. Clay alteration, 5-10 % clay, crushed and broken rock
		11.9	16.3	4.4	0.6	crushed-gouged				Brecciated rock, minor quartz-sulphide veins, significant sulphide in matrix of breccia. Clay alteration, 5-10 % clay, crushed and broken rock to 15.2m
		16.3	19.5	3.3	0.1	blocky-veined				Brecciated rock, minor quartz-sulphide veins, significant sulphide in matrix of breccia. Massive core, difficult to identify copper sulphide species
		19.5	25.1	5.6	0.2					Brecciated rock, minor mm-scale quartz-sulphide veins (1-2/meter), significant sulphide in matrix of breccia. Massive core, difficult to identify copper sulphide species
		25.1	28.9	3.8	0.3	blocky				Brecciated rock, minor mm to cm-scale quartz-sulphide veins (1-2/meter), significant sulphide in matrix of breccia. Massive core, difficult to identify copper sulphide species
	b	46.4	57.1	10.7	0.1	fractured-blocky	qz-cl-py	qz-py-cl	Si-Py-Cv veins in shear	Brecciated rock, minor mm to cm-scale quartz-sulphide veins (1-2/meter), significant sulphide in matrix of breccia. Broken core, difficult to identify copper sulphide species
		57.1	60.6	3.5	0.2	fractured				Brecciated rock, minor mm to cm-scale quartz-sulphide veins (1-2/meter), significant sulphide in matrix of breccia. Broken core to crushed, 5% clay, difficult to identify copper sulphide species
		60.6	67.4	6.8	0.2					Brecciated rock, minor mm to cm-scale quartz-sulphide veins (1-2/meter), significant sulphide in matrix of breccia. Broken core to crushed, cpy mineralization

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK031-01	a	5.2	12.8	7.6	0.1	fractured-veined	N/R	N/R	Sheared Si-Py-Cv/Cc veins	Brecciated quartz-sulphide vein (15 meter zone), was significant sulphide in matrix of breccia, now comprising intense FeOx stain. Broken core to crushed
		12.8	20.3	7.5	0.4	crushed-blocky	qz-cl-ka-py-cc	qz-py-cl-cc		Estimated 20% Clay. Probably some loss of copper mineralization due to washing. Poor recoveries
		20.3	31.2	10.9	0.5					Estimated 30% Clay. Probably some loss of copper mineralization due to washing. Poor recoveries, rubble and pebbles
		31.2	36.0	4.8	0.7	fractured				Estimated 5% Clay. Probably some loss of copper mineralization due to washing. Poor recoveries over first 2 meters. Sulphide vein?? Sub parallel to core axis
		36.0	42.3	6.3	0.8	crushed-blocky				Estimated 30% Clay. Probably some loss of copper mineralization due to washing. Poor recoveries from start to end. Core has been tumbling around in the barrel, rounded.
	b	68.5	74.5	6.0	0.3	blocky-fractured	qz-py-cl-cv-an-gp	qz-gp-an-py-cv-cl-ka	Si-Py-Cv veins in shear	Well developed shear fabric perpendicular to core axis. Significant pyrite encompasses boudined fragments? Will need to look at the core to confirm cv-dominant and no cpy
		74.5	80.4	5.9	0.2	fractured				Well developed shear fabric perpendicular to core axis. Minor clay. Post shear brecciation and quartz-sulphide veins 2-3/meter
		80.4	86.2	5.9	0.3					Well developed shear fabric perpendicular to core axis. Minor clay. Quartz-sulphide veins 2-3/meter
		86.2	92.4	6.1	0.1					Coarse and well developed shear fabric ends at 89.45m, becoming finer grained and less obvious, more massive downhole. Minor clay. Quartz-sulphide veins 1-2/meter
		92.4	98.5	6.2	0.2	blocky-fractured				Well developed micro-shear fabric, more massive downhole . Quartz-sulphide veins 1-2/meter
		98.5	104.5	6.0	0.3	blocky-veined				Well developed micro-shear fabric, qtz in stockwork vein system, 5-8vn/m. 10-30cm wide massive py vein
		104.5	110.5	6.1	0.2					Well developed micro-shear fabric, qtz stockwork veining, 5-8vn/m, up to 1.5m in width but typically cm-scale.
BK033-01	a	19.0	23.4	4.4	0.5	fractured-veined	qz-ch-cl-hb-py	ca-qz-py	Si-Py-Cv veins in shear	Shear fabric less obvious. Dark spotted mineral. Locally vuggy. Appears to have drilled parallel to a quartz-py-cv vein. Vein density low, 1-2/meter
		23.4	27.7	4.3	0.5	fractured-brecciated				Shear fabric less obvious. Dark spotted mineral. Locally vuggy. Appears to have drilled parallel to a quartz-py-cv vein while other veins are almost perpendicular to CA. . Vein density low, 1-2/meter
		27.7	31.9	4.3	0.4	fractured-veined				Shear fabric less obvious. Dark spotted mineral. Locally vuggy. Appears to have drilled parallel to a quartz-py-cv vein, while other veins are almost perpendicular to CA. Vein density low, 1-2/meter
		31.9	36.2	4.3	0.3					Shear fabric less obvious. Dark spotted mineral. Locally vuggy. Veins are steep to CA. Vein density low, 1-2/meter
		36.2	40.6	4.4	0.7					Shear fabric less obvious. Dark spotted mineral. Locally vuggy. Veins are steep to CA. Vein density low, 1-2/meter
		40.6	45.2	4.6	0.3					Sheared / brecciated, and boudined country rock, anastomosing qtz veins at 45 degrees to core axis, locally parallel to CA.
		45.2	49.6	4.3	0.4	fractured-gouged	ch-qz-cl-py-ca	qz-ch-py-cv-hm		Sheared / brecciated, and boudined country rock, massive -pyrite mineralization, and an anastomosing qtz vein parallel to CA. The shear fabric is perpendicular to the CA. Dark sulphide mineral, unsure, not sphalerite (likely magnetite)
		49.6	54.0	4.5	0.2	fractured-veined				Sheared / brecciated, and boudined country rock, fabric perpendicular to the CA. Quartz-pyrite-cv vein density is 1/meter. Less veining = lower grades
		54.0	58.4	4.4	0.3					Sheared / brecciated, and boudined country rock, fabric perpendicular to the CA. Quartz-pyrite-cv vein density is 2-3/meter. Dark sulphide mineral, unsure, not sphalerite (likely magnetite)
		58.4	62.9	4.5	0.3					Sheared / brecciated, and boudined country rock, fabric perpendicular to the CA. Quartz-pyrite-cv vein density is 3-4/meter. Dark sulphide mineral, unsure, not sphalerite (likely magnetite). Contact at 62.2m depth with a medium grained diorite (?)
		62.9	68.9	6.0	0.0					Diorite (?), cut by stockwork veins, absent of copper sulphide species

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK034-01	a	0.0	7.1	7.1	0.5	fractured	qz-cl-gp-py-cc	N/R	Si-Py-Cv veins in breccia	Breccia zone. Minor zone of clay, 10cm wide, the remaining core is massive. Strong FeOx in the top 1 meter. Mm-scale quartz-pyrite-covellite veins 1-2/meter
		7.1	10.4	3.3	0.6					Breccia zone. Minor zone of clay, 10cm wide, the remaining core is massive. CM-scale quartz-pyrite-covellite veins 1-2/meter
		10.4	16.1	5.7	0.5	crushed-fractured				Intense silicification, textural destruction. Vein and fracture hosted mineralization. Localized clay, but not strong. Crushed and broken 50%, so possible loss of mineralization. Mm-scale quartz-pyrite-covellite veins 1-2/meter
		16.1	20.0	4.0	0.4	fractured				Breccia zone. Crushed and broken core. Vein and fracture hosted mineralization, possibly loss of grade due to washing out of sulphides. Localized clay, but not strong. Mm-scale quartz-pyrite-covellite veins 1-2/meter
		20.0	24.4	4.4	0.5		qz-cl-py-cp-cv	qz-py	Si-Py-Cv veins in shear	Intense silicification, textural destruction. Vein and fracture hosted mineralization, and veins anastomosing sub-parallel to CA.
		24.4	28.9	4.5	0.5	fractured-gouged				Sheared / brecciated, and boudined country rock. Vein and fracture hosted mineralization, one cm-scale pyrite-quartz-cv? Veins/meter.
		28.9	33.4	4.5	0.7					Sheared / brecciated, and boudined country rock. Vein and fracture hosted mineralization, 1-2 mm to cm-scale pyrite-quartz-cv? veins/meter.
		33.4	37.7	4.3	0.5	fractured-blocky				Sheared / brecciated, and boudined country rock. Vein and fracture hosted mineralization, 1-2 mm to cm-scale pyrite-quartz-cv? veins/meter. A 10cm wide breccia cutting shear fabric
		37.7	44.3	6.7	0.8	fractured-banded				Narrow 1m wide dyke, followed by vein and fracture mineralization in sheared / brecciated, and boudined country rock. Brittle fracturing. Vuggy texture. Rubble zone about 1m
		44.3	49.7	5.4	1.6				Sheared Si-Py-Cv/cc veins	Sheared / brecciated and boudined country rock, reactivated, strongly sheared and broken. Remnant quartz-sulphide veins. Strong clay locally, possible 10-20% of the interval. Dark black mineral in veins, suspected chalcocite
		49.7	54.2	4.6	0.6	gouged			Sheared Si-Py-Cv veins	Sheared / brecciated and boudined country rock, reactivated, strongly sheared and broken. Remnant quartz-sulphide veins. Strong clay locally, possible 10% of the interval. Dark black mineral in veins, suspected chalcocite
		54.2	58.7	4.5	0.9					Sheared / brecciated and boudined country rock, reactivated, strongly sheared and broken. Remnant quartz-sulphide veins. Strong clay locally, possible 10% of the interval. Dark black mineral in veins, suspected chalcocite
		58.7	63.2	4.5	0.4					Sheared / brecciated and boudined country rock, reactivated, strongly sheared and broken. Remnant quartz-sulphide veins. Strong clay locally, possible 10% of the interval. Dark black mineral in veins, suspected chalcocite. Large sulphide-quartz vein marks end of interval
	b	67.4	88.7	21.3	0.4	fractured	qz-cl-py-cp-cv	qz-py	Si-Py-Cv veins in shear	Sheared / brecciated and boudined country rock, coarse fragments. Strongly pyritic. Minor quartz-sulphide veins
		88.7	94.7	6.0	0.6					Sheared / brecciated and boudined country rock, coarse fragments. Strongly pyritic. Minor quartz-sulphide veins

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK034-01	c	130.7	136.7	6.0	0.6	fractured	qz-cl-py-cp	qz-py-cp	Si-Py-Cp veins in shear	Sheared / brecciated, and boudined country rock, 2-5 qtz veins / meter that contain chalcopyrite. Massive core. Rare chalcopyrite veins. Fragments look wispy, or almost "juvenile" in texture
		136.7	142.7	6.0	1.2	blocky-fractured		py-qz-cp		Sheared / brecciated, and boudined country rock, 2-5 qtz veins / meter that contain chalcopyrite. Massive core. Rare chalcopyrite veins. Fragments look wispy, or almost "juvenile" in texture. There is a 1.5m wide vein near start of interval
		142.7	148.8	6.1	0.2	fractured				Sheared / brecciated, and boudined country rock, 2-3 qtz veins / meter that contain chalcopyrite. Massive core. Rare chalcopyrite veins. Fragments look wispy, or almost "juvenile" in texture. Gradational contact with finer grained unit at end of box
	d	171.8	177.6	5.8	0.6	gouged	cl-qz-py-cp	qz-py-cp	Sheared Si-Py-Cp veins	Finer grained rock, that is strongly broken and sheared. Large cm-scale quartz-pyrite-sulphide veins, up to 50cm in width.
		177.6	183.9	6.3	2.5	fractured	qz-cl-py-cp	py-qz-cp	Si-Py-Cp veins in shear	Finer grained rock, that is strongly broken and sheared. Large cm-scale quartz-pyrite-sulphide veins, up to 20cm in width. Vein density 3-6 veins per meter.
		183.9	190.4	6.5	2.4	fractured	qz-ch-cl-py	py-qz-cp-ca		This entire interval could be classified as a large pyrite-quartz-chalcopyrite vein, almost 6m in width.
		190.4	196.6	6.3	0.6	fractured-blocky				Sheared / brecciated, and boudined country rock, that is cut by 3-5cm wide quartz-pyrite-sulphide veins. Vein density 1-3 per meter.
		196.6	204.1	7.5	0.4	fractured-blocky				Sheared / brecciated, and boudined country rock, much finer grained than previous interval. Cut by 3-5cm wide quartz-pyrite-sulphide veins. Vein density 1-3 per meter.
		204.1	211.6	7.5	0.6	fractured-veined				Sheared / brecciated country rock, finer grained. Cut by 1-2cm wide quartz-pyrite-sulphide veins. Locally, one vein is 30cm in width. Vein density 1-3 per meter. Decreasing quartz
		211.6	219.0	7.4	0.7	fractured-gouged			Cp veins in shear	Sheared / brecciated country rock, finer grained. Cut by 1-2cm wide quartz-pyrite-sulphide veins. Locally, one vein is 30cm in width. Vein density 1-3 per meter.
		219.0	226.5	7.5	0.9	blocky-veined				Sheared country rock, finer grained. Locally cut by 3-5cm wide chalcopyrite veins. Vein density 1-2 per meter. Lacking quartz
		226.5	234.0	7.6	0.6	fractured				Sheared country rock, finer grained. Locally cut by 3-5cm wide chalcopyrite veins. Vein density 1-2 per meter. Lacking quartz

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK035-01	a	0.0	6.7	6.7	0.0	crushed-blocky	cl-qz-hm-lm	N/R	Brecciated and oxidized	Remnant quartz veins with strong FeOx. Not assayed, but should be checked
		6.7	14.6	7.9	0.0					Remnant quartz veins with strong FeOx. Not assayed, but should be checked
		14.6	23.4	8.8	0.0					Remnant quartz veins with strong FeOx. Not assayed, but should be checked
		23.4	35.9	12.5	0.7		qz-cl-ch-py	qz-py-cp	Si-Py-cp veins in shear	Upper half of this interval is strongly oxidized. Lower half is 40-50% clay. Core has been flushed out. Extremely poor recoveries. Blackish mineral, possibly cc
		35.9	40.3	4.4	0.2	fractured				Textural destruction. Rock is cut by mm-scale quartz-sulphide veins and hairline veinlets (unknown black mineral). 10-20% clay, crushed and broken core.
		40.3	44.9	4.6	0.2	fractured-veined				Textural destruction. Rock is cut by mm-scale quartz-sulphide veins and hairline veinlets (unknown black mineral). <5% clay. Blocky core
		44.9	50.3	5.4	0.2	fractured-blocky				Textural destruction. Rock is cut by mm-scale quartz-sulphide veins and hairline veinlets (unknown black mineral). Minor clay. Blocky core
		50.3	59.4	9.1	0.5	fractured-veined				Textural destruction. Rock is cut by cm-scale quartz-sulphide veins and hairline veinlets (unknown black mineral). Minor clay. Blocky core
	b	70.2	76.0	5.8	0.4	fractured-veined	qz-cl-ch-py	qz-py-cp	Cp veins in shear	Breccia. Stockwork veining <5 vol %. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.
		76.0	93.7	17.7	0.5					Breccia. Stockwork veining <5 vol %. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.
		93.7	99.9	6.3	0.4					Breccia. Stockwork veining <10 vol %. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.
		99.9	111.9	12.0	0.5					Breccia. Stockwork veining <10 vol %. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.
		111.9	117.6	5.6	0.6					Breccia. Stockwork veining <10 vol %. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.
		117.6	135.2	17.6	0.4					Breccia. Weaker Stockwork veining. At least two generations of quartz veins, and a silica-flood event. Massive pyrite veins. Chalcopyrite appears late, cross-cuts quartz and pyrite veins.

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK036-01	a	0.0	5.8	5.8	0.2	crushed	cl-qz-pl-py-cc	py-qz-cc	Si-Py-Cc veins in shear	Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite. Broken rock, very siliceous. Clay alteration, less than 10%
		5.8	9.9	4.1	0.4	fractured				Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%
		9.9	13.6	3.7	0.3					Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%
		13.6	16.8	3.3	0.5					Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 2%. Core is locally vuggy
		16.8	21.4	4.6	0.5	crushed-veined				Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%. Core is locally vuggy
		21.4	25.2	3.9	0.9	fractured-veined			Si-Py-cp veins in shear	Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. Locally chalcopyrite veins. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%.
		25.2	30.6	5.4	0.5					Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. Locally chalcopyrite veins. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%.
		30.6	36.5	5.9	0.2	crushed-fractured				Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. Locally chalcopyrite veins. 1-3 pyrite veins / meter. Broken rock, very siliceous. Clay alteration, less than 5%. Contact with barren diorite dyke at end of interval
		36.5	44.0	7.6	0.5	fractured	pl-cl-o	N/R	Si-Py-Cv/Cc veins in shear	Barren dyke to 40.9m. Followed downhole by rock with texture completely destroyed.
		44.0	49.2	5.2	0.4	crushed-fractured	cl-qz-pl-py-o	qz-py-cp		Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain chalcocite / chalcopyrite. Locally chalcopyrite veins. 1-3 pyrite veins / meter. 5% Clay
		49.2	53.9	4.7	0.3	fractured				Sheared / brecciated, and boudined country rock, 1-2 qtz pyrite / meter. Locally brecciated with "milled matrix". Clay less than 5%. Sheared, broken, sulphide in matrix
		53.9	58.9	5.0	0.3					Sheared / brecciated, and boudined country rock, 1-2 sulphide veins / meter that contain chalcocite / chalcopyrite. 10% Clay

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK038-01	a	0.0	4.2	4.2	0.0	unconsolidated	cl-hm-lm-qz	N/R	Nil	Should analyze Fe-rich material, but likely barren
		4.2	10.1	5.9	0.0					Should analyze Fe-rich material, but likely barren
	b	25.0	31.1	6.1	0.0	blocky-fractured	qz-Kf-pl-ca-bi-cl	ca	Nil	Core loss due to spinning in the barrel. Barren Dyke
	c	67.6	73.1	5.5	0.9	gouged-blocky	qz-cl-ch-py-hm	qz-py-cl-hm-cp-cv	Sheared Si-Py-cp veins	Sheared / brecciated texture, 1-2 qtz-chalcopyrite-pyrite veins / meter. Large 30cm chalcopyrite vein. Broken rock, crushed rock. Clay-phyllic alteration.
		73.1	77.1	4.1	0.4	fractured-blocky			Si-Py-cp-cv veins in shear	Sheared / brecciated texture, 1-2 qtz-chalcopyrite-pyrite veins / meter. Broken rock, crushed rock. Clay-phyllic alteration.
		77.1	83.1	6.0	0.3	gouged-veined				Sheared / brecciated texture, 1-2 qtz-chalcopyrite-pyrite veins / meter. Broken rock, crushed rock. Clay-phyllic alteration.
		83.1	89.0	5.9	0.2					Sheared / brecciated texture, rare chalcopyrite-pyrite veins. Clay-phyllic alteration. lacking qtz-sulphide veins.
		89.0	94.9	5.8	0.4	gouged				Sheared / brecciated texture, rare chalcopyrite-pyrite veins. Clay-phyllic alteration. lacking qtz-sulphide veins. 5-10% Clay in crushed zones.
		94.9	101.1	6.2	0.4					Sheared / brecciated texture, rare chalcopyrite-pyrite veins. Clay-phyllic alteration. lacking qtz-sulphide veins. 5-10% Clay in crushed zones.
		101.1	107.2	6.1	0.4					Sheared / brecciated texture, rare chalcopyrite-pyrite veins. Clay-phyllic alteration. lacking qtz-sulphide veins. 5% Clay in crushed zones.
		107.2	113.1	5.9	0.9	gouged-veined			Si-Py-cv veins in shear	Sheared / brecciated texture, 4-6 quartz-pyrite-cv veins per meter. Clay-phyllic alteration. 5% Clay in crushed zones. increasing pyrite
		113.1	118.8	5.7	1.2	gouged				Sheared / brecciated texture, 2-4 quartz-pyrite-cv veins per meter, up to 10cm in width. Clay-phyllic alteration. 5% Clay in crushed zones. increasing pyrite
		118.8	124.9	6.1	0.8	fractured-veined				Sheared / brecciated texture, 2-4 quartz-pyrite-cv veins per meter, up to 10cm in width. Clay-phyllic alteration. 5% Clay in crushed zones. increasing pyrite
		124.9	130.9	6.1	1.0		cl-qz-py-Kf-cv	qz-py-cl-cv-gp		Sheared / brecciated texture, 2-4 quartz-pyrite-cv veins per meter in the top 3m interval. Below 127m is a distinct decrease in pyrite and lack of veins.
		130.9	136.9	5.9	0.4					Sheared / brecciated texture, 1 quartz-pyrite-cv veins per meter, decrease in pyrite and lack of veins.
	d	154.5	160.3	5.9	0.4	fractured	qz-cl-py-Kf-cp-ca	qz-cl-py-cp-cv-gp	Si-Py-cp veins in shear	Note the qtz vein with dark mineral (wolframite?), tungsten values up to 540ppm
	e	178.4	195.9	17.5	0.2	fractured-veined	qz-cl-py-Kf-cp-ca	qz-cl-py-cp-cv-gp	Si-Py-cp veins in shear	Sheared / brecciated texture. 3-5 quartz-pyrite-chalcopyrite veins per meter, up to 30cm in width. Clay-phyllic alteration. Locally 5% Clay in crushed zones.
		195.9	202.1	6.3	0.5	gouged				
		202.1	210.0	7.8	0.3	blocky-veined				

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK044-01	a	0.0	3.3	3.3	0.7	fractured	qz-Kf-cl-py	py-qz-cv-cp	Si-Py-Cv veins in shear	Fresh sulphides from start of hole, collared in outcrop. Dark colored mafic rock, cut by cm-scale quartz-cv-pyrite veins. Vein density 2/meter.
		3.3	6.6	3.3	1.4	fractured-blocky				Dark colored mafic rock, cut by cm-scale quartz-cv-pyrite veins. Vein density 2/meter, up to 7cm in width. Crack and seal type texture. Rock is strongly brecciated after 7.9m
		6.6	10.3	3.7	0.7	fractured				
		10.3	13.8	3.5	1.2					Brecciated, abundant covellite on fractures and in veins. Notable lack of milky white quartz veins
		13.8	17.3	3.6	1.9					Brecciated, abundant quartz-covellite-pyrite veins. Thick cm-scale pyrite veins
		17.3	20.9	3.6	0.8					Brecciated, banded quartz-covellite-pyrite veins.
		20.9	24.4	3.5	0.1	fractured-blocky				Brecciated and with a shear fabric, rare quartz - covellite veins.
	b	35.2	39.6	4.4	0.2	fractured	qz-Kf-pl-cl-py	py-qz-cv-cp-cl	Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock, 1-2 qtz thick veins / meter that contain covellite and minor chalcopyrite.
		39.6	43.8	4.2	0.2	fractured-veined				Sheared / brecciated, and boudined country rock, 1-2 qtz thick veins / meter that contain covellite and minor chalcopyrite.
		43.8	48.2	4.5	0.4	blocky-veined				Sheared / brecciated, and boudined country rock, 1-2 qtz thick veins / meter that contain covellite and minor chalcopyrite.
		48.2	52.7	4.5	0.2	fractured-veined	qz-Kf-cl-py-cv	py-qz-cv-cp		
		52.7	57.1	4.4	0.3	fractured				
		57.1	61.5	4.5	0.3	blocky-veined	qz-Kf-py-cl	py-qz-cv-cl-cp		Sheared / brecciated, and boudined country rock, Cross cut by minor irregular milky quartz-sulphide veins. Bleached. Notably more veining and increased grade confirms copper-bearing veins
		61.5	66.1	4.6	0.5	blocky-fractured				
		66.1	70.5	4.4	0.4	fractured-brecciated				
		70.5	75.4	4.9	0.0	crushed-brecciated			Nil	Veins are absent
	c	149.5	155.8	6.4	0.3	fractured	qz-cl-ch-py	py-qz-cp	Cp veins in shear	Shear/breccia zone, sulphides in veins and matrix, weak clay/phyllic overprint
		155.8	161.6	5.8	0.4	fractured-veined				Shear/breccia zone in contact with a different breccia-type at 159m? Two types of veins, quartz-pyrite veins and late chalcopyrite veins
		161.6	173.6	12.1	0.3	fractured	qz-ch-cl-py			Breccia zone. Two types of veins, quartz-pyrite veins and late chalcopyrite veins
		173.6	179.4	5.8	0.5	fractured-veined				
		179.4	185.2	5.8	0.9					Breccia zone. Two types of veins, quartz-pyrite veins and late chalcopyrite veins (up to 20cm thick)
		185.2	191.1	5.9	0.5					Breccia zone. Two types of veins, quartz-pyrite veins and late chalcopyrite veins

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK044-02	a	2.6	6.8	4.2	0.5	fractured	qz-pl-py-cl	py-qz-cv	Si-Py-Cv veins in shear	Fresh sulphides from start of hole, collared in outcrop. Dark colored mafic rock, cut by cm-scale quartz-cv-pyrite veins. Vein density 2/meter.
		6.8	10.2	3.4	1.2					In the field, this appears to be a basalt, pillow textures. Clearly it is brecciated and cut by 2-4 quartz-py veins with cv / meter. No clay, brittle fracturing
		10.2	12.7	2.6	2.7					Brecciated. It is cut by abundant quartz-py veins with cv. No clay, competent rock
		12.7	16.9	4.2	1.6	fractured-veined				
		16.9	20.4	3.5	2.6					Brecciated. It is cut by abundant quartz-py veins with cv. No clay, competent rock and is strongly silicified
		20.4	23.8	3.4	1.3	fractured				
		23.8	27.6	3.9	0.2	fractured-veined				Brecciated. It is cut by minor quartz-py veins with cv. No clay, competent rock and is strongly silicified
		27.6	31.2	3.6	0.1					Brecciated. It is cut by rare quartz-py veins with cv. No clay, competent rock and is strongly silicified
	b	39.5	43.6	4.1	0.5	fractured-veined	qz-cl-py-cv	qz-py	Si-Py-Cv veins in shear	Very large quartz-sulphide vein, probably 3-4m in width. Might represent a silica ledge at surface. No clay, but crushed zones
		43.6	49.4	5.8	0.3	fractured-blocky				Brecciated / shear zone with minor quartz-py veins with cv. No clay, but crushed zones
		49.4	53.6	4.3	0.7					Brecciated / shear zone with quartz-py veins with cv. The zone is bleached, sericite or clay alteration
		53.6	57.8	4.2	1.1					Brecciated / shear zone with quartz-py veins containing abundant cv.
		57.8	62.2	4.4	0.3					Brecciated / shear zone with minor quartz-py veins with cv.
	c	195.9	201.7	5.8	0.4	fractured	qz-cl-py	py-qz-cp	Si-py-cp veins in shear	Prominent shear fabric and locally micro-breccias. First generation of quartz-py veins that are not carrying copper, and these dominate the veining (up to 20 vol %). Later stage quartz-chalcopyrite-pyrite veins cutting the older veins, 1-2 veins / meter.
		201.7	207.6	5.9	1.3	fractured-veined				
		207.6	213.2	5.6	0.3	fractured				
		213.2	218.7	5.5	0.5	blocky				
		218.7	224.2	5.5	0.9	crushed				
		224.2	230.0	5.8	0.5	fractured-veined		qz-py-cp		
BK045-01	a	0.0	6.1	6.1	1.3	fractured-blocky	qz-cl-py-cv	py-qz	Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock, 1-2 qtz veins / meter that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous.
		6.1	10.6	4.5	2.4	fractured				Sheared / brecciated, and boudined country rock, network of qtz veins that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous.
		10.6	14.9	4.4	2.8	fractured-gouged			Sheared Si-Py-Cv veins	Sheared / brecciated, and boudined country rock, network of qtz veins that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous.
		14.9	18.9	4.0	4.7	fractured-blocky			Si-Py-Cv veins in shear	Sheared / brecciated, and boudined country rock, network of qtz veins that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous.
		18.9	23.2	4.3	1.5	fractured				
	b	42.4	46.8	4.4	0.5	gouged-blocky	qz-cl-py	py-qz	Sheared Si-Py-Cv veins	Shear/breccia containing covellite mineralization. Broken and clay matrix in lower section, probably 40%
		46.8	51.8	5.0	0.4	crushed-blocky				Shear/breccia containing covellite mineralization. Broken and clay matrix in lower section, probably 40%

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK046-01	a	0.0	7.2	7.2	1.0	unconsolidated	qz-cl-pl-py-cp-cv	py-qz-cp-cv	cc	Oxidized and weather rock to 11m depth, contains cc.
		7.2	10.7	3.5	0.8	fractured				Oxidized and weather rock to 11m depth, contains cc.
	b	14.2	17.9	3.7	0.5	unconsolidated-veined	qz-cl-pl-py-cp-cv	py-qz-cp-cv	Si-Py-Cv/Cc veins in shear	Spherical features / weathering. Sulphide in matrix. Quartz-pyrite-cv veins. Older pyrite veins and infill. Second part of this interval contains abundant clay/soil, perhaps 30%. Possible drilled through a slump block and back into paleo soil.
		17.9	22.0	4.2	0.1					Spherical features / weathering. Sulphide in matrix. Quartz-pyrite-cv veins. Older pyrite veins and infill. Top part of this interval contains abundant clay/soil, perhaps 30%. Possible drilled through a slump block and back into paleo soil.
		22.0	25.3	3.3	0.4	fractured-veined				Sheared / brecciated country rock, network of qtz veins (3-4vn/meter) that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous.
		25.3	29.9	4.6	0.4	unconsolidated-veined				Start of zone is brecciated with qtz-sulphide veins, which is acid leached and vuggy. Followed by 1.5m of soil (?), perhaps slump material? Brecciated with qtz-sulphide veins over the last meter.
		29.9	51.6	21.7	0.4	fractured-veined				Sheared / brecciated country rock, network of qtz veins (2vn/meter) that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous. Veins are vuggy
		51.6	56.0	4.4	0.9	blocky-veined				
		56.0	64.6	8.6	0.5	fractured-veined	qz-cl-py-cp-cv	qz-py-cp-cv	Si-Py-cp-cv veins in shear	Sheared / brecciated country rock, network of qtz veins (2vn/meter) that contain covellite / chalcocite. Broken rock, no clay. Rock is very siliceous. Veins are vuggy
		64.6	69.1	4.5	0.5	blocky-veined				
		69.1	77.9	8.9	0.8	fractured-veined		py-qz-cp-cv		
		77.9	86.8	8.9	0.6	blocky-veined			Si-Py-cp veins in shear	Shear / breccia hosted mineralization, smaller clasts. Cut by minor quartz - sulphide veins. Massive core. Boudined clasts
		86.8	91.2	4.4	0.5	fractured-veined				Shear / breccia hosted mineralization, large clasts. Cut by minor quartz - sulphide veins and cm-scale cpy veins. Massive core. Boudined clasts
	c	104.2	108.5	4.3	1.5	fractured	qz-cl-py-cp-cv	py-qz-cp-cv	Si-Py-cp veins in shear	Shear / breccia hosted mineralization, large clasts. Cut by minor quartz - sulphide veins and 30cm wide cpy vein. Massive core. Boudined clasts
	d	143.2	147.4	4.2	0.5	fractured-gouged	qz-cl-py-cp-cv-ga	py-qz-cp-cv	cp veins in shear	Breccia/shear hosted mineralization. Cut by quartz-sulphide veins and massive cpy veins. Minor clay in post mineral shears
		147.4	163.6	16.2	0.8	fractured-veined				Breccia/shear hosted mineralization. Cut by quartz-sulphide veins and massive cpy veins.
		163.6	169.4	5.8	0.6	fractured				
		169.4	175.4	6.0	0.4					Breccia/shear hosted mineralization. Cut by quartz-sulphide veins and massive cpy veins. 10-15% clay in post mineral shears
		175.4	183.6	8.2	0.5					Breccia/shear hosted mineralization. Cut by quartz-sulphide veins and massive cpy veins.
BK047-01	a	36.7	41.1	4.4	0.2	fractured	qz-ch-cl-py-sm	qz-py-ch	cp veins in shear	Shear/breccia hosted mineralization. Cpy as sulphide veins and with minor quartz. Massive core, with minor crushed zones
		41.1	49.5	8.4	0.7	fractured-veined	qz-ch-cl-py-cp	py-cp-qz-ch		

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK048-01	a	0.0	4.5	4.5	0.2	fractured-veined	qz-cl-py	qz-py-gp-cv	Si-Py-Cv veins in shear	Breccia/shear zone. Minor quartz veins. Silica flooding with covellite.
		4.5	7.9	3.4	1.0					Breccia/shear zone. Quartz - cv veins broken and probably lost ore. Covellite-dominated ore. <5% Clay
		7.9	11.3	3.4	0.6					Breccia/shear zone. Minor quartz-Covellite veins, but rare. Covellite on fractures. <5% Clay
		11.3	15.0	3.7	0.9					Breccia/shear zone. Quartz-Covellite veins, and silica-cv flooding. Covellite on fractures. No Clay
		15.0	18.3	3.3	1.9					Breccia/shear zone. Quartz-Covellite veins. Covellite on fractures. Silicified zones.
		18.3	21.7	3.4	1.0	fractured				Breccia/shear zone. Quartz-Covellite veins. Covellite on fractures. Silicified zones. Broken vuggy veins
	b	29.2	34.4	5.2	0.3	fractured-veined	qz-cl-py	qz-py-gp-cv	Si-Py-Cv veins in shear	Breccia/shear zone. Minor Quartz-Covellite veins. Covellite on fractures. Three post mineral clay-rich shears, 10cm each
		34.4	38.8	4.4	0.7					Breccia/shear zone. Covellite on fractures. Larger quartz veins here, but one is parallel to CA
		38.8	43.0	4.2	0.5					Breccia/shear zone. Covellite on fractures. Larger quartz veins, unclear if parallel to CA? No clay
		43.0	47.3	4.3	0.4					Breccia/shear zone, prominent shear fabric. Covellite on fractures. Minor quartz veins, unclear if parallel to CA? No clay
		47.3	55.9	8.6	0.4	blocky-veined				Breccia/shear zone. Covellite on fractures. Minor quartz veins. No clay
		55.9	68.7	12.8	0.4	fractured-veined				shear/breccia hosted mineralization, but smaller clast size. Covellite on fractures. Minor quartz veins. No clay
		68.7	85.6	17.0	0.8	fractured				Shear/breccia hosted mineralization, but smaller clast size. Covellite on fractures. Minor quartz veins. No clay. Massive core
		85.6	90.0	4.4	0.7	blocky-veined				
		90.0	107.3	17.3	0.5	fractured-veined				Shear/breccia hosted mineralization, but smaller clast size, almost like a crystal tuff?. Covellite on fractures. Minor quartz veins. No clay.
		107.3	111.4	4.1	0.8					Shear/breccia hosted mineralization, but smaller clast size, almost like a crystal tuff?. Covellite on fractures. Minor quartz veins. No clay. Massive core
	c	137.3	141.4	4.1	0.4	fractured-veined	qz-cl-ch-py	py-qz-gp-cv	Si-Py-Cv veins in shear	Large quartz-sulphide vein and associated stockwork. Massive core. no clay.
	d	145.7	150.2	4.5	0.4	fractured	qz-cl-ch-py	py-qz-gp-cv	Si-Py-Cv veins in shear	There is a 1m wide quartz-sulphide vein. Massive core. no clay.
		150.2	155.1	4.9	0.5					shear/breccia hosted mineralization. Covellite on fractures and in veins. Minor quartz veins. No clay. Massive core
		155.1	166.9	11.9	0.4	fractured-veined				
BK049-01	a	18.7	23.1	4.4	0.4	crushed-blocky	qz-cl-py-ch	qz-py-cp-cv-cl	Si-Py-Cv veins in shear	Sheared / brecciated. Upper 3m contains sulphide and quartz veins. Lower 3m is broken and crushed. Not a lot of clay, perhaps 5%. Grade loss in lower zone
		23.1	27.8	4.7	0.1	crushed-veined		py-qz-cl-cp		Sheared / brecciated. Rubble for the top 2m, perhaps some grade loss. Not a lot of clay, perhaps 5%. Typical quartz-sulphide veins
		27.8	40.5	12.7	0.3	fractured-veined		qz-py-cp-cv-cr-cl		Sheared / brecciated. Minor white quartz veins. Not a lot of clay, perhaps 5%. Typical sulphide matrix of the shear zone, infill

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK050-01	a	3.6	7.0	3.4	1.0	fractured	qz-cl-py	py-qz-cv	Si-Py-Cv veins in shear	Sheared / brecciated. cut by quartz-cv-py veins, 3/meter. Pyrite veins, possibly without copper. Core is massive, very little clay
		7.0	10.6	3.6	1.1					Sheared / brecciated. cut by quartz-cv-py veins, 3/meter. Pyrite veins, possibly without copper. Core is massive, very little clay
		10.6	13.7	3.2	1.9			py-qz-cp		Sheared / brecciated. cut by quartz-cv-py veins, 3/meter. Pyrite veins, possibly without copper. Core is massive, very little clay
		13.7	17.3	3.6	0.5					Sheared / brecciated. cut by quartz-cv-py veins, 3/meter. Pyrite veins, possibly without copper. Core is massive, very little clay
	b	39.7	44.0	4.3	0.4	fractured	qz-cl-py	py-qz-cp	Si-Py-Cv veins in shear	Breccia/shear hosted mineralization, cut by quartz-cv-py veins. Locally massive sulphide veins, possibly chalcopyrite. Clay in shears, <5%
		44.0	48.3	4.3	0.3					Breccia/shear hosted mineralization, cut by quartz-cv-py veins. Locally massive sulphide veins, possibly chalcopyrite. Clay in shears, <5%
BK051-01	a	7.5	11.0	3.6	0.0	fractured	qz-cl-sm-py	qz-py	Nil	Prominent shear fabric, siliceous rock with disseminated pyrite
		11.0	14.8	3.8	0.1				Si-Py-Cv veins in shear	Prominent shear / breccia fabric, siliceous rock with disseminated pyrite and rare cv in quartz veins. Some obvious core loss from spinning around in the barrel
		14.8	17.8	3.0	0.2		qz-cl-sm-py-cp	qz-py-cp	Si-Py-cp veins in shear	Prominent shear / breccia fabric, very siliceous rock with disseminated pyrite and less than a percent cpy on fractures. Massive core, with two brittle fractured zones
		17.8	21.2	3.4	0.0				Nil	Prominent shear / breccia fabric, siliceous rock with disseminated pyrite and cm-scale pyrite veins, and noted wavy py-veins. Massive core, with narrow quartz veins
		21.2	24.8	3.6	0.0		qz-cl-sm-py	qz-py		Prominent shear / breccia fabric, siliceous rock with disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with narrow cm-scale structural breccias with clay matrix
	b	31.8	36.1	4.3	0.0	blocky-fractured	qz-cl-sm-py	qz-py-an-cp	Nil	Reduced to HQ at 31.8m
	c	53.7	57.9	4.3	0.0	blocky-fractured	qz-cl-sm-py	qz-py-an-cp	Nil	Sheared / brecciated. Although less obvious, shear fabric is present, siliceous rock with disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with large cm-scale quartz - pyrite veins
	d	75.3	79.5	4.2	0.2	fractured	qz-ch-cl-sm-py	qz-py-cp	Si-Py-cp veins in shear	Sheared / brecciated, silicified, disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with large crack-seal type quartz - chalcopyrite pyrite veins (irregular). Older generation of quartz veins are barren
		79.5	83.9	4.4	0.1	fractured-veined				Sheared / brecciated, silicified, disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with large quartz - chalcopyrite pyrite veins, 2-3vn/meter.
		83.9	88.1	4.2	0.3					Sheared / brecciated, silicified, with disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with large cm-scale quartz - chalcopyrite pyrite veins. , 2-3vn/meter.
		88.1	92.3	4.2	0.2	blocky-fractured				Sheared / brecciated, silicified, with disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with at least 2 large cm-scale quartz - chalcopyrite pyrite, 2-3vn/meter.
		92.3	96.7	4.4	0.2	fractured				Sheared / brecciated, silicified, with disseminated pyrite and mm-scale qtz-pyrite veins. Massive core, with at large cm-scale quartz - chalcopyrite pyrite veins. 2-3vn/meter.

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK052-01	a	0.0	6.9	6.9	0.0	fractured	pl-qz-ch-si-hb-bi-	cl	Nil	Mixed soil and boulders
		6.9	11.2	4.3	0.0	crushed-blocky				Strongly brecciated rock, silicified, brittle fractured. Significant core loss
BK054-01	a	41.3	45.8	4.5	0.2	crushed-fractured	cl-si-py	qz-py-cv-ga-cp-sl-cr	Si-Py-Cv/Cc veins in shear	Sheared / brecciated, with weak clay overprint. Crushed quartz veins. MM-scale quartz - sulphide veinlets
		45.8	50.1	4.4	0.5	fractured				Sheared / brecciated, with weak clay overprint. MM-CM-scale quartz - covellite veins. Also covellite veinlets. Mineralization parallels the shear, but also cross cuts the fabric
		50.1	54.7	4.6	0.6					Sheared / brecciated, with weak clay overprint. MM to CM -scale quartz - covellite veinlets, locally up to 10cm wide
		54.7	60.7	6.0	0.5					Sheared / brecciated, with weak clay overprint. MM to CM -scale quartz - covellite veinlets, locally up to 10cm wide. Locally thick quartz-pyrite veins
BK055-01	a	80.3	84.2	4.0	0.5	fractured	qz-ch-cl-sm	qz-py-cp-ch	Si-Py-cp veins in shear	More than 70% of the rock has been crushed by a reactivated structure, strong clay est. at 20%. Rock itself is strongly silicified, remnant shear fabric visible. Cut by hairline chalcopyrite veins. Significant py as disseminated grains and cm-scale veins
		84.2	88.9	4.7	0.7	fractured-veined				Sheared / brecciated. More than 50% of the rock has been crushed by reactivated structure, strong clay est. at 20%. Rock itself is strongly silicified, remnant shear fabric visible. Cut by thick cm-scale chalcopyrite veins. Significant py as disseminated grains and cm-scale veins
	b	97.9	102.1	4.2	0.5	fractured-veined	qz-ch-cl-sm	qz-py-cp-ch	Si-Py-cp veins in shear	Sheared / brecciated. Rock is strongly silicified, remnant shear fabric. Cut by thick cm-scale chalcopyrite - quartz veins. Significant py as disseminated grains and mm to cm-scale veinlets
	c	192.9	198.9	6.0	1.0	fractured-veined	cl-si-sm-ch-py	qz-py-an-ca-cp	Si-Py-cp veins in shear	Brecciated and sheared rock cut by >1m quartz-chalcopyrite vein.
BK056-01	a	0.0	5.2	5.2	0.7	fractured	qz-cl-sm-ch-py-ca	qz-py-cp-ca	Si-Py-cv veins in shear	Silicified rock after the oxidized zone, with pyrite. Minor covellite in quartz veins. Suspect mineralized and oxidized vein at top of hole

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
BK057-01	a	0.0	4.2	4.2	0.0	unconsolidated	cl-hm-lm-qz	N/R	Nil	Intensely oxidized quartz veins fragments mixed in clay and soil. Probably should have been analyzed.
		4.2	8.5	4.3	0.2	crushed-brecciated	cl-si-lm	qz-lm-py	Si-Py-Cv/Cc veins in shear	Massive quartz sulphide vein, completely oxidized, rock is brittle fractured and brecciated.
		8.5	12.3	3.8	1.5	fractured-blocky				First 2m in this core box is massive quartz sulphide vein, completely oxidized, rock is brittle fractured and brecciated. Following 2m interval is broken and contains 5% clay. There are notable quartz - chalcocite veins. Suspected CC after cv
		12.3	15.3	3.0	1.8	crushed-blocky	cl-si-py	qz-py-cv-cp		Sheared / brecciated. Brittle fractured and 100% broken/crushed and contains 10% clay. There are remnants of cm-scale quartz-covellite veins +- chalcocite on fractures.
		15.3	22.5	7.3	1.4	gouged				Brittle fractured and broken/crushed and contains 30% clay. There are remnants of cm-scale quartz-covellite veins +- chalcocite on fractures.
		22.5	25.7	3.2	1.0	fractured-veined				Massive to broken/crushed and minor clay. There are mm to cm-scale quartz-covellite and cpy veins. Average 5 wavy / irregular quartz-sulphide veins per meter
		25.7	29.0	3.3	0.7					Lower half of this interval is broken with some clay. There are 1-3 mm to cm-scale quartz-covellite and cpy veins / meter
		29.0	32.6	3.6	0.6					Strongly broken core, minor clay. Loss of core from tumbling inside the core barrel. There are only 3 mm to cm-scale quartz-covellite and cpy veins / meter
		32.6	36.9	4.3	0.3	gouged				Strongly broken core over the top 2m and strongly broken (<2% clay) and crushed core in the lower 2m (10-20% clay). There are only 2-3 mm to cm-scale quartz-covellite veins / meter
		36.9	41.2	4.4	0.4	fractured-veined	si-cl-ch-py	qz-py-cp		Strongly broken core and minor clay. There mm-scale quartz-covellite stockwork veins, probably 10% of the rock vol.
		41.2	46.7	5.5	0.5					Strongly broken core and minor clay. There mm-scale quartz-covellite and cpy stockwork veins, probably 10% of the rock vol. Locally large pyrite filled voids, forming cm-scale massive sulphide blebs
		46.7	51.1	4.4	0.2					Massive core, no clay. MM-scale quartz+-covellite +- cpy veins, est.. 2vn/meter.
BK058-01	a	8.9	14.0	5.1	3.2	fractured-blocky	cl-si-py	qz-py-cv-cp	Si-Py-Cv/Cc veins in shear	Significant core loss in the mineralized interval, perhaps 30-40% of the run was not recovered between 12.2-13.2m. This is the high grade vein material, comprising quartz-covellite pyrite, interpreted as silica ledge at surface
		14.0	18.5	4.5	8.5	blocky-fractured				Massive quartz-covellite pyrite vein, interpreted as silica ledges at surface. Good core recoveries here, core is massive, siliceous and in tact.
		18.5	22.9	4.4	3.2	fractured-veined		qz-py-cp-cv		Top 2m is massive quartz-covellite pyrite vein. Good core recovery, core is massive, siliceous and in tact. Lower section is Sheared / brecciated. Cut by anastomosing milky white quartz-cv veins
		22.9	27.3	4.5	0.5					Sheared / brecciated. Cut by anastomosing milky white quartz-cv veins, sub-parallel to core axis
		27.3	31.5	4.2	0.3	fractured-blocky				Sheared / brecciated. Cut by 2cm-scale anastomosing milky white quartz-cv veins / meter.
		31.5	35.8	4.3	0.2	fractured-veined				Sheared / brecciated. Cut by 1-2cm-scale anastomosing milky white quartz-cv veins / meter.
		35.8	40.1	4.3	0.5	blocky-veined				Sheared / brecciated. Cut by 1-2cm-scale anastomosing milky white quartz-cv veins / meter. One vein parallels the core axis
		40.1	44.6	4.5	0.3	fractured-veined				Sheared / brecciated. Cut by 1-2cm-scalemilky white quartz-cv veins / meter.

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
KBK0021	a	21.1	26.8	5.7	1.1	N/R	N/R	N/R	Si-Py-Cv/Cc veins in shear	Sheared / brecciated. Coated in gray clay, difficult to identify mineralization
		26.8	32.5	5.7	0.3					Sheared / brecciated. Rock is silicified and strongly broken, with quartz vein fragments in the rubble. Suspected qtz-cv veins
		32.5	38.2	5.7	0.1					Sheared / brecciated. Rock is silicified , with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy
		38.2	43.9	5.7	0.6					Sheared / brecciated. Rock is silicified, with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy. Massive core
		43.9	49.9	6.0	0.8					Sheared / brecciated. Rock is silicified and strongly broken, with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy. Minor zone of clay, good recoveries
		49.9	55.1	5.2	0.5					Sheared / brecciated. Rock is silicified, with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy.
		55.1	60.6	5.4	1.0					Sheared / brecciated. Rock is silicified and broken, with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy. Minor zone of clay, might be some core loss
		60.6	66.3	5.7	0.1					Sheared / brecciated. Rock is silicified and broken, with quartz-sulphide veins, bleached . Poor quality images make it impossible to identify cv vs. cpy. Minor zone of clay, might be some core loss
	b	76.9	82.9	5.9	0.2	N/R	N/R	N/R	Si-Py-Cp veins in shear	Sheared / brecciated. Rock is silicified and broken, with quartz-sulphide veins and moderate clay. Poor quality images make it impossible to identify cv vs. cpy.
		82.9	88.1	5.3	0.1					Sheared / brecciated. Rock is silicified and broken, with quartz-sulphide veins. Poor quality images make it impossible to identify cv vs. cpy.
	c	114.5	120.2	5.7	0.3	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia / Shear zone, silicified, cut by anastomosing milky white quartz - cpy veins, 2-4 / meter, mm-scale. Massive core
		120.2	125.6	5.4	0.4					Breccia / Shear zone, silicified, cut by milky white quartz - cpy veins, 2 / meter, cm-scale. Massive core
	d	141.5	146.8	5.3	0.1	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia / Shear zone, silicified, cut by milky white quartz - cpy veins, 2-4 / meter, cm-scale. Large vein parallel to core axis. Massive core
		146.8	158.2	11.4	0.2					Breccia / Shear zone, silicified, cut by milky white quartz - cpy veins, 2 / meter, cm-scale.
		158.2	164.3	6.1	0.9					Breccia / Shear zone, silicified, cut by milky white quartz - cpy veins, 2 / meter, cm-scale. Locally 2-3cm wide cpy veins with mm-scale veinlets, mini stockwork zone
		164.3	171.7	7.4	0.6					Breccia / Shear zone, silicified, cut by milky white quartz - cpy veins, 2 / meter, cm-scale. Top of hole are 1-2cm wide cpy veins with mm-scale veinlets, mini stockwork zone. Qtz-py-cpy vein parallels the core axis
		171.7	178.9	7.2	0.1					Breccia / Shear zone, silicified, cut by minor milky white quartz - cpy veins
		178.9	186.3	7.3	0.8					Breccia / Shear zone, silicified, cut by a 3cm wide milky white quartz - py - cpy vein that parallels the core axis
KBK0023	a	30.3	40.7	10.4	0.3	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, silicified, cut by stockwork vein system, suspected quartz - cpy. Poor image quality. Core is massive, no clay
		40.7	45.8	5.2	0.2					Breccia zone, silicified, cut by stockwork vein system, suspected quartz - cpy. Poor image quality. Core is massive, minor clay in a 30cm shear
	b	71.3	76.5	5.2	0.4	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, silicified, cut by minor quartz - cpy veins. Poor image quality. Core is broken, minor clay in a 30cm shear
		76.5	81.7	5.2	0.5					Breccia zone, cut by minor quartz - cpy veins. Core is broken, moderate clay in a 2m shear zone
		81.7	87.0	5.3	0.2					Breccia zone, cut by minor quartz - cpy veins. Core is broken in 10cm chunks, minor clay
	c	138.1	152.4	14.3	0.3	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, cut by minor cm-scale quartz cpy veins. Core is broken in 10cm chunks, no clay
KBK0024	a	97.3	119.4	22.2	0.6	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia, strongly silicified, original rock texture destroyed and is cut by a quartz stockwork vein system, contains cpy and py. Core is massive, good recoveries
		119.4	134.1	14.7	0.4					Breccia, strongly silicified, original rock texture destroyed and is cut by quartz - cpy and py veins, cm-scale, 2/meter. Core is massive, good recoveries

Hole	Photo Logging Interval	KSK Supplied Structure and Mineralisation Log							Core Photo Relog H&A and Mr. Steven Hughes (KSK)	
		From	To	Int	Cu%	Gross-Meas Structure	Non-Vein minerals	Vein Minerals	Mineralisation Setting	Core Photo Logging Description
KBK0023	a	30.3	40.7	10.4	0.3	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, silicified, cut by stockwork vein system, suspected quartz - cpy. Poor image quality. Core is massive, no clay
		40.7	45.8	5.2	0.2					Breccia zone, silicified, cut by stockwork vein system, suspected quartz - cpy. Poor image quality. Core is massive, minor clay in a 30cm shear
	b	71.3	76.5	5.2	0.4	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, silicified, cut by minor quartz - cpy veins. Poor image quality. Core is broken, minor clay in a 30cm shear
		76.5	81.7	5.2	0.5					Breccia zone, cut by minor quartz - cpy veins. Core is broken, moderate clay in a 2m shear zone
		81.7	87.0	5.3	0.2					Breccia zone, cut by minor quartz - cpy veins. Core is broken in 10cm chunks, minor clay
	c	138.1	152.4	14.3	0.3	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia zone, cut by minor cm-scale quartz cpy veins. Core is broken in 10cm chunks, no clay
KBK0024	a	97.3	119.4	22.2	0.6	N/R	N/R	N/R	Si-Py-Cp veins in shear	Breccia, strongly silicified, original rock texture destroyed and is cut by a quartz stockwork vein system, contains cpy and py. Core is massive, good recoveries
		119.4	134.1	14.7	0.4					Breccia, strongly silicified, original rock texture destroyed and is cut by quartz - cpy and py veins, cm-scale, 2/meter. Core is massive, good recoveries

Appendix 6 Descriptions of mineralization styles

Breccia/shear style, low grade copper mineralization. Mineralization is dominated by chalcopyrite, but contains white quartz along the vein margins. The breccia contains no copper. This entire zone assayed 0.20% Cu. Chalcopyrite – dominated ore. Vein density is very low, only 2 veins / box

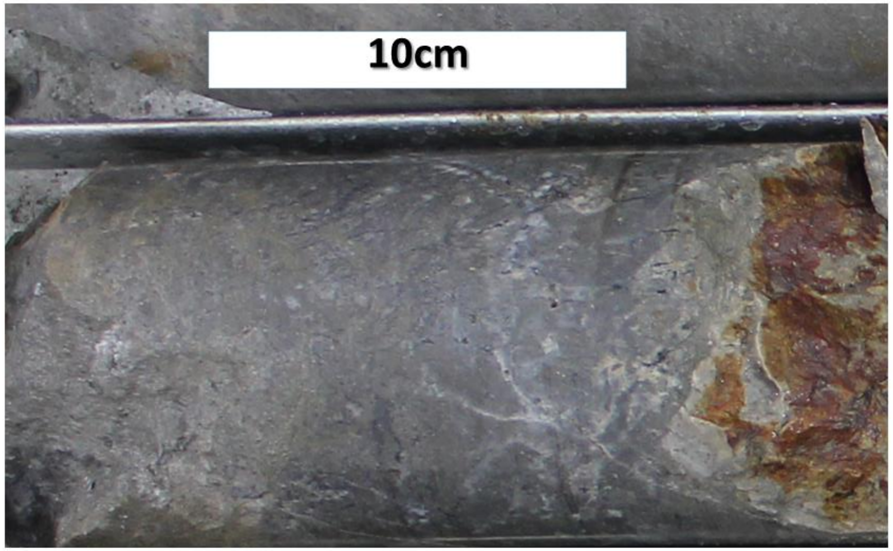
Breccia/shear style, high grade copper mineralization. There are "stretched clasts" in the breccia, suggesting it is a shear zone. Mineralization is dominated by white quartz veins containing cpy and pyrite. The breccia contains no copper. This entire zone assayed 1.10% Cu. Chalcopyrite – dominated ore. Vein density is much higher, at least 2 veins / meter

Breccia/shear style, moderate grade copper mineralization. Vein density is similar to the box below, but this box is not "bleached". This entire zone assayed 0.49% Cu. Chalcopyrite – dominated ore. Vein density is moderate, roughly 1 significant (i.e. >1cm wide) vein / meter

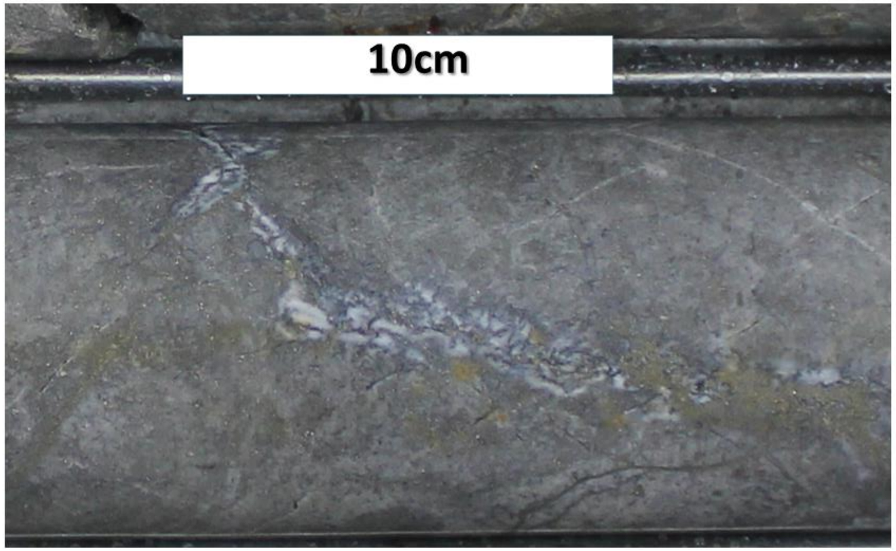
Breccia/shear style, moderate grade copper mineralization. Vein density is similar to the box above, but this box is "bleached". This entire zone assayed 0.57% Cu. Chalcopyrite – dominated ore. Veins are thicker than above, but vein density is lower, roughly 1 significant (i.e. >1cm wide) vein per two meter interval

Siliciclastics (?) cut by copper-bearing quartz veins. Vein density is similar to the box below, only 3-5 per box. This entire zone assayed 0.81% Cu. Chalcopyrite – dominated ore. There is a breccia zone in the last couple of meters of this box.

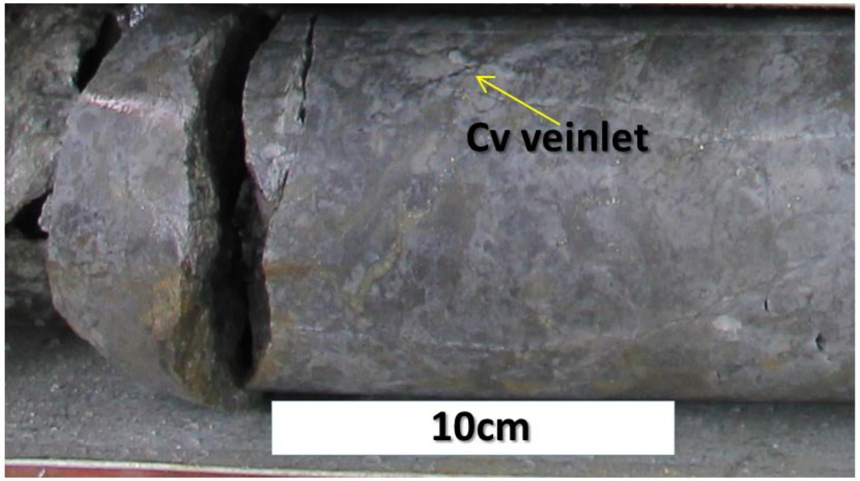
Siliciclastics (?) cut by copper-bearing quartz veins. Vein density is similar to the box above, only 3-5 per box. This entire zone assayed 0.92% Cu. Chalcopyrite – dominated ore. Could this be basalt? Some work needs to be done on the host rocks.



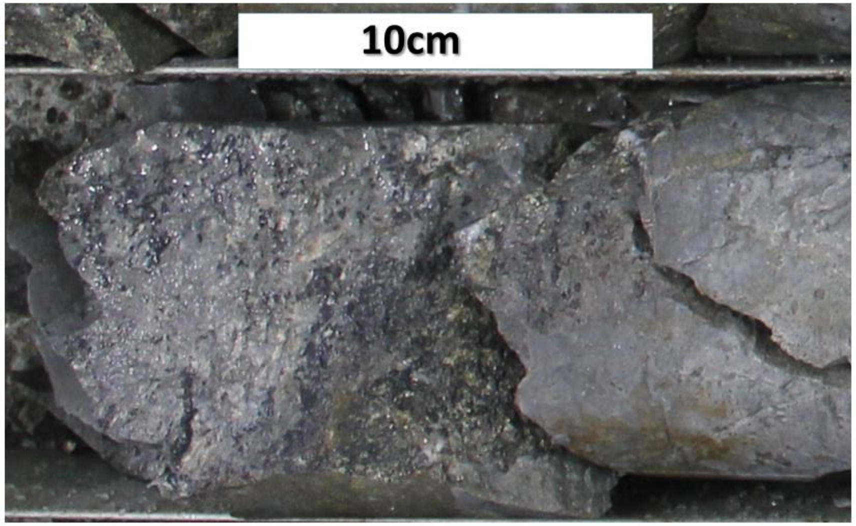
Copper Mineralization – Covellite Dominated. Not your classic quartz, but more like a silica flooded zone. Note the abundant indigo blue or purple-blue covellite throughout this interval. (BK048-01 Box 04_11.30-15.00)



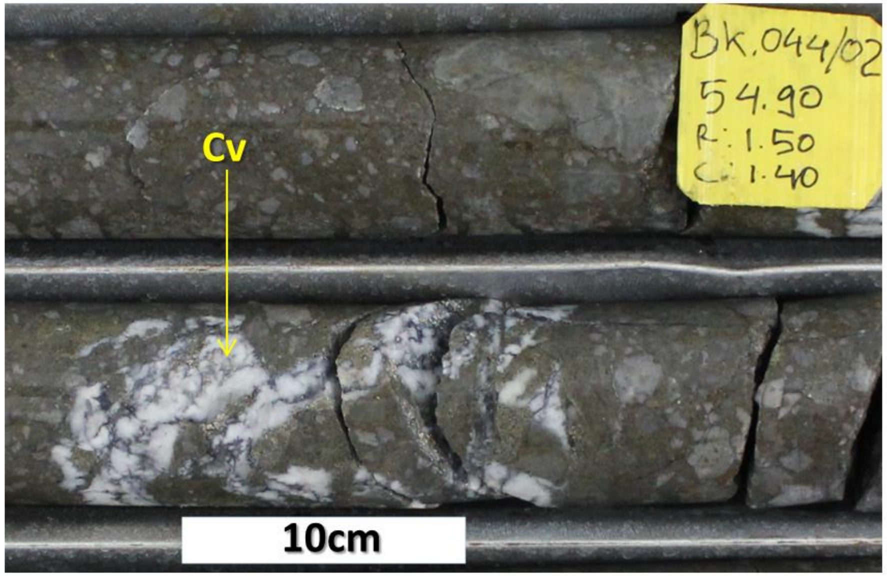
Siliciclastics (?) cut by copper-bearing quartz veins. This is a more classic quartz vein, milky white, and contains abundant indigo blue or purple-blue covellite. (BK048-01 Box 04_11.30-15.00)



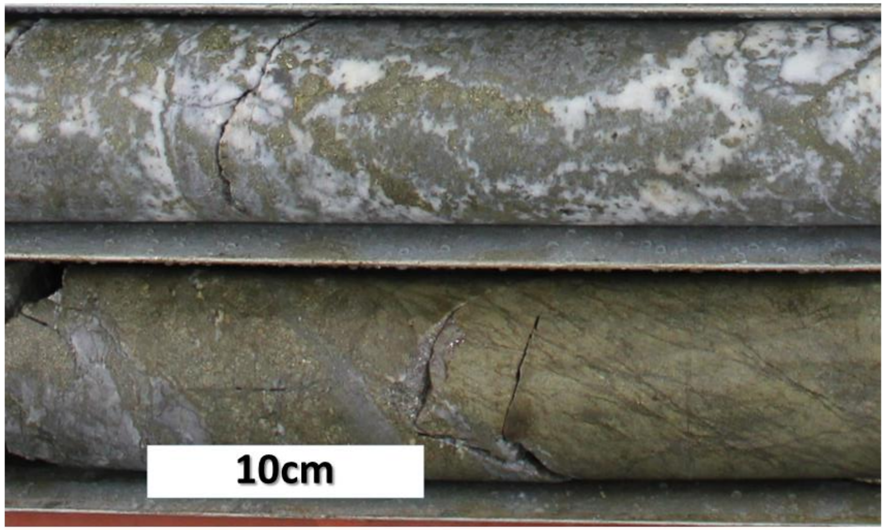
Copper Mineralization – Covellite Dominated. These are thin cv veinlets that occur in the breccia, which is silicified. (BK048-01 Box 05_15.00-18.30)



Siliciclastics (?) cut by copper-bearing quartz veins. These are cv coated fractures in the breccia, which is silicified. (BK048-01 Box 05_15.00-18.30)

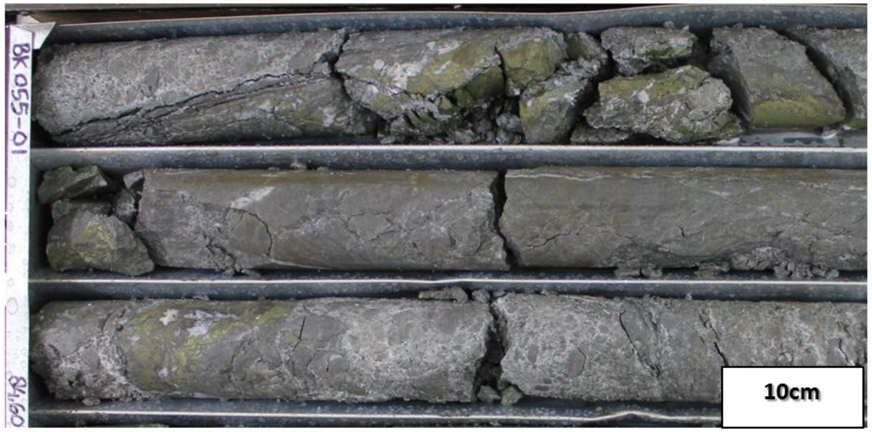


Copper Mineralization – Covellite Dominated. These are thick milky white quartz veins containing covellite, that clearly cut the older breccia, which is silicified. (BK044-02 Box 14_53.60-57.80)



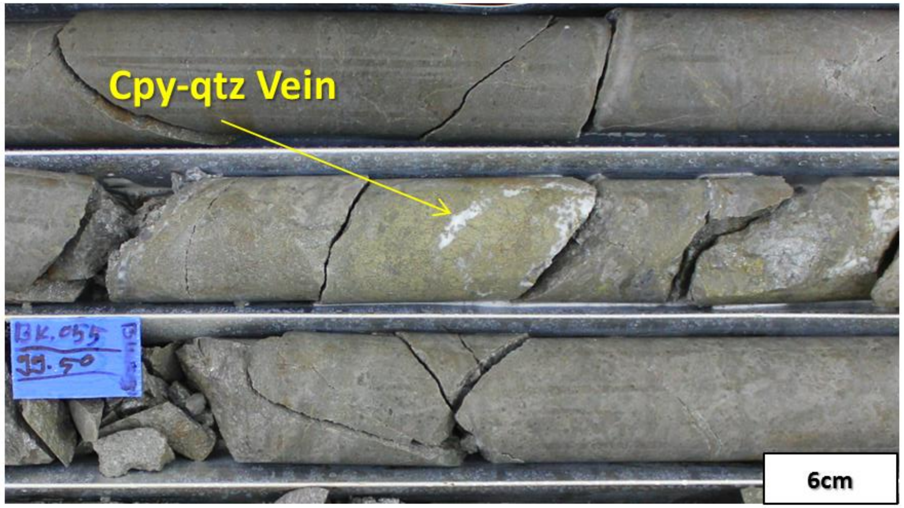
Copper Mineralization – Chalcopyrite Dominated. These are still the thick milky white quartz veins, but now contain chalcopyrite. (BK046-01 Box 25_104.15-108.50)

Copper Mineralization – Covellite Dominated. These are thick gray, massive quartz veins containing minor covellite, that clearly cut the breccia, which is also silicified. (BK054-01 Box 11_54.70-60.65)



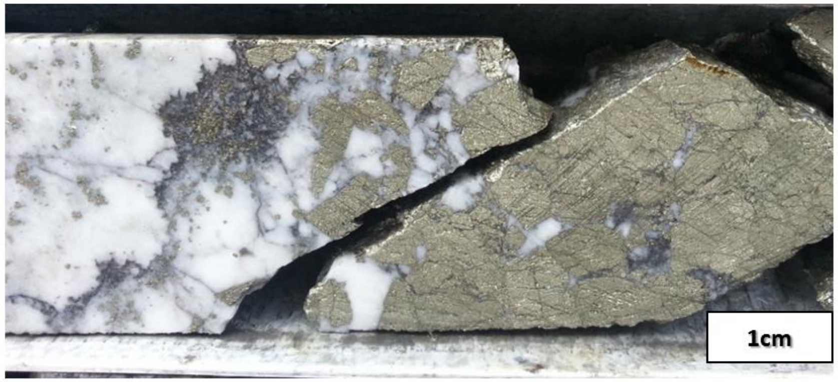
Copper Mineralization – Chalcopyrite Dominated. These are thick chalcopyrite – dominated veins with minor milky white quartz gangue. (BK046-01 Box 25_104.15-108.50)

Veins are not straight, commonly wavy or irregular



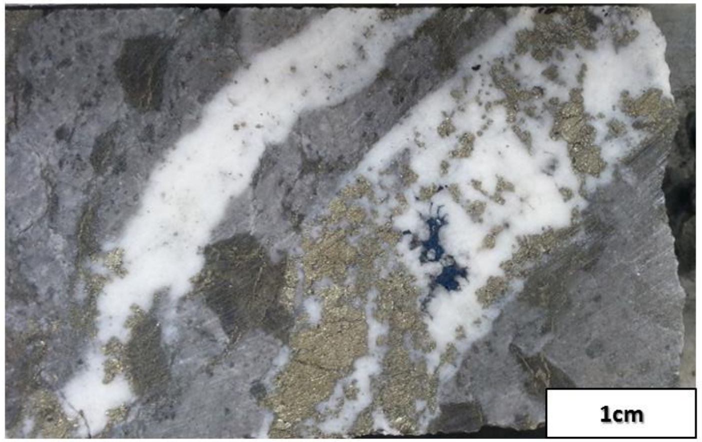
Copper Mineralization – Chalcopyrite Dominated. These are thick chalcopyrite – dominated veins with minor milky white quartz gangue. (BK055-01 Box 24_97.90-102.10). Host rock strongly sheared and silicified, with abundant hairline to mm-scale pyrite veinlets. These veins are sometimes dominated by py with little or no cpy

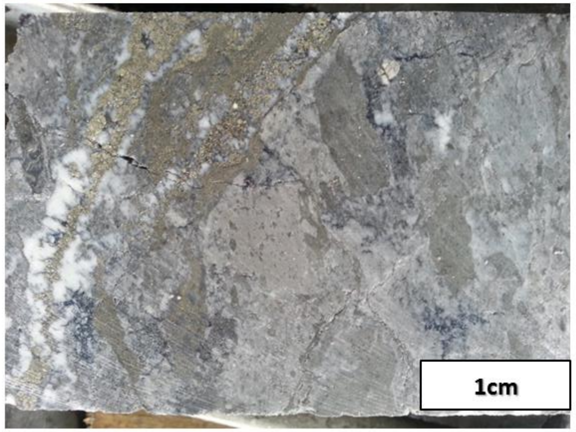
Copper Mineralization – Covellite Dominated. These are massive quartz-pyrite-covellite veins, that geologists often refer to as "silica ledges" in the field. These contain bonanza grade copper values, up to 10% over 3m intervals. (BK054-01 Box 11_54.70-60.65)



Copper Mineralization – Covellite Dominated. Thick quartz-covellite veins, which typically are wavy, appear to have crack sealed fractures or are anastomosing. Host rock strongly sheared and silicified, with abundant hairline to mm-scale pyrite veinlets. Weakly phyllic altered host rock

Copper Mineralization – Covellite Dominated. Thick quartz-covellite veins, which typically are wavy, appear to have crack sealed fractures or are anastomosing. Host rock strongly sheared and silicified, with abundant hairline to mm-scale pyrite veinlets. Weakly phyllic altered host rock





Appendix 7 Tabulated significant copper mineralised drill intercepts

Hole	Category	From	To	Interval	Cu (%)
BK029	**>0.2%Cu**	11.00	38.00	27.00	0.56
	incl. >1.0%Cu	29.00	32.00	3.00	1.09
	>0.2%Cu	44.00	105.50	61.50	0.47
	incl. >1.0%Cu	78.50	81.50	3.00	1.32
	incl. >1.0%Cu	87.50	90.50	3.00	1.05
	>0.2%Cu	117.50	126.50	9.00	0.42
	>0.2%Cu	167.00	173.00	6.00	2.37
	incl. >1.0%Cu	170.00	173.00	3.00	4.50
BK030	**>0.2%Cu**	4.50	16.50	12.00	0.43
	>0.2%Cu	55.50	64.50	9.00	0.23
	>0.2%Cu	91.10	97.10	6.00	0.25
	>0.2%Cu	136.10	148.10	12.00	0.78
	incl. >1.0%Cu	136.10	145.10	9.00	0.93
BK031	**>0.2%Cu**	16.00	41.45	25.45	0.67
	incl. >1.0%Cu	38.00	41.45	3.45	1.11
	>0.2%Cu	68.00	83.00	15.00	0.33
	>0.2%Cu	92.00	110.00	18.00	0.21
BK032	**>0.2%Cu**	2.80	8.80	6.00	0.32
	>0.2%Cu	14.80	75.40	60.60	0.74
	incl. >1.0%Cu	17.80	20.90	3.10	1.04
	incl. >1.0%Cu	27.10	30.10	3.00	1.07
	incl. >1.0%Cu	44.95	48.05	3.10	1.47
	incl. >1.0%Cu	63.30	69.30	6.00	1.66
	>0.2%Cu	138.60	171.65	33.05	0.29
	>0.2%Cu	175.15	182.15	7.00	1.24
	incl. >1.0%Cu	178.65	182.15	3.50	2.14
	>0.2%Cu	190.25	202.75	12.50	1.05
	incl. >1.0%Cu	192.75	199.25	6.50	1.38
	>0.2%Cu	208.75	220.50	11.75	0.55
	incl. >1.0%Cu	214.75	217.75	3.00	1.06
BK033	**>0.2%Cu**	18.60	60.50	41.90	0.39
BK034	**>0.2%Cu**	2.70	65.10	62.40	0.65
	incl. >1.0%Cu	40.85	50.00	9.15	1.55
	>0.2%Cu	70.60	96.60	26.00	0.48
	>0.2%Cu	129.60	141.60	12.00	0.89
	incl. >1.0%Cu	135.60	138.60	3.00	2.34
	>0.2%Cu	171.60	237.70	66.10	0.96
	incl. >1.0%Cu	177.60	192.70	15.10	2.26
	incl. >1.0%Cu	219.70	222.70	3.00	1.28
BK035	**>0.2%Cu**	31.40	46.10	14.70	0.46
	incl. >1.0%Cu	31.40	34.40	3.00	1.49
	>0.2%Cu	69.20	123.20	54.00	0.48
	incl. >1.0%Cu	117.20	120.20	3.00	1.09
BK036	**>0.2%Cu**	6.30	32.30	26.00	0.49
	incl. >1.0%Cu	21.40	24.80	3.40	1.10
	>0.2%Cu	38.75	59.40	20.65	0.45
BK038	**>0.2%Cu**	66.80	81.80	15.00	0.61
	incl. >1.0%Cu	66.80	70.30	3.50	1.40
	>0.2%Cu	87.30	134.30	47.00	0.69
	incl. >1.0%Cu	108.80	117.80	9.00	1.22
	>0.2%Cu	176.30	183.30	7.00	0.34
	>0.2%Cu	195.50	207.20	11.70	0.49
BK041	*incl. >1.0%Cu*	112.60	116.05	3.45	1.65

Hole	Category	From	To	Interval	Cu (%)
BK044	**>0.2%Cu**	0.00	18.70	18.70	1.22
	incl. >1.0%Cu	3.30	6.40	3.10	1.63
	incl. >1.0%Cu	12.60	18.70	6.10	1.99
	>0.2%Cu	45.00	68.40	23.40	0.35
	>0.2%Cu	150.10	159.00	8.90	0.43
	>0.2%Cu	165.10	195.20	30.10	0.50
	incl. >1.0%Cu	183.10	186.10	3.00	1.26
	>0.2%Cu	198.30	204.30	6.00	0.50
BK044-02	**>0.2%Cu**	4.00	25.00	21.00	1.57
	incl. >1.0%Cu	7.00	22.00	15.00	1.99
	>0.2%Cu	38.10	59.30	21.20	0.56
	incl. >1.0%Cu	53.40	56.40	3.00	1.38
	>0.2%Cu	198.50	210.50	12.00	0.93
	incl. >1.0%Cu	201.50	207.30	5.80	1.34
	>0.2%Cu	216.40	225.50	9.10	1.08
	incl. >1.0%Cu	222.50	225.50	3.00	1.95
	>0.2%Cu	296.00	300.00	4.00	0.23
BK045	**>0.2%Cu**	1.40	27.80	26.40	2.10
	incl. >1.0%Cu	4.30	21.80	17.50	2.95
	>0.2%Cu	42.20	48.30	6.10	0.61
BK046	**>0.2%Cu**	6.00	17.20	11.20	0.69
	>0.2%Cu	20.70	91.10	70.40	0.54
	incl. >1.0%Cu	50.50	53.50	3.00	1.37
	incl. >1.0%Cu	73.60	79.30	5.70	1.26
	>0.2%Cu	141.00	181.50	40.50	0.56
	incl. >1.0%Cu	160.50	169.50	9.00	0.74
	incl. >1.0%Cu	175.50	178.50	3.00	1.01
BK047	**>0.2%Cu**	41.10	58.50	17.40	0.49
	incl. >1.0%Cu	163.00	166.20	3.20	1.86
BK048	**>0.2%Cu**	1.50	112.00	110.50	0.59
	incl. >1.0%Cu	13.50	19.50	6.00	1.85
	incl. >1.0%Cu	70.50	73.50	3.00	1.20
	incl. >1.0%Cu	106.00	109.00	3.00	1.16
	>0.2%Cu	136.00	142.85	6.85	0.41
	>0.2%Cu	147.85	169.00	21.15	0.45
	>0.2%Cu	178.00	190.00	12.00	0.27
	incl. >1.0%Cu	273.50	276.70	3.20	1.44
BK050	**>0.2%Cu**	0.60	16.00	15.40	1.03
	incl. >1.0%Cu	3.60	6.80	3.20	1.06
	incl. >1.0%Cu	10.00	13.00	3.00	2.74
	>0.2%Cu	38.30	47.00	8.70	0.42
BK051	**>0.2%Cu**	188.00	194.00	6.00	0.31
BK052	**>0.2%Cu**	90.20	105.20	15.00	0.28
BK053	**>0.2%Cu**	190.00	196.00	6.00	0.31
BK054	**>0.2%Cu**	45.00	58.50	13.50	0.56
	>0.2%Cu	65.50	77.50	12.00	0.32
BK055	*incl. >1.0%Cu*	82.90	85.90	3.00	1.58
	incl. >1.0%Cu	194.40	197.40	3.00	2.09
BK057	**>0.2%Cu**	7.70	47.70	40.00	0.89
	incl. >1.0%Cu	10.70	16.30	5.60	1.92
	incl. >1.0%Cu	19.70	22.70	3.00	1.88
	>0.2%Cu	53.70	59.70	6.00	0.28

Hole	Category	From	To	Interval	Cu (%)
BK058	**>0.2%Cu**	11.70	44.70	33.00	2.28
	incl. >1.0%Cu	11.70	20.70	9.00	7.35
	>0.2%Cu	55.20	61.20	6.00	0.30
	>0.2%Cu	103.20	118.20	15.00	0.61
	incl. >1.0%Cu	115.20	118.20	3.00	1.40
BK-1	**>0.2%Cu**	22.50	42.50	20.00	1.12
	incl. >1.0%Cu	22.50	28.50	6.00	2.94
	>0.2%Cu	54.50	66.50	12.00	0.27
	>0.2%Cu	72.50	93.50	21.00	0.41
	>0.2%Cu	111.50	117.50	6.00	0.31
	>0.2%Cu	132.50	141.50	9.00	0.34
	>0.2%Cu	147.50	153.50	6.00	0.45
BK-10	**>0.2%Cu**	50.70	61.40	10.70	0.41
	>0.2%Cu	237.50	249.80	12.30	0.58
BK-11	**>0.2%Cu**	0.00	6.00	6.00	1.97
	incl. >1.0%Cu	0.00	6.00	6.00	1.97
	>0.2%Cu	99.00	114.00	15.00	0.31
BK-12	*incl. >1.0%Cu*	43.60	46.60	3.00	2.25
BK-15	**>0.2%Cu**	6.00	42.00	36.00	0.55
	incl. >1.0%Cu	18.00	21.00	3.00	1.07
	incl. >1.0%Cu	36.00	39.00	3.00	1.47
BK-18	**>0.2%Cu**	89.80	98.80	9.00	0.53
	>0.2%Cu	104.80	119.80	15.00	0.26
	>0.2%Cu	140.80	164.80	24.00	0.81
	incl. >1.0%Cu	143.80	146.80	3.00	2.60
	incl. >1.0%Cu	152.80	155.80	3.00	1.90
BK-2	**>0.2%Cu**	4.50	97.50	93.00	0.75
	incl. >1.0%Cu	7.50	10.50	3.00	1.79
	incl. >1.0%Cu	22.50	25.50	3.00	1.81
	incl. >1.0%Cu	40.50	49.50	9.00	2.39
	>0.2%Cu	124.50	130.50	6.00	0.25
	>0.2%Cu	136.50	171.50	35.00	0.66
	incl. >1.0%Cu	154.50	166.50	12.00	1.11
BK-3	**>0.2%Cu**	6.40	37.40	31.00	0.97
	incl. >1.0%Cu	6.40	22.40	16.00	1.43
	>0.2%Cu	43.40	85.40	42.00	0.93
	incl. >1.0%Cu	49.40	55.40	6.00	1.42
	incl. >1.0%Cu	70.40	85.40	15.00	1.15
	>0.2%Cu	136.40	142.40	6.00	1.15
	incl. >1.0%Cu	136.40	139.40	3.00	1.62
BK31650-03	**>0.2%Cu**	34.00	60.00	26.00	1.57
	incl. >1.0%Cu	40.00	50.00	10.00	2.95
BK31650-04	**>0.2%Cu**	58.00	72.60	14.60	0.42
BK31650-05	**>0.2%Cu**	21.00	33.00	12.00	1.22
	>0.2%Cu	45.00	70.00	25.00	0.42
BK31650-06	**>0.2%Cu**	6.70	25.00	18.30	0.43
	>0.2%Cu	64.00	81.00	17.00	0.39
BK31750-01	**>0.2%Cu**	17.00	36.00	19.00	0.47
	>0.2%Cu	39.00	75.10	36.10	0.38
BK31750-02	**>0.2%Cu**	12.50	70.50	58.00	1.04
	incl. >1.0%Cu	17.50	33.50	16.00	1.67
	incl. >1.0%Cu	45.50	56.50	11.00	1.45

Hole	Category	From	To	Interval	Cu (%)
BK31750-03	**>0.2%Cu**	5.00	72.00	67.00	0.72
	incl. >1.0%Cu	9.00	22.00	13.00	1.26
BK31750-04	**>0.2%Cu**	39.00	75.30	36.30	0.73
	incl. >1.0%Cu	50.00	53.00	3.00	2.60
BK31750-05	**>0.2%Cu**	16.00	32.00	16.00	0.97
	incl. >1.0%Cu	18.00	29.00	11.00	1.21
BK31750-06	**>0.2%Cu**	7.20	24.50	17.30	0.28
	incl. >1.0%Cu	78.00	85.00	7.00	1.02
BK31750-09	**>0.2%Cu**	47.00	56.30	9.30	0.64
BK31800-01	**>0.2%Cu**	9.00	30.00	21.00	1.77
	incl. >1.0%Cu	9.00	25.00	16.00	2.12
	>0.2%Cu	35.00	66.00	31.00	0.91
	incl. >1.0%Cu	45.00	54.00	9.00	1.42
BK31800-02	**>0.2%Cu**	52.00	77.00	25.00	0.32
BK31850-02	*incl. >1.0%Cu*	7.00	17.00	10.00	3.16
BK31850-03	**>0.2%Cu**	13.50	25.50	12.00	0.82
BK31950-03	**>0.2%Cu**	3.50	22.00	18.50	0.31
BK31950-04	**>0.2%Cu**	1.00	13.00	12.00	0.34
	>0.2%Cu	18.00	43.00	25.00	0.53
BK32050-02	**>0.2%Cu**	1.10	19.00	17.90	0.69
	>0.2%Cu	22.00	64.00	42.00	0.50
BK32150-02	**>0.2%Cu**	3.15	57.00	53.85	0.45
BK32150-03	**>0.2%Cu**	0.50	21.50	21.00	0.53
	incl. >1.0%Cu	8.50	12.00	3.50	1.27
	>0.2%Cu	29.50	36.50	7.00	0.52
	>0.2%Cu	58.00	84.50	26.50	0.64
	incl. >1.0%Cu	77.00	83.50	6.50	1.19
BK32200-01	**>0.2%Cu**	2.00	59.00	57.00	0.57
	incl. >1.0%Cu	52.00	55.00	3.00	1.38
	>0.2%Cu	75.00	84.00	9.00	1.72
BK32200-02	**>0.2%Cu**	26.00	106.80	80.80	0.63
	incl. >1.0%Cu	69.50	73.00	3.50	1.31
BK32200-03	**>0.2%Cu**	1.60	50.00	48.40	1.62
	incl. >1.0%Cu	5.00	12.00	7.00	2.49
	incl. >1.0%Cu	38.00	42.00	4.00	4.56
	>0.2%Cu	53.50	80.00	26.50	0.56
	>0.2%Cu	84.00	90.00	6.00	0.42
BK32250-02	**>0.2%Cu**	3.00	11.00	8.00	1.60
	incl. >1.0%Cu	4.00	11.00	7.00	1.79
	>0.2%Cu	15.50	32.00	16.50	1.15
	incl. >1.0%Cu	18.00	30.00	12.00	1.34
	>0.2%Cu	53.00	92.00	39.00	1.12
	incl. >1.0%Cu	67.00	84.00	17.00	1.82
BK32250-03	**>0.2%Cu**	10.00	44.00	34.00	2.04
	incl. >1.0%Cu	23.00	40.00	17.00	3.40
	>0.2%Cu	50.00	101.90	51.90	1.38
	incl. >1.0%Cu	64.00	77.00	13.00	1.46
	incl. >1.0%Cu	83.00	101.90	18.90	2.08

Hole	Category	From	To	Interval	Cu (%)
BK32350-02	**>0.2%Cu**	20.00	57.00	37.00	1.65
	incl. >1.0%Cu	20.00	43.00	23.00	2.27
	>0.2%Cu	63.00	92.00	29.00	0.95
	incl. >1.0%Cu	72.00	77.00	5.00	2.84
BK32350-03	**>0.2%Cu**	4.50	17.50	13.00	0.65
	>0.2%Cu	24.50	37.50	13.00	0.49
	>0.2%Cu	40.50	66.00	25.50	0.57
	>0.2%Cu	100.00	119.00	19.00	0.49
	>0.2%Cu	124.00	143.10	19.10	0.40
BK32350-04	**>0.2%Cu**	15.00	35.00	20.00	0.33
	>0.2%Cu	45.00	64.00	19.00	0.34
	>0.2%Cu	68.00	74.00	6.00	0.73
BK32350-05	**>0.2%Cu**	81.50	88.50	7.00	0.65
	>0.2%Cu	92.00	108.00	16.00	0.39
BK32450-01	**>0.2%Cu**	4.70	18.70	14.00	2.02
	incl. >1.0%Cu	4.70	14.70	10.00	2.58
	>0.2%Cu	32.00	54.00	22.00	0.88
	incl. >1.0%Cu	35.00	39.00	4.00	1.18
	incl. >1.0%Cu	45.00	51.00	6.00	1.57
	>0.2%Cu	82.00	91.00	9.00	0.85
BK32450-02	**>0.2%Cu**	28.50	51.50	23.00	0.47
BK32450-03	**>0.2%Cu**	30.00	44.00	14.00	0.57
BK32450-04	*incl. >1.0%Cu*	58.00	62.00	4.00	1.40
BK32450-05	**>0.2%Cu**	12.00	33.00	21.00	1.31
	incl. >1.0%Cu	12.00	27.00	15.00	1.75
BK32500-01	**>0.2%Cu**	24.00	100.00	76.00	0.70
	incl. >1.0%Cu	25.00	31.00	6.00	1.67
BK32500-02	**>0.2%Cu**	3.00	114.00	111.00	0.76
	incl. >1.0%Cu	3.00	9.00	6.00	1.61
	incl. >1.0%Cu	67.00	74.00	7.00	1.35
BK32500-03	**>0.2%Cu**	10.30	156.40	146.10	0.65
	incl. >1.0%Cu	131.00	135.00	4.00	1.13
BK32550-02	**>0.2%Cu**	37.00	58.00	21.00	0.67
	incl. >1.0%Cu	42.00	46.00	4.00	1.55
BK32550-03	**>0.2%Cu**	6.00	80.00	74.00	0.69
	incl. >1.0%Cu	34.00	46.00	12.00	1.41
BK32550-04	**>0.2%Cu**	1.60	44.00	42.40	1.00
	incl. >1.0%Cu	2.50	26.50	24.00	1.28
	>0.2%Cu	78.00	94.00	16.00	0.58
BK32550-06	**>0.2%Cu**	3.00	51.50	48.50	2.92
	incl. >1.0%Cu	3.00	10.50	7.50	4.11
BK32550-07	**>0.2%Cu**	10.00	96.00	86.00	0.95
	incl. >1.0%Cu	32.00	61.00	29.00	1.29
	incl. >1.0%Cu	68.00	78.00	10.00	1.30
	incl. >1.0%Cu	83.00	88.50	5.50	1.11
	>0.2%Cu	99.00	120.00	21.00	0.48
BK32650-01	**>0.2%Cu**	10.00	41.00	31.00	0.83
	incl. >1.0%Cu	17.00	28.00	11.00	1.49
	>0.2%Cu	45.00	68.00	23.00	0.78
	incl. >1.0%Cu	63.00	68.00	5.00	2.37

Hole	Category	From	To	Interval	Cu (%)
BK-4	*incl. >1.0%Cu*	6.00	9.00	3.00	1.12
	>0.2%Cu	18.00	84.00	66.00	0.64
	incl. >1.0%Cu	21.00	24.00	3.00	1.43
	incl. >1.0%Cu	54.00	60.00	6.00	1.39
	incl. >1.0%Cu	69.00	72.00	3.00	1.24
	>0.2%Cu	96.00	111.00	15.00	0.59
	incl. >1.0%Cu	105.00	108.00	3.00	1.24
	>0.2%Cu	156.00	162.00	6.00	0.24
BK-5	**>0.2%Cu**	3.00	66.00	63.00	0.75
	incl. >1.0%Cu	3.00	6.00	3.00	1.15
	incl. >1.0%Cu	12.00	15.00	3.00	1.26
	incl. >1.0%Cu	39.00	45.00	6.00	1.46
	incl. >1.0%Cu	60.00	63.00	3.00	1.02
	>0.2%Cu	99.00	105.00	6.00	1.89
	incl. >1.0%Cu	102.00	105.00	3.00	2.98
BK-6	**>0.2%Cu**	18.00	42.00	24.00	0.40
BKD01-01	**>0.2%Cu**	309.40	321.40	12.00	0.26
BKD02-01	**>0.2%Cu**	205.00	211.50	6.50	0.68
BKD02-02	**>0.2%Cu**	204.30	212.50	8.20	0.71
	incl. >1.0%Cu	204.30	207.30	3.00	1.08
BKD03-01	**>0.2%Cu**	194.30	213.75	19.45	0.69
	incl. >1.0%Cu	204.00	207.00	3.00	1.86
	>0.2%Cu	227.65	243.00	15.35	0.64
	incl. >1.0%Cu	240.00	243.00	3.00	1.14
	>0.2%Cu	260.45	274.22	13.77	1.40
	incl. >1.0%Cu	260.45	274.22	13.77	1.40
	>0.2%Cu	289.30	300.40	11.10	0.57
BKD03-02	**>0.2%Cu**	8.50	25.00	16.50	0.86
	incl. >1.0%Cu	17.50	22.50	5.00	1.42
KBK-0021	**>0.2%Cu**	37.00	61.00	24.00	0.69
	incl. >1.0%Cu	55.00	59.00	4.00	1.25
	>0.2%Cu	155.20	173.20	18.00	0.62
	incl. >1.0%Cu	161.20	165.20	4.00	1.24
	incl. >1.0%Cu	179.20	182.30	3.10	1.61
KBK-0023	**>0.2%Cu**	33.00	45.00	12.00	0.32
	>0.2%Cu	70.00	82.00	12.00	0.41
	>0.2%Cu	138.00	148.00	10.00	0.47
	>0.2%Cu	250.00	256.00	6.00	0.89
KBK-0024	**>0.2%Cu**	102.00	124.00	22.00	0.69
	>0.2%Cu	130.00	136.00	6.00	0.33
KBK-0028	**>0.2%Cu**	11.50	29.00	17.50	0.60

Drill Intercepts >6m and >0.2%Cu not domained and not adjacent to modelled domains					
Hole	**Intercept**	**From**	**To**	**Interval**	**Cu(%)**
BK036	**>0.2%Cu**	6.10	60.10	54.00	0.42
	>0.2%Cu	123.10	129.10	6.00	0.40
BK041	**>0.2%Cu**	111.40	117.40	6.00	0.96
BK044-02	**>0.2%Cu**	107.30	113.30	6.00	0.22
	>0.2%Cu	182.30	188.30	6.00	0.36
BK047	**>0.2%Cu**	108.30	114.30	6.00	0.40
	>0.2%Cu	162.30	168.30	6.00	1.00
BK048	**>0.2%Cu**	178.00	190.00	12.00	0.27
	>0.2%Cu	271.00	277.00	6.00	0.79
BK049	**>0.2%Cu**	274.00	280.00	6.00	0.45
BK050	**>0.2%Cu**	203.30	209.30	6.00	0.43
BK051	**>0.2%Cu**	83.60	95.60	12.00	0.25
	>0.2%Cu	188.60	194.60	6.00	0.28
BK052	**>0.2%Cu**	91.30	103.30	12.00	0.28
	>0.2%Cu	193.30	199.30	6.00	0.28
BK055	**>0.2%Cu**	194.00	200.00	6.00	1.05
BK056	**>0.2%Cu**	47.70	53.70	6.00	0.33
	>0.2%Cu	155.70	161.70	6.00	0.53
BK058	**>0.2%Cu**	56.70	62.70	6.00	0.28
	>0.2%Cu	104.70	125.70	21.00	0.50
BK-1	**>0.2%Cu**	*111.50*	117.50	6.00	0.31
BK-11	**>0.2%Cu**	0.00	6.00	6.00	1.97
	incl. >1.0%Cu	0.00	6.00	6.00	1.97
	>0.2%Cu	99.00	114.00	15.00	0.32
BK-12	**>0.2%Cu**	43.10	49.10	6.00	1.13
BK-15	**>0.2%Cu**	6.00	42.00	36.00	0.55
BK-18	**>0.2%Cu**	89.80	119.80	30.00	0.31
BK-5	**>0.2%Cu**	99.00	105.00	6.00	1.89
BKD01-01	**>0.2%Cu**	311.40	320.40	9.00	0.25
BKD02-01	**>0.2%Cu**	204.00	213.00	9.00	0.51
BKD02-02	**>0.2%Cu**	202.00	214.00	12.00	0.49
BKD03-02	**>0.2%Cu**	181.00	187.00	6.00	0.30
	>0.2%Cu	379.00	385.00	6.00	0.62
BKD04-01	**>0.2%Cu**	430.80	436.80	6.00	0.33
	>0.2%Cu	607.80	613.80	6.00	0.26
BKZ-3	**>0.2%Cu**	95.95	105.95	10.00	0.49
KBK-0023	**>0.2%Cu**	178.00	184.00	6.00	0.26
	>0.2%Cu	250.00	256.00	6.00	0.89
KBK-0024	**>0.2%Cu**	102.00	126.00	24.00	0.64
KBK-0025	**>0.2%Cu**	111.00	117.00	6.00	0.52
KBK-0026	**>0.2%Cu**	6.00	12.00	6.00	0.26
KBK-0028	**>0.2%Cu**	12.00	27.00	15.00	0.66
	>0.2%Cu	57.00	63.00	6.00	0.20
LZ02-01	**>0.2%Cu**	89.40	95.40	6.00	0.58

Appendix 8 H&A site visit report

Report on H&A Site Trip 2nd to 3rd September 2014

Duncan Hackman of H&A undertook a site visit to Beruang Kanan as required to be conducted by the Qualified Person responsible for work reported under the auspices of the Canadian National Instrument 43-101.

The primary reason for visiting the prospect and core shed was to locate and confirm evidence of exploration activities reported by KSK and their JV partners and to observe and confirm copper mineralisation in core and outcrop.

H&A did not uncover any reason to question the exploration activities undertaken in exploring and evaluating the Beruang Kanan prospect nor to question the presence of copper mineralisation of the tenor and styles reported by KSK.

Key observations and comments from this visit are:

Beruang Kanan Site

Access

- Access to BKM is logistically simple. Flights to Palangkaraya are readily available and arrive early enough in the morning to make site by mid-afternoon.
- Road access is good, being sealed for ~200km and then unsealed for a further ~130km north of Bangan Munggu along a well-maintained logging road that passes immediately north of the prospect.
- The trip can be made comfortably within 7hours.

Site camp

- Site camp comprises of six main wood buildings, now stripped of planks and boarding.
- The wood is still structurally sound, however this may not be the case for long as there are signs of rotting and insect attack.

Geological, Mineralisation and Operation Observations

- Main traverse from camp to the west up main ridge to top helipad then over western side into "Acid Creek" and return. Two subordinate traverses to the south of the ridge into area around and west of drillhole BK-08.
- Evidence of exploration activities:
    - 6 drill hole collars located and four of these checked by GPS to confirm their recorded coordinates. Checked holes:
        - BK-8 (drilled westerly at ~-65degrees):

        - 9932307N; 769011E (within 8m of Data Base record)
    - BK044 (drilled westerly at ~-60degees):
        - 9932344N; 768948E (within 6m of Data Base record)
    - BK030 (drilled westerly at ~-60degees):
        - 9932342N; 768782E (within 4m of Data Base record)
    - BK-14 (drilled westerly at ~-65degees):
        - 9932334N; 768413E (within 7m of Data Base record)
- The collar records for these holes are considered to be of sufficient accuracy for any resources on which they are based to be considered for Inferred Classification under the Canadian NI 43-101.
    - Drillers supply building at lower helipad shows worn and discarded drilling equipment, a white board with operational and hole drilling notes.
    - Drill pads and sites show ample evidence of drilling activity.
    - Discarded drilling supplies observed at pads and at laydown spots along walk trails
    - Hand-dug wide cuttings through steep ridge crest at top of main ridge created to assist in man-portable rig shifts.
    - Numerous hand held core saw channel cuts observed in creek outcrop
    - Seedling planter packs observed at laydown site on main track.
- Original geological lithologies are difficult to determine in the highly altered and weathered outcrop. Fine grained tuffs and felsic crystal tuffs were observed.
- No copper mineralisation or oxidised/weathered evidence of primary copper mineralisation was observed. This is not unexpected given the tenor of mineralisation at the prospect, the high rainfall in the area and acidity of the water draining the project area. H&A would expect that any Cu mineralisation would be readily attacked by the acid waters and carried in solution from the prospect. Precipitation of Cu from solution would require a suitable geochemical trap and/or sufficient mixing of stream water to reduce its acidity, initiating the precipitation of copper oxides at some distance from the prospect.
- Massive and disseminated pyrite, silica pyrite flooding/alteration and quartz pyrite veining were the only styles of alteration observed. Significant acid leaching and oxidation of pyrite observed. Acid leaching of outcrop prevalent and FeO staining ubiquitous.

Photos:

Photo 1: Massive pyrite and silica alteration to the west of BK035. Similar to alteration observed in drill core.

Photo 2: Seedling planter containers for reforestation of disturbed ground.

Photo 3: Drill pad and preserved collar for hole BK035.

Photo 4: Quartz vein with cast following leaching of pyrite. Association and texture similar to veins observed in core.

Photo 5: Channel sampling in gully outcrop.

Core Yard

The following holes were viewed at the KSK Tangkiling core treatment and storage facility:

- BK057, BK058, BK032, BK046, BK044-1, BK044-2, BK029
- Mineralisation was observed in all holes
- Extensive Cu weathering product(s) (possibly brochantite) were noted coating fractures, veins and other original Cu mineralisation locations.
- Mineralisation is hypogene and mid to late stage wrt alteration and veining
- Mineralisation consists primarily of covellite/chalcocite overprinting (disease) of silica-vein and fracture hosted pyrite.
- Two main settings of mineralisation observed:
    - Veining, fracture fill and milled fragments within sheared, milled foliated super-saturated shear zone
    - Veining and fracture fill within veined and blocky tuffs
- Key Observations are tabulated below:

Mineralisation Setting	HOLE	From	To	Lithology	Alteration	Major Minerals	Vein Minerals	Structure	Core Observations	Plate No.
thrust/Shear	BK029-01	10	16.9	Volcanic Breccia	silicified argillic	Pyrite		crushed gouged	at 15m - covellite disease of fine py peripheral to massve py section of si-py vein in altered volc	1
	BK029-01	22.8	28.4	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz py cl	crushed gouged	covellite occupies open space fill location	
	BK029-01	36.3	39.7	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz py cl	crushed fractured	hypogene covellite with bleby py overprint - some covellite desease of py too	2
	BK029-01	39.7	44.1	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz py cl	crushed fractured	gouge lineation/foliation ~90 to core axis	
	BK029-01	52.5	56.1	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz py cl	fractured	green staining of massive py vein in qz. Advanced argillic alt is strongly breccieated/foliated/faulted.	
	BK029-01	76.35	80.7	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz py cl	fractured	Covellite/Chacocite diseased py along edge of py shear veinlet	
	BK029-01	85.05	89.35	Volcanic Breccia	silicified argillic	Pyrite Covellite	qz gp py cv cp	fractured	at 90m true disease of py by covellite - late gypsum veinlet	3
	BK032-01	11.05	15	Tuff	silicified argillic	Pyrite Chalcocite	qz py cv cc gp cp	fractured	foliated sheared - techtonic brecciated intenslely altered - py has v v weak rimming of ??chalcocite	
	BK032-01	25.5	29.35	Tuff	silicified argillic	Pyrite Chalcocite	qz py cv cc gp cp	blocky brecciated	shear banded	4
blocky/crack-seal veins	BK044-01	10.3	13.75	Lapilli Tuff	silicified argillic	Pyrite Covellite	py qz cv cp	fractured	Covellite in irregular fracures and vein plus minus qz	5
	BK044-01	52.65	57.05	Tuff	silicified argillic	Pyrite Covellite	py qz cv cp	fractured	massive py component in qz vn.	
	BK044-01	57.05	61.5	Tuff	silicified argillic	Pyrite Covellite	py qz cv cl cp	blocky veined	cu staining of pyrite - high fluid veins - qz has diffuse replacement contacts with ?tuff	
	BK044-02	16.9	20.4	Tuff	silicified	Pyrite Covellite	py qz cv	fractured veined	py and cu in fracture veins and veinlets - crack-seal veins- 2 phases of veining evident	
	BK046-01	22	25.3	Lapilli Tuff	silicified	Pyrite Chalcopyrite	py qz cp cv	fractured veined	anastomosing sructual veins	
	BK046-01	29.9	34.3	Lapilli Tuff	silicified argillic	Pyrite Chalcopyrite	py qz cp cv	fractured veined	multi injected vein - si-py	
	BK046-01	34.3	38.7	Lapilli Tuff	silicified argillic	Pyrite Chalcopyrite	py qz cp cv	fractured veined	cu staining in veined py (low quartz/silica component)	
	BK046-01	47.25	51.6	Lapilli Tuff	silicified argillic	Pyrite Chalcopyrite	py qz cp cv	fractured veined	Covellite in py-qz veins - no cpy	

Core photos:

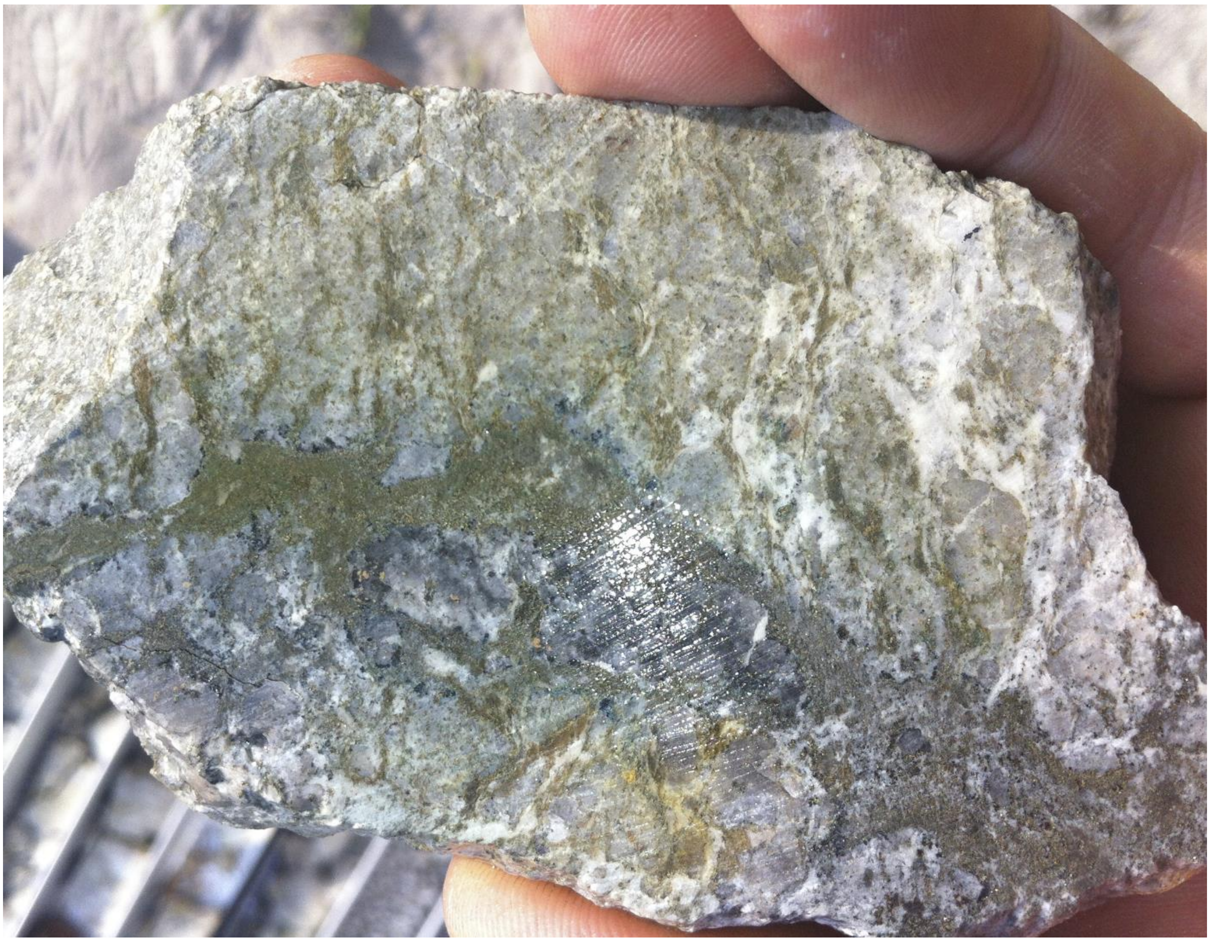


Plate 1: BK029, 15m – Covellite disease of fine pyrite along vein margins. Strongly sheared/milled and foliated silica-clay altered rock

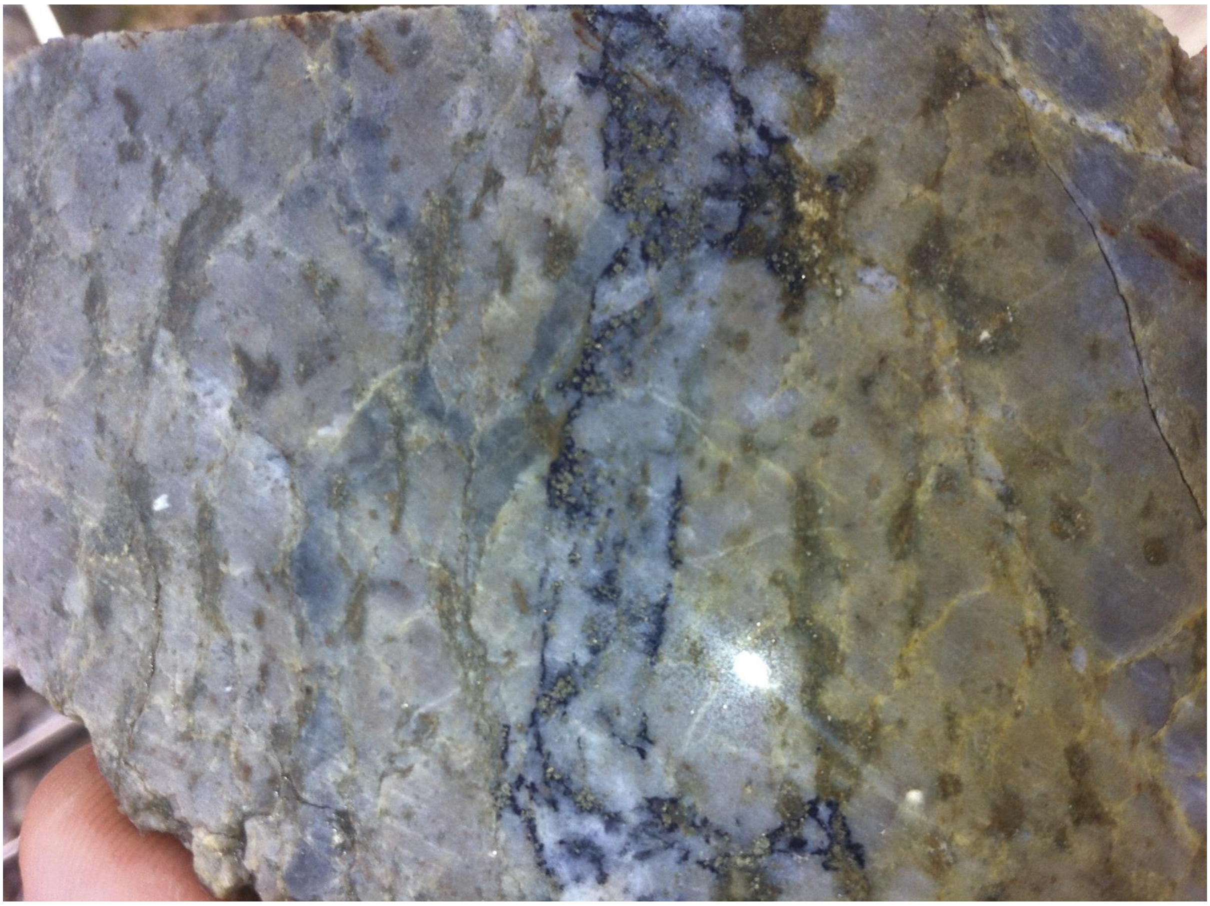


Plate 2: BK029, 39m – Covellite disease of fine pyrite along vein margins. A later blebby pyrite alteration event overprints covellite, evidence that Cu mineralisation replacing pyrite is from a hypogene event. Strongly sheared and foliated rock.

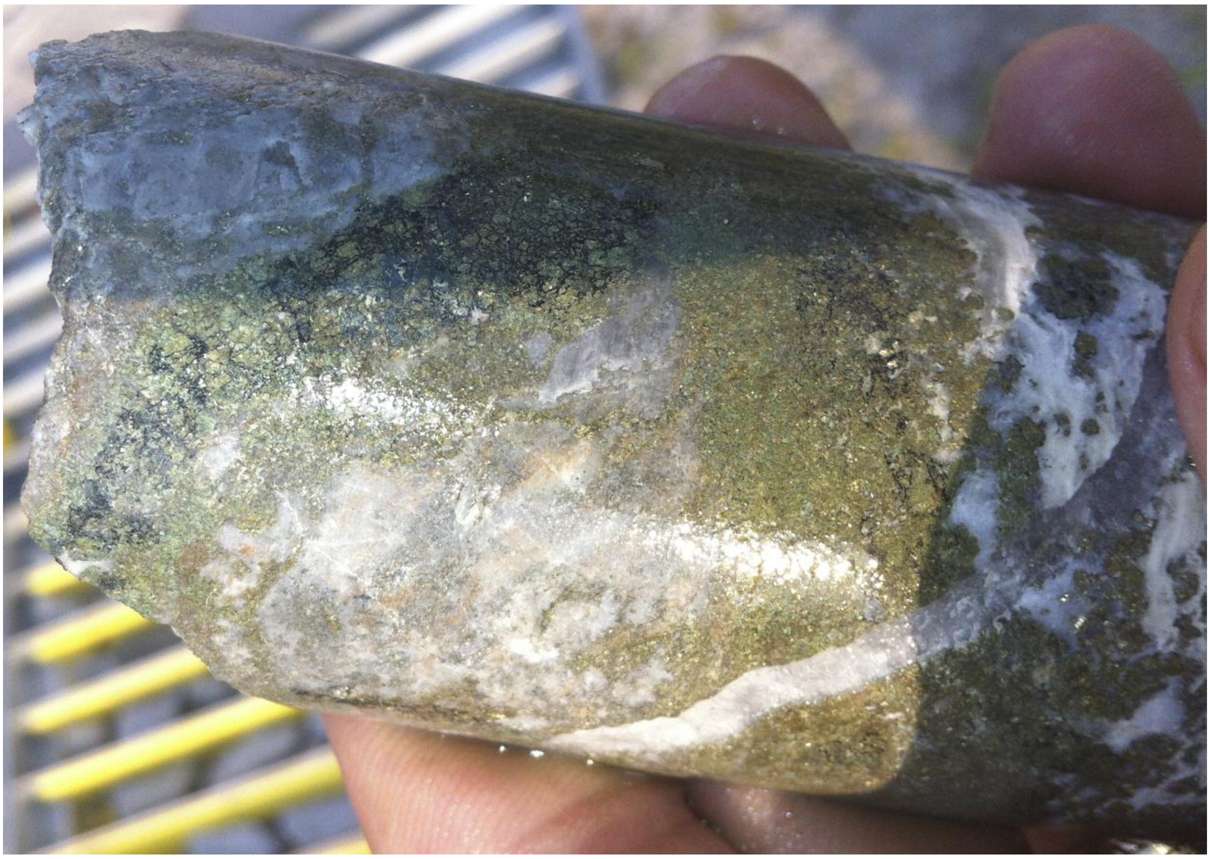


Plate 3: BK029, 90m – Covellite disease of massive pyrite.

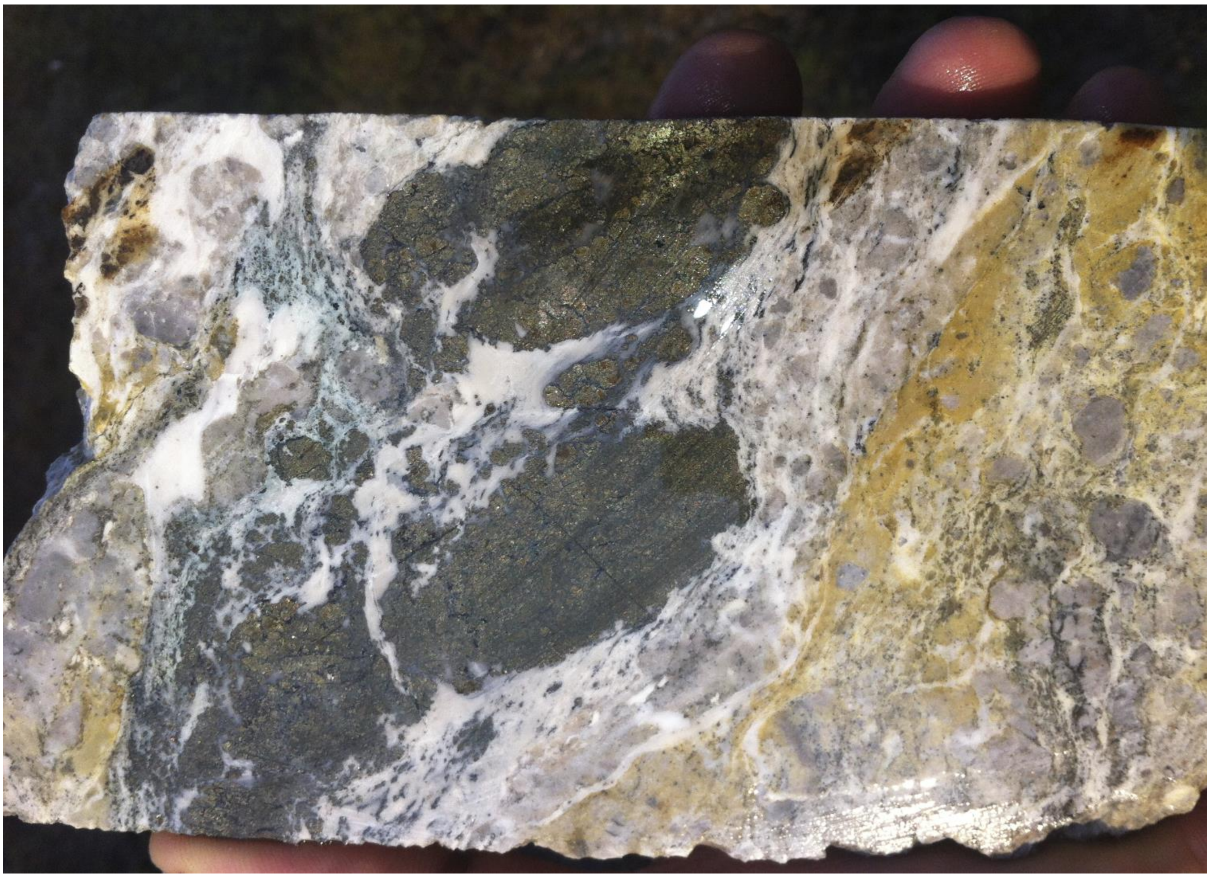


Plate 4: BK032, 29m – Fluid saturated shear/tectonic breccia. Milled Si fragments and exfoliating and sheared py. Cu staining observed with covellite diseased fine or milled py.

Plate 5: BK044-01, 3m – Cu mineralisation in fracture controlled pyrite veinlets and Si-Py veins. Significant secondary brochantite formed when core exposed to air.

Plate 6: BK058, 18m – secondary brochantite formed along late fractures in blocky core.

Plate 7: BK057, 19m – silica-covellite vein fragment within fault gouge material.

Report on H&A Site Trip 21st to 28th June 2015

BKM Site Protocols review:

Specific Gravity

1. Always check the tool used for weight measurement every morning by measuring the same item all the time. Check if the weight is always the same.
2. Make sure water level in the bucket is constant.
3. For drill core that is not absorbing water, SG dry and wet are assumed to be the same value and measurement can be completed at BKM camp. The volume of the sample then also can be obtained.
4. For drill core that is absorbing water such as clay, SG measurement for wet condition can be done at BKM camp. Then that sample will be sent to Intertek to be dried.
5. To prove that SG dry and SG wet for non-porous rock are the same, a test need to be conducted:
   - Choose around 5-7 drill core of varied (non-porous) lithology
   - Soak them in the water for 3 days to get saturated
   - Put them in the oven and measure their weight every hours
   - If after 4-5 measurements the weight is stable, the test is succeed
6. For SG sample sent to Intertek, write calico number on SG sample bag where the SG sample put into. Example: SGK00287 / 121007
   -

Down-hole survey interval

1. Down-hole survey is done at 10.00 m, 30.00 m, 50.00 m, 70.00 m, and so on every 20.00m.

2. If the EOH is less than 10.00 m interval from last survey, then it is not necessary to do another survey.

Control for down-hole survey camera tool and compass.

1. Built a drill-hole replica at the camp using an one meter PVC pipe buried underground and secured with concrete.
2. Surveyor is requested to give an accurate azimuth and inclination of this replica.
3. Then down-hole survey tool must do reading every 2 days. Check if the reading is constant and also compare the result with the surveyor's. Record them on a table.
4. Check every compass used for drill site set up. By doing this, each compass reading deviation (if any) can be recognized by comparing to accurate azimuth/inclination done by surveyor.

Drilling and core logging

1. Do not wash the core at the drill site; it may wash away any minerals.
2. Mark unnatural break of drill core at the drill site.
3. During core logging, differentiate type/style of veins observed on each sampling interval. Vein logging will also include their mineral content, number, percentage, and a number of vein that have <20^{o} angle to core axis.

Sampling

1. **Try to keep mineralized interval sampled in one bag, separated to barren zone.**
2. **Put Blank Pulp, Blank Coarse, and Duplicate Sample on the mineralization zone.**
3. **Be careful when scooping sample on loose material, avoid contamination between samples.**

RQD

1. Geotechnician have to discuss with geologist for any observation they are not sure about.
2. On mineralization zone, geologist should make observation and give advice to geothechnician for internal core lost degree when is necessary.

Core Photo

1. Write azimuth and inclination of the drill hole on core photograph title board.
2. Upload wet full core photograph every night using drop box.

ITS Laboratory

Considerations and Divergence from Standard ITS Sample Preparation Procedures.

Duncan Hackman and Steven Hughes (DH, SH), accompanied by Robert Oliver (ITS) observed sample preparation and analytical charge weighing procedures on the 27th June 2015. DH and SH observed that the pulverizing setup was cluttered and that the sample rack and barren wash bin were not ideally located wrt the pulverizing workstations. DH and SH request that the work environment (layout) and physical-workflow be reviewed by ITS supervisors to better locate these items and workstation setup which will sure-up confidence in sample preparation quality assurance.

KSK requires the following actions to be incorporated into the ITS standard procedures for sample preparation.

- Only the Boyd Crusher to be used for reducing the samples to -2mm in size.
- Barren wash to be processed between each sample processed through the crusher and pulverizer.
- Flat bottomed and sided scoop to be used in collecting pulp from pulverized material. Ensure that the pulp pile is of even thickness (height) and that the scoop cuts entire pulp pile from top to bottom and edge to centre.
- Use pulp package that is capable of holding >>250g (eg 500g) and ensure that the 250g pulp material is not tightly packed into this satchel (allowing analytical charge to be selected from any portion of in the satchel).
- Both the -2mm and -75micron comminution test results to be reported with assay results.

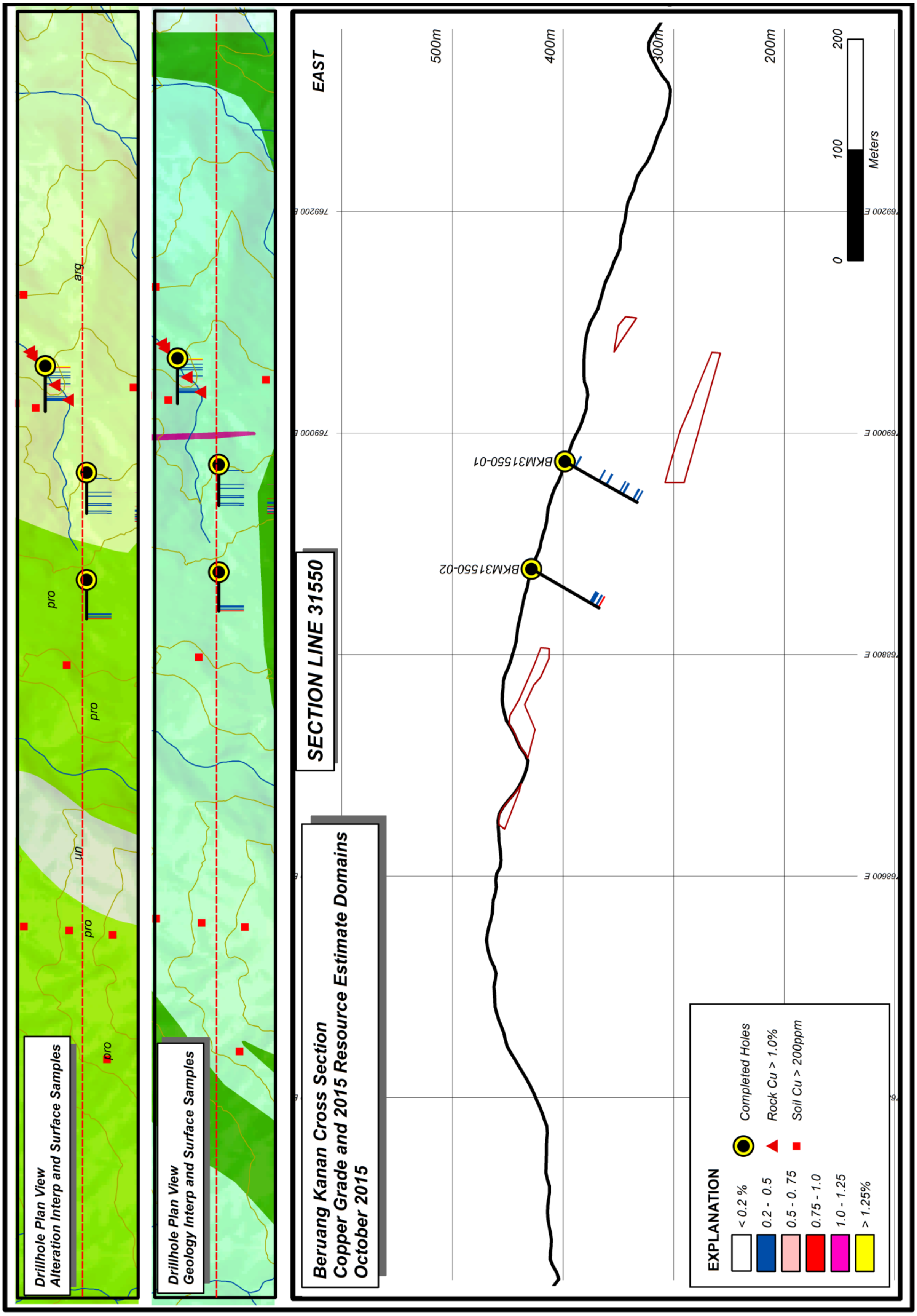
ANALYTICAL

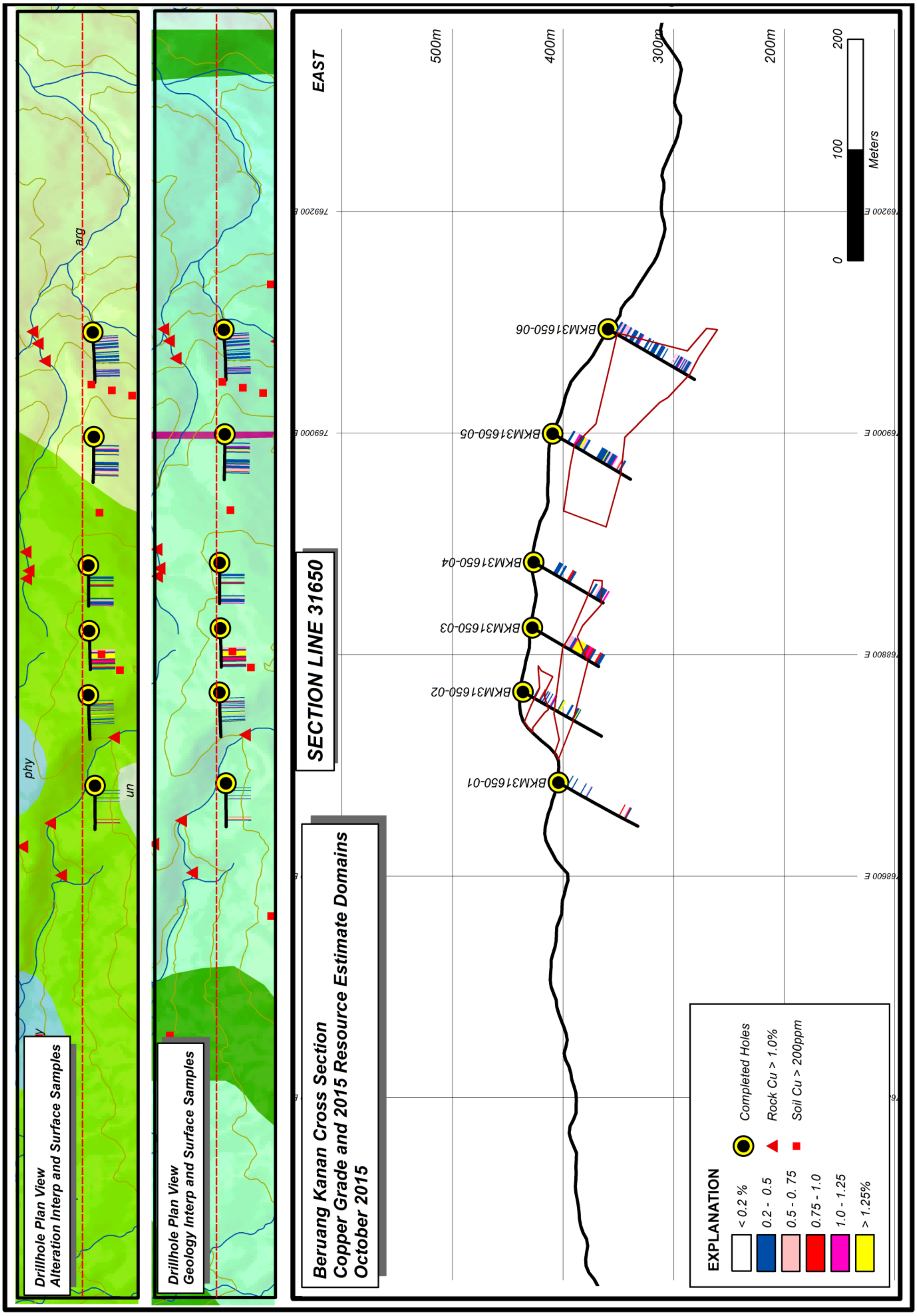
Element and method analytical techniques will be requested on sample dispatch advice forms. Any alteration or addition to the information on the dispatch forms must be approved by written (email) request/confirmation by Steven Hughes.

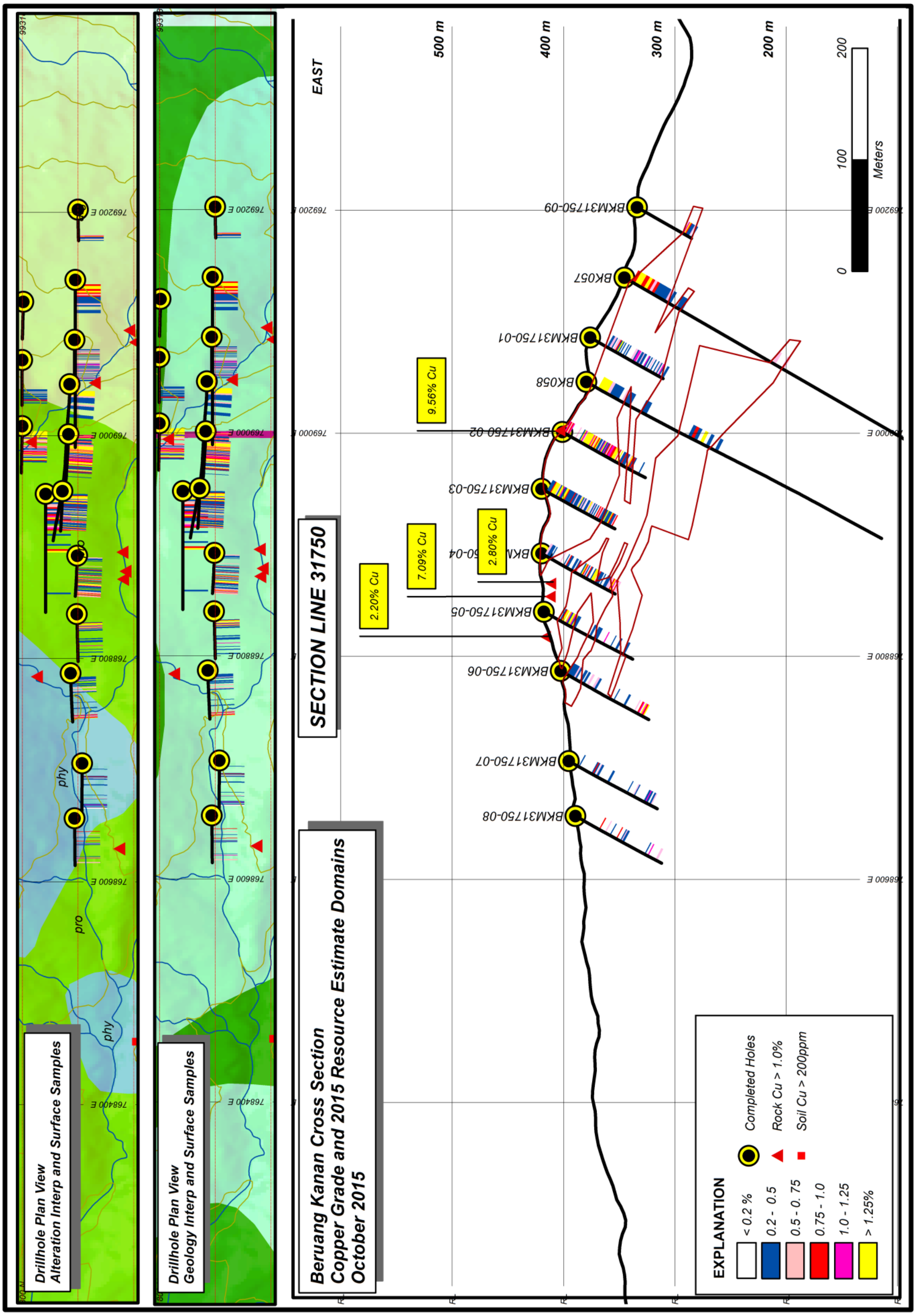
REPORTING

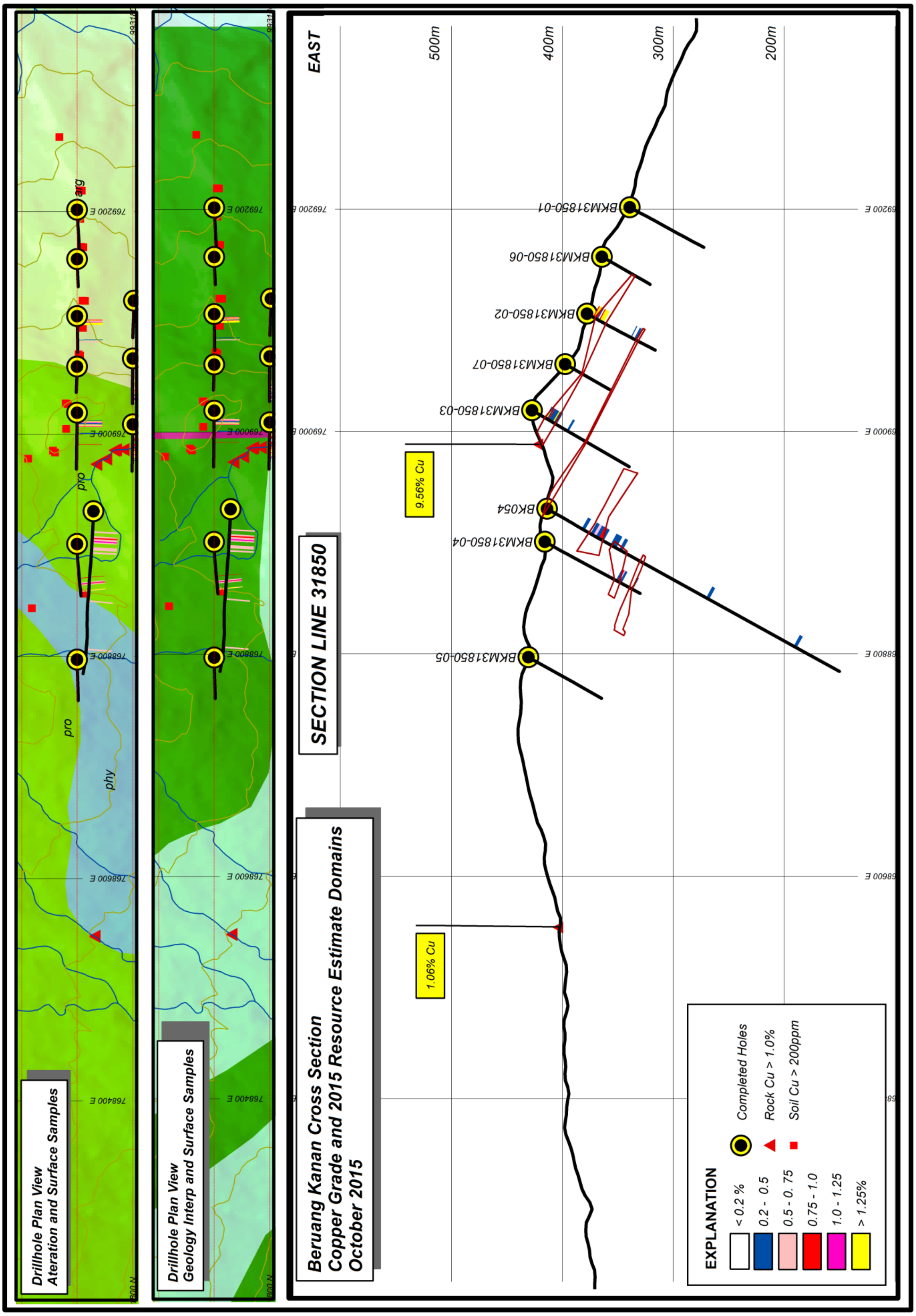
Digital SIF reports to include laboratory quality control assay results, -2mm and -75micron sizing results.

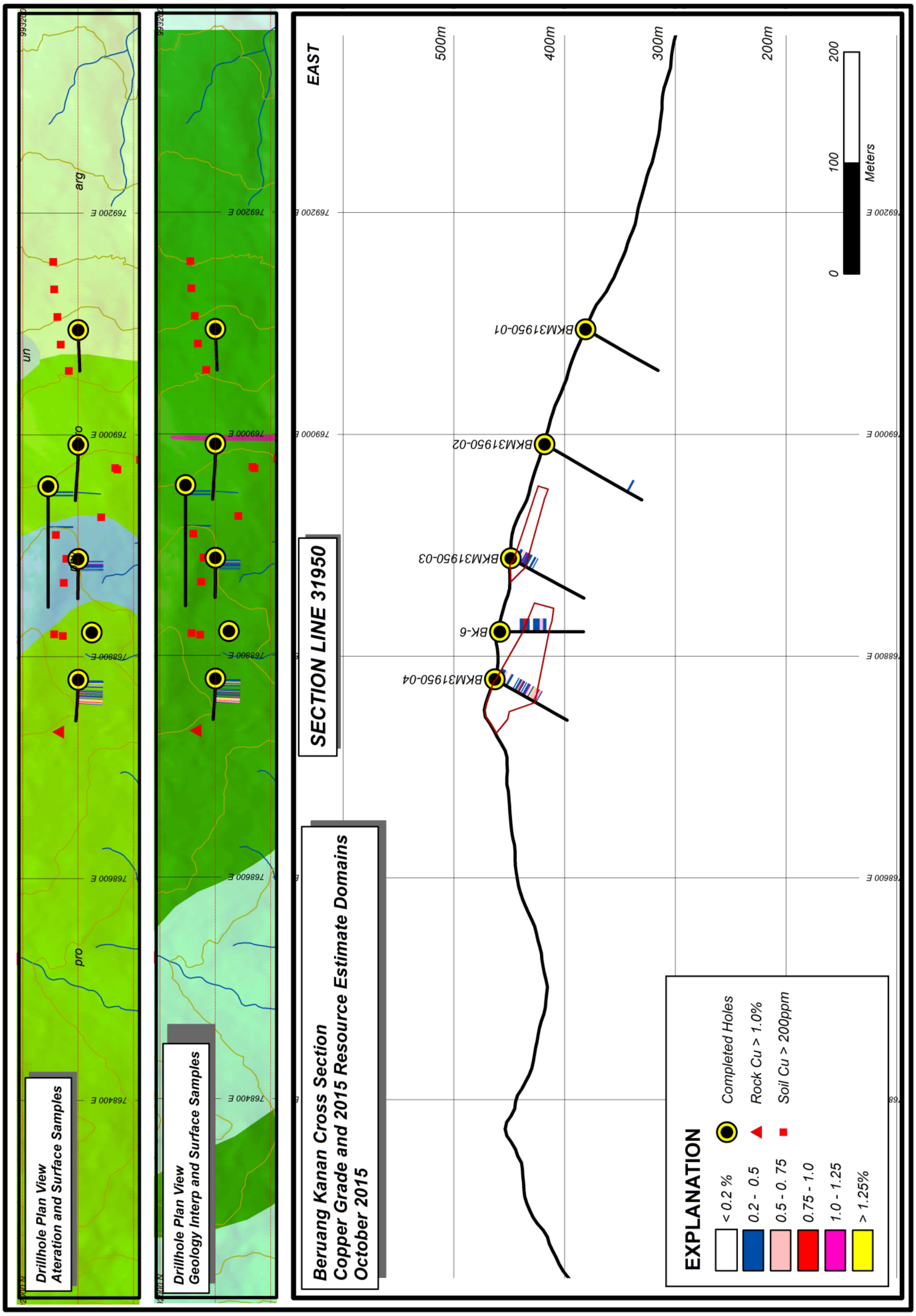
Appendix 9 Beruang Kanan Main Zone: Cross Sections

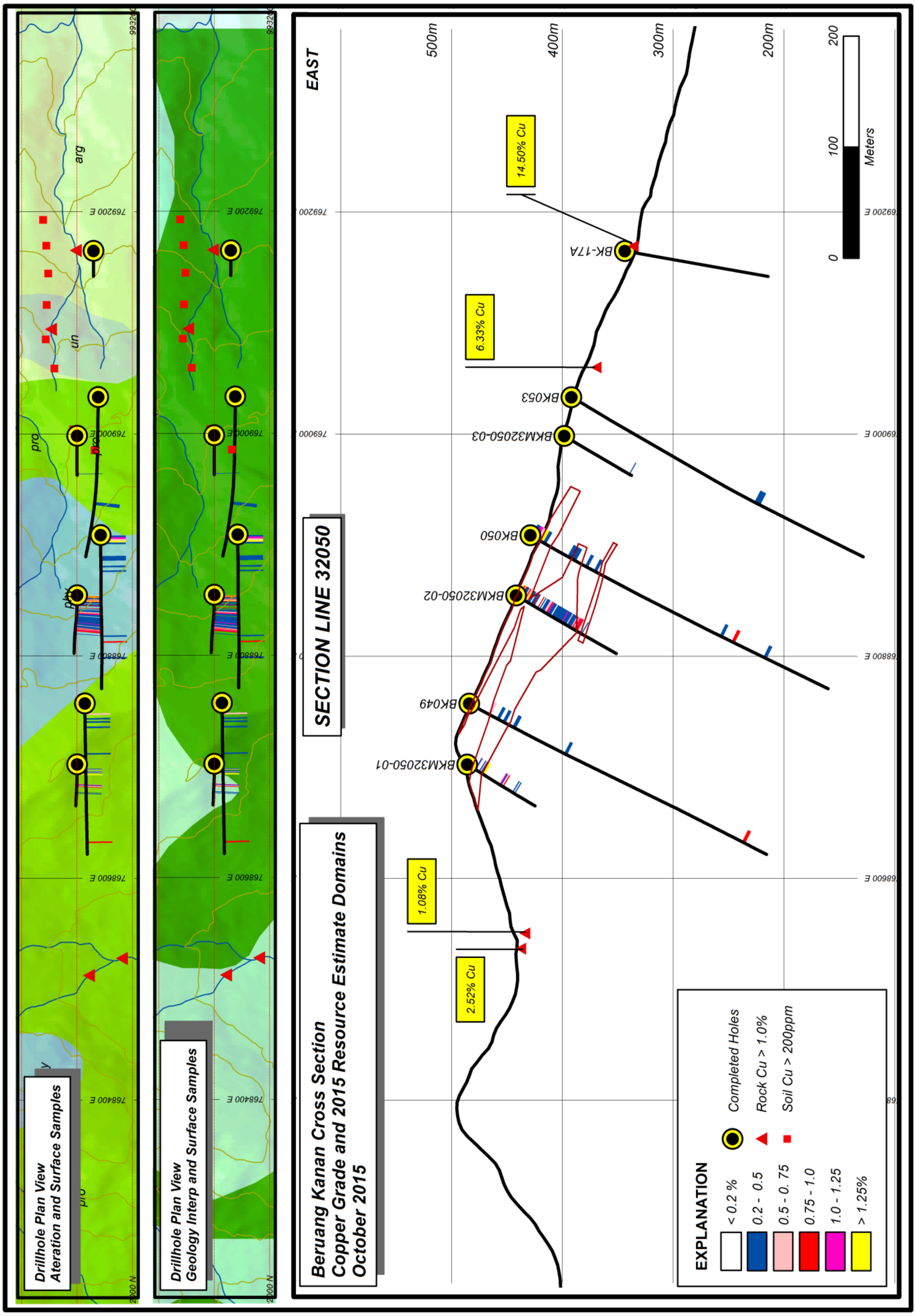


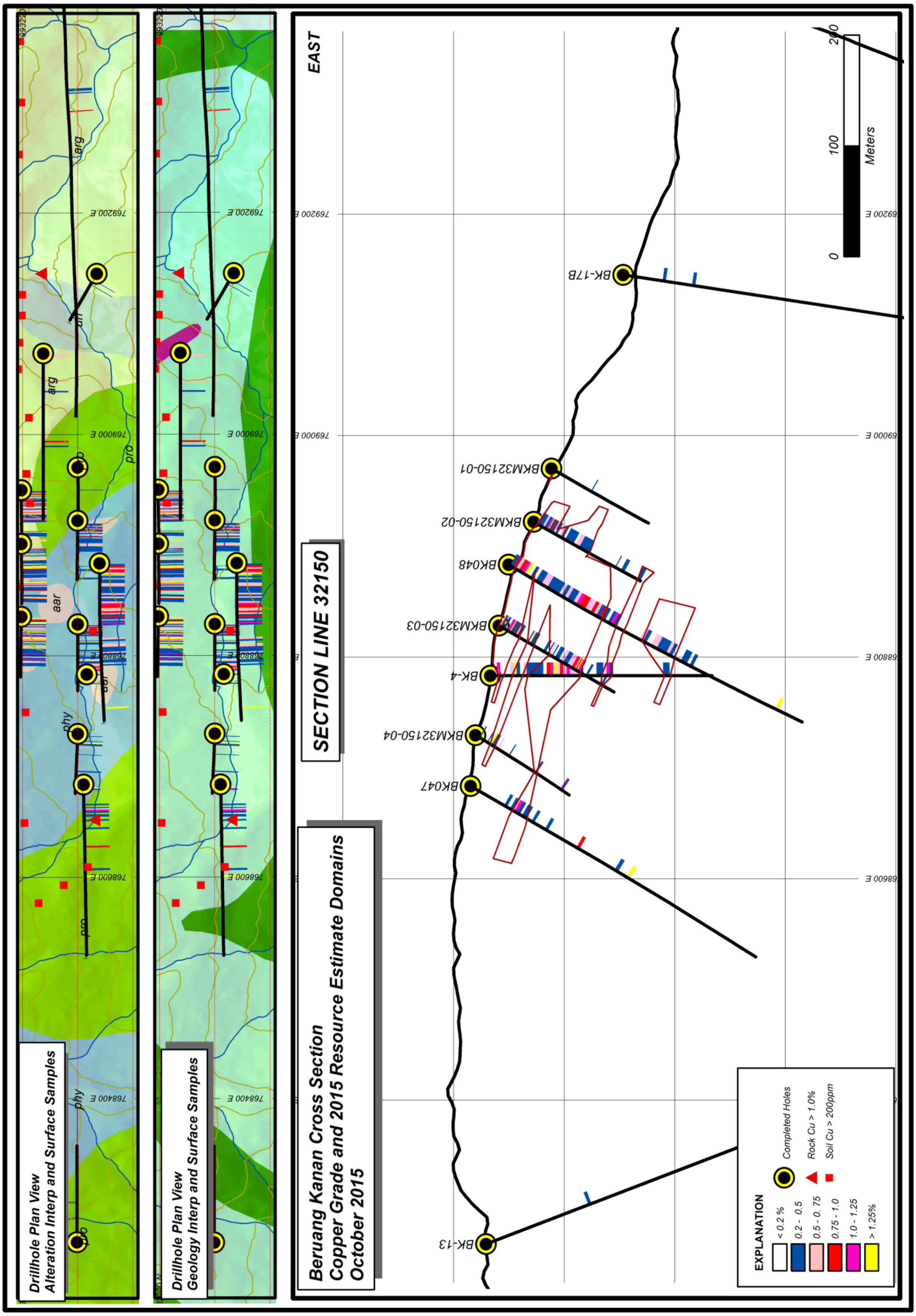

Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 31650
EAST
500m
400m
300m
200m
BKM31650-06
BKM31650-05
BKM31650-04
BKM31650-03
BKM31650-02
BKM31650-01
0
100
200
Meters
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0. 75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm

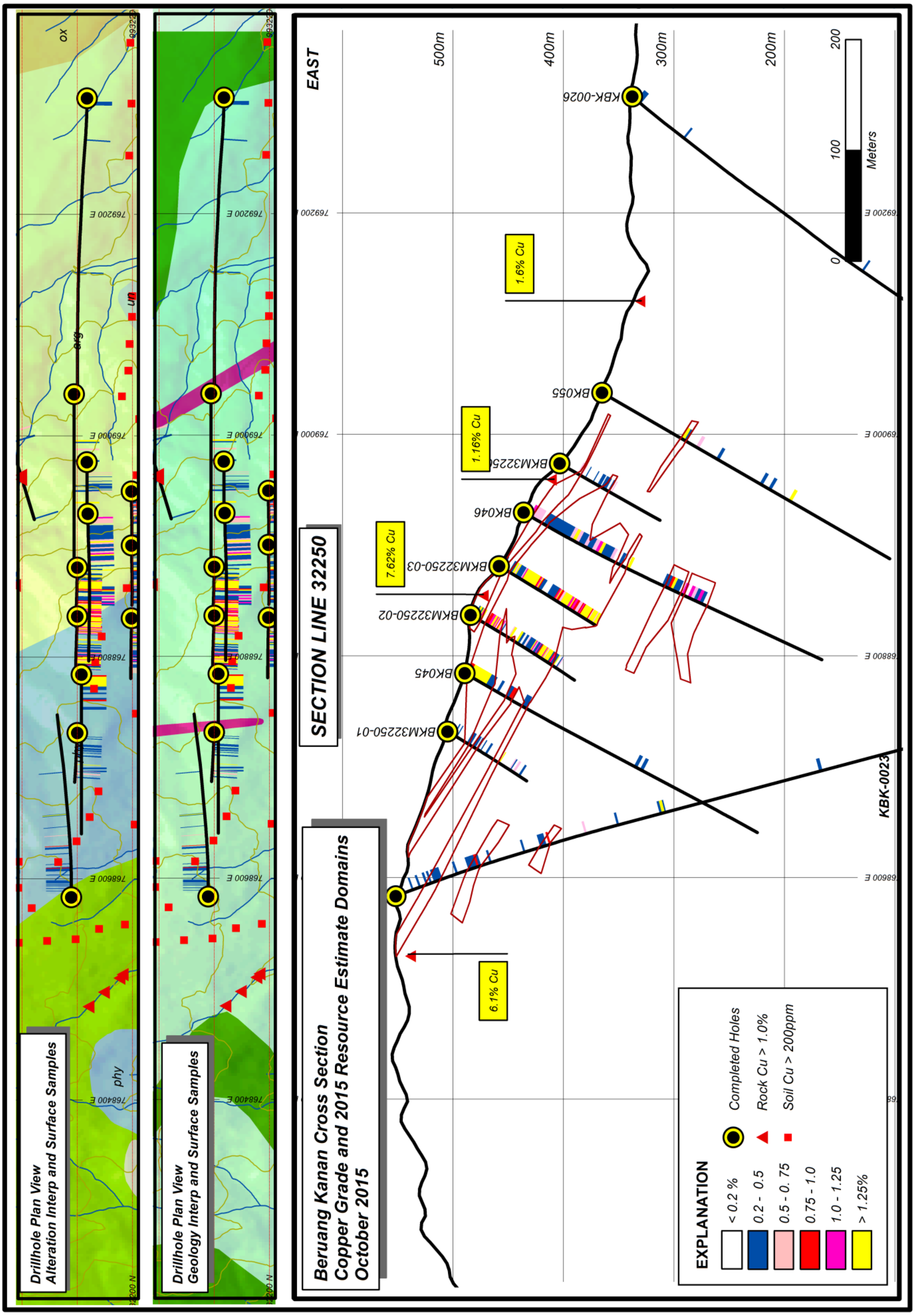

Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 31750
EAST
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
BKM31750-09
BK057
BKM31750-01
BK058
BKM31750-02
BKM31750-03
BKM31750-05
BKM31750-06
BKM31750-07
BKM31750-08
9.56% Cu
7.09% Cu
2.80% Cu
2.20% Cu
500 m
400 m
300 m
200 m
0
100
200
Meters
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm
phy
pro

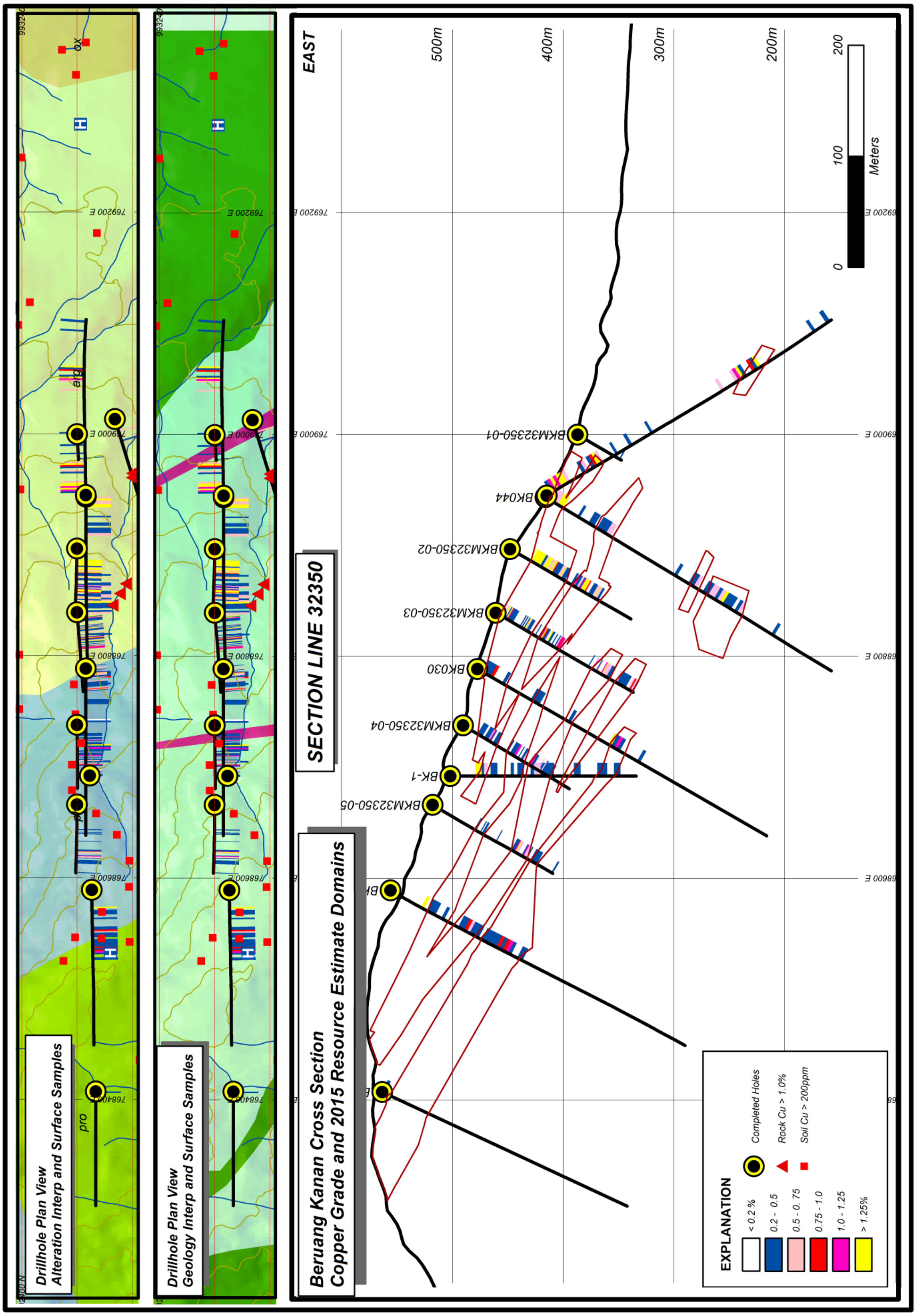

Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 31850
EAST
500m
400m
300m
200m
BKM31850-01
BKM31850-06
BKM31850-02
BKM31850-07
BKM31850-03
BK054
BKM31850-04
BKM31850-05
9.56% Cu
1.06% Cu
769200 E
769000 E
768800 E
768600 E
768400 E
Drillhole Plan View
Ateration and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
arg
pro
phy
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm

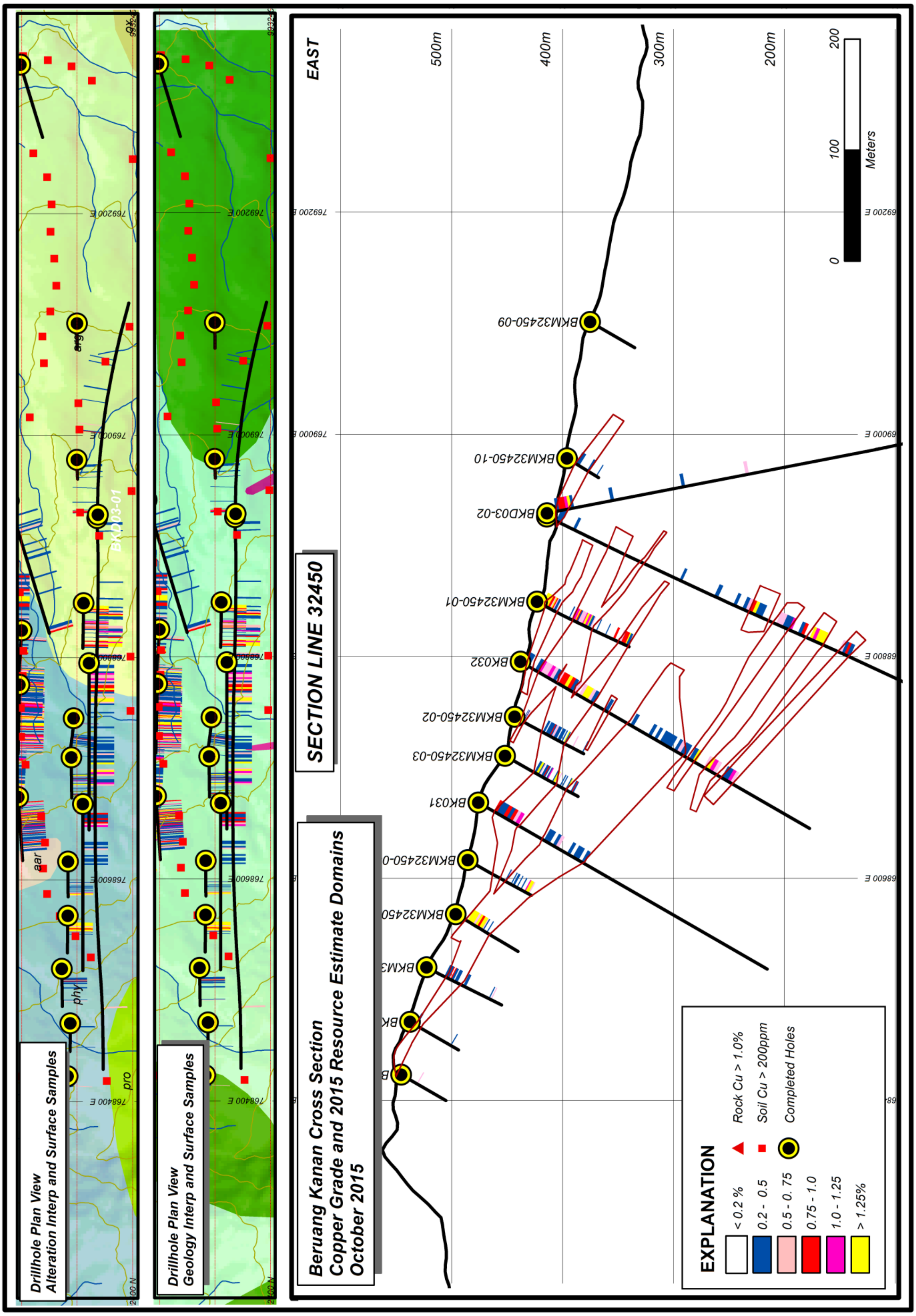

Drillhole Plan View
Ateration and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 31950
EAST
500m
400m
300m
200m
0
100
200
Meters
BKM31950-01
BKM31950-02
BKM31950-03
BK-6
BKM31950-04
769200 E
769000 E
768800 E
768600 E
768400 E
arg
un
pro
EXPLANATION
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm
< 0.2 %
0.2 - 0.5
0.5 - 0. 75
0.75 - 1.0
1.0 - 1.25
> 1.25%

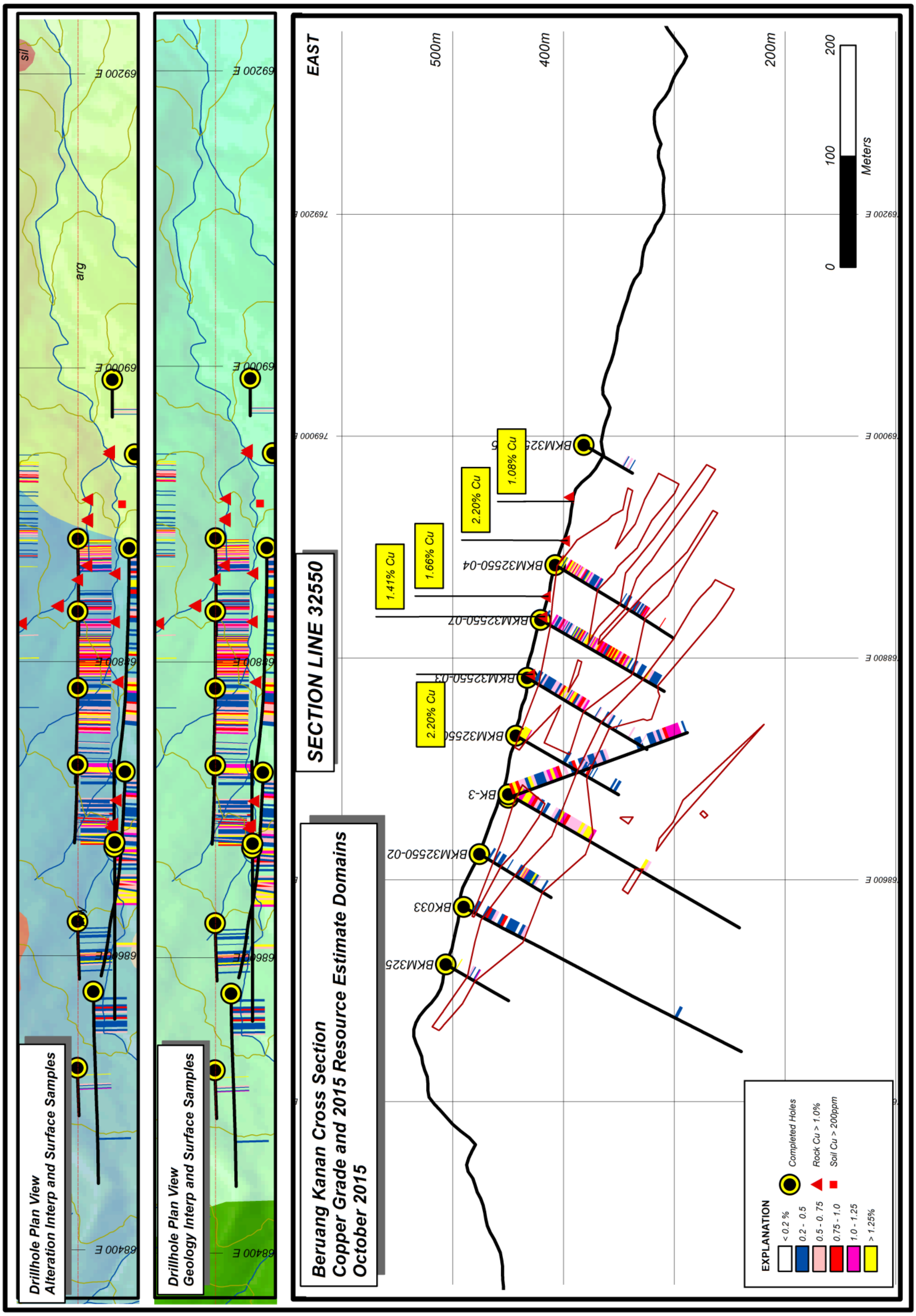

Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32050
EAST
Drillhole Plan View
Ateration and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
500m
400m
300m
200m
0
100
200
Meters
14.50% Cu
6.33% Cu
1.08% Cu
2.52% Cu
BK-17A
BK053
BKM32050-03
BK050
BKM32050-02
BK049
BKM32050-01
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm

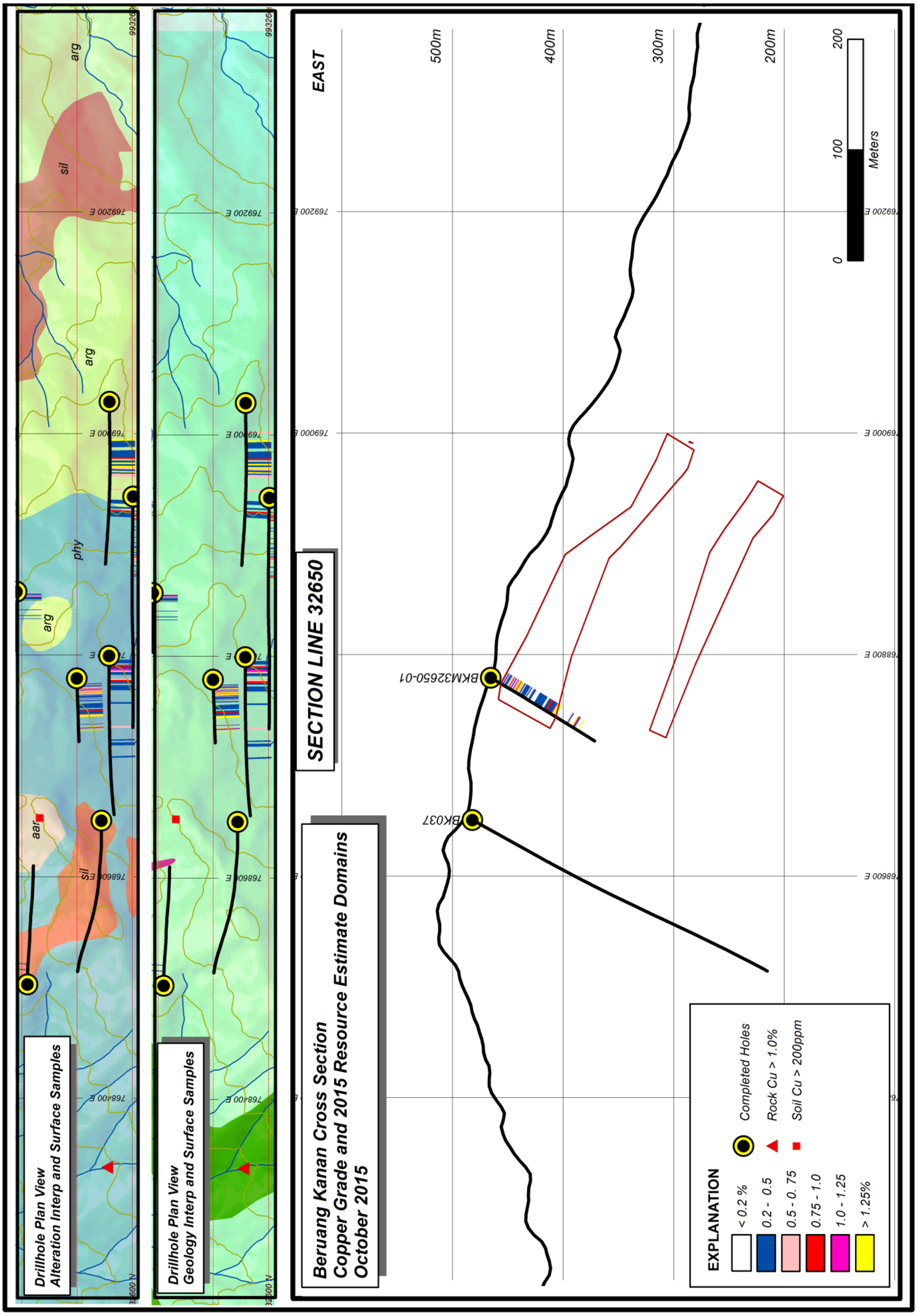

Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32150
EAST
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
BK-17B
BKM32150-01
BKM32150-02
BK048
BKM32150-03
BK-4
BKM32150-04
BK047
BK-13
769200 E
769000 E
768800 E
768600 E
768400 E
arg
pro
aar
phy
0
100
200
Meters
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm


Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32250
EAST
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
KBK-0026
BK055
BKM32250
BK046
BKM32250-03
BKM32250-02
BK045
BKM32250-01
KBK-0023
1.6% Cu
1.16% Cu
7.62% Cu
6.1% Cu
500m
400m
300m
200m
0
100
200
Meters
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm


Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
SECTION LINE 32350
EAST
500m
400m
300m
200m
0
100
200
Meters
BKM32350-01
BK044
BKM32350-02
BKM32350-03
BK030
BKM32350-04
BK-1
BKM32350-05
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm


Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32450
EAST
500m
400m
300m
200m
0
100
200
Meters
BKM32450-09
BKM32450-10
BKD03-02
BKM32450-01
BK032
BKM32450-02
BKM32450-03
BK031
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0. 75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Rock Cu > 1.0%
Soil Cu > 200ppm
Completed Holes


Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32550
EAST
500m
400m
200m
0
100
200
Meters
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
BKM32550-04
BKM32550-07
BKM32550-03
BKM32550-02
BK-3
BK033
BKM325
1.08% Cu
2.20% Cu
1.66% Cu
1.41% Cu
2.20% Cu
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0.75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm


Beruang Kanan Cross Section
Copper Grade and 2015 Resource Estimate Domains
October 2015
SECTION LINE 32650
EAST
500m
400m
300m
200m
BKM32650-01
BK037
0
100
200
Meters
EXPLANATION
< 0.2 %
0.2 - 0.5
0.5 - 0. 75
0.75 - 1.0
1.0 - 1.25
> 1.25%
Completed Holes
Rock Cu > 1.0%
Soil Cu > 200ppm
Drillhole Plan View
Alteration Interp and Surface Samples
Drillhole Plan View
Geology Interp and Surface Samples
arg
sil
phy
aar
769200 E
769000 E
768800 E
768600 E
768400 E

Appendix 10 KSK letters to Gov. of Republic of Indonesia RE: KSK Cow Status and Permits

Letter confirming tenure status of KSK CoW

II 2 2 47_DGoMC Letter_dated 28 October 2015_Reactivation of Exploration .pdf

MINISTRY OF ENERGY AND MINERAL RESOURCES
DIRECTORATE GENERAL OF MINERAL AND COAL
JALAN PROF. DR. SOEPOMO, SH NO.10 JAKARTA 12870
TELEPHONE: (021) 8307557 FAX: (021) 83785103 E-MAIL: djmb@minerba.esdm.go.id

No. : 1951/30/DJB/2015 28 October 2015
Appendix : 1 (one) document
Subject : Reactivation
PT. Kalimantan Surya Kencana (PT. KSK)

To:
Directors of PT. Kalimantan Surya Kencana (PT. KSK)
Jl. Rajawali VII, Srikandi III, No. 100
Palangkaraya 73112

To follow up your mail No. 1549/KSK/G-V/2015 dated May 4th, 2015 concerning the subject of this letter, please be informed the following

1. PT. KSK is a Contract of Work (KK) Generation VI company already signed the contract on April 28th, 1997 to exploit gold and associated minerals commodity. The Contract of Work (KK) area for PT. KSK covers 61,003 hectares, located in Gunung Mas and Murung Raya Regency, Province of Central Kalimantan and Katingan Regency, Province of West Kalimantan.
2. Head of Investment Coordinating Agency (BKPM) Decree No. 29/1/IPPKH/PMDN/2015 dated April 23rd, 2015, concerning on the Extension of Forest Lease Permit for for Gold and Associated Metals Exploration in limited production forest area and permanent production forest area for PT. KSK located in Gunung Mas Regency, Province of Central Kalimantan of 7,422 hectares.
3. Based on the result of the evaluation to your application documents, Contract of Work (KK) area for PT. KSK that can be reactivated for exploration activities will be limited to area of 7,422 hectares (seven thousand and four hundred twenty two) hectares.

Concerning the abovementioned points, the application to reactivate PT. KSK exploration activity for the fifth year has been approved for Contract of Work area of 7,422 hectares with the conditions that PT. KSK to produce financial report and fifth year exploration activity result reports to the Government periodically.

Thank you for your attention.

Director General of Minerals and Coals

[Signed and Sealed]

Ir. Bambang Gatot Ariyono, MM
NIP. 19600409 198903 1 001

Carbon copy:
1. Minister of Energy and Mineral Resources
2. Secretary General Ministry of Energy and Mineral Resources
3. Governor of Central Kalimantan
4. Governor of West Kalimantan
5. Regent of Murung Raya
6. Regent of Gunung Mas
7. Regent of Katingan
8. Head of Mineral and Coal Business
9. Director of Mineral and Coal Engineering and Environment
10. Head of Department of Mines and Energy of Central Kalimantan
11. Head of Department of Mines and Energy of West Kalimantan
12. Head of Department of Mines and Energy of Murung Raya Regency
13. Head of Department of Mines and Energy of Katingan Regency
14. Head of Department of Mines and Energy of Gunung Mas Regency

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Letter stating renewal of IPPKH permit

INVESTMENT COORDINATING BOARD

DECREE OF THE CHAIRMAN OF INVESTMENT COORDINATING BOARD

NUMBER: 29/1/IPPKH/PMDN/2015

REGARDING

THE EXTENSION OF FOREST AREA BORROW-USE PERMIT FOR EXPLORATION OF GOLD AND ITS ASSOCIATED MINERALS IN THE LIMITED AND PERMANENT PRODUCTION FOREST AREAS IN THE NAME OF PT KALIMANTAN SURYA KENCANA IN GUNUNG MAS REGENCY, CENTRAL KALIMANTAN PROVINCE, COVERING AN AREA OF 7,422 (SEVEN THOUSAND FOUR HUNDRED TWENTY TWO) HECTARES.

THE CHAIRMAN OF INVESTMENT COORDINATING BOARD

Considering :

a. whereas based on the Decree of the Minister of Forestry Number SK.134/Menhut-II/2012 dated 12 March 2012, PT Kalimantan Surya Kencana has been granted a forest area borrow-use permit for exploration of gold and its associated minerals covering an area of 7,422 (seven thousand four hundred twenty two) hectares in the limited and permanent production forest areas in Gunung Mas Regency, Central Kalimantan Province for a period up to 12 March 2014;

b. whereas the President Director of PT Kalimantan Surya Kencana in accordance with the letter Number 1219/KSK/G-XII/2013 dated 2 December 2013 has filed an application for the extension of forest area borrow-use permit for exploration activities pursuant to the Decree of the Minister of Forestry Number SK.134/Menhut-II/2012 dated 12 March 2012 in Gunung Mas Regency, Central Kalimantan Province;

c. whereas the Head of Forestry Regency of Central Kalimantan Province with the letter Number 522.1.100/1510/Dishut dated 21 July 2014 has submitted the Report on the Evaluation Result of Forest Utilization Permit for Exploration of Gold and Its Associated Minerals in the name of PT. Kalimantan Surya Kencana in Gunung Mas Regency, Central Kalimantan

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Province dated June 2014 and Certificate of Evaluation dated 26 June 2014, recommending that the extension of forest area borrow-use permit can be considered/processed further;

d. whereas pursuant to the letter of the Director General of Forestry Planology Number S.293/VII-PKH/2015 dated 24 March 2015:

d.1. The application for the extension of forest area borrow-use permit for exploration of gold and its associated minerals in the name of PT. Kalimantan Surya Kencana can be considered for an area of 7,422 (seven thousand four hundred twenty two) hectares, including 6,347 (six thousand three hundred forty seven) hectares in the Limited Forest Area and 1,075 (one thousand seventy five) hectares in the Permanent Production Forest Area, encumbered by the License for Utilization of Timber in Natural Forest (IUPHHK-HA) of PT Hutan Domas Raya covering an area of 6,875 (six thousand eight hundred seventy five) hectares, IUPHHK-HA of PT Carus Indonesia covering an area of 322 (three hundred twenty two) hectares, and unencumbered by IUPHHK-HA/HT of 225 (two hundred twenty five) hectares;

d.2. Based on the Instruction of the President of the Republic of Indonesia Number 6 of 2013 in accordance with the Map attached to the Decree of the Director General of Forestry Planology on behalf of the Minister of Forestry Number SK.6982/Menhut-VII/IPSDH/2014, the area applied for by PT Kalimantan Surya Kencana does not overlap the area indicated as primary forest or peatland, so that it is not included in the location for which a new permit is postponed;

e. whereas pursuant to Article 41 paragraph (1) of the Regulation of the Minister of Forestry Number P.16/Menhut-II/2014 regarding the Forest Area Borrow-Use Guidelines, the extension of the forest area borrow-use permit can be granted by virtue of evaluation result of the fulfilment of obligations set forth therein;

f. whereas in view of letters a to e, PT Kalimantan Surya Kencana can be granted the extension of the forest area borrow-use permit for exploration of gold and its associated minerals in the limited and permanent production forest areas covering a total area of 7,422 (seven thousand four hundred twenty two) hectares in Gunung Mas Regency, Central Kalimantan Province, with a Decree of the Investment Coordinating Board.

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In view of :

1. Law Number 5 of 1990 regarding the Conservation of Biotic Resources and Ecosystem;
2. Law Number 41 of 1999 regarding the Forestry, as amended by the Law Number 19 of 2004;
3. Law Number 26 of 2007 regarding the Spatial Planning;
4. Law Number 18 of 2013 regarding the Prevention and Eradication of Forest Destruction;
5. Law Number 23 of 2014 regarding the Regional Government;
6. Law Number 44 of 2004 regarding the Forestry Planning;
7. Government Regulation Number 45 of 2004 regarding the Forest Protection, as amended by the Government Regulation Number 60 of 2009;
8. Government Regulation Number 6 of 2007 regarding the Forest Management and the Preparation of Forest Management and Exploitation Plan, as amended by the Government Regulation Number 3 of 2008;
9. Government Regulation Number 38 of 2007 regarding the Distribution of Governmental Affairs among the Central Government, Provincial Government and Regency/Municipal Government;
10. Government Regulation Number 26 of 2008 regarding the National Spatial Planning;
11. Government Regulation Number 76 of 2008 regarding the Forest Rehabilitation and Reclamation;
12. Government Regulation Number 10 of 2010 regarding the Procedure for the Change of Forest Area Designation and Function, as amended by the Government Regulation Number 60 of 2012;
13. Government Regulation Number 24 of 2010 regarding the Forest Utilization, as amended by the Government Regulation Number 61 of 2012;
14. Government Regulation Number 33 of 2014 regarding the Type and Tariff of State's Non-Tax Revenue Originating from the Forest Area Utilization for Development Purposes outside Forestry Activities Applicable within the Ministry of Forestry;
15. Presidential Instruction Number 6 of 2013 regarding the Postponement of New Concession Issuance and the

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MOCHAMAD HIKMAT GUMILAR
No. 1765/2006

Revision of Primary Natural Forest and Peatland Management;

16. Presidential Regulation Number 39 of 2014 regarding the List of Business Lines Closed and Conditionally Open to Investment;

17. Presidential Regulation Number 97 of 2014 regarding the Implementation of One Stop Services;

18. Presidential Decree Number 121/P of 2014 regarding the Establishment of Ministries and Appointment of Ministers within the Working Cabinet 2014 - 2019;

19. Presidential Regulation Number 135 of 2014 regarding the Seventh Amendment of the Presidential Regulation Number 24 of 2010 regarding the Capacities, Tasks and Functions of the State Ministries and the Organizational Structures, Tasks and Functions of Echelon I of the State Ministries;

20. Presidential Regulation Number 165 of 2014 regarding the Arrangement of Working Cabinet Tasks and Functions;

21. Presidential Regulation Number 7 of 2015 regarding the State Ministry Organization;

22. Presidential Regulation Number 16 of 2015 regarding the Ministry of Environment and Forestry;

23. Regulation of the Minister of Forestry Number P.56/Menhut-II/2008 regarding the Procedures for the Determination of Affected Area and Reclamation and Revegetation Areas for the Calculation of State's Non-Tax Revenue from Forest Utilization, as amended by the Regulation of the Minister of Forestry Number P.84/Menhut-II/2014;

24. Regulation of the Minister of Forestry Number P.60/Menhut-II/2009 regarding the Guidelines for the Assessment of Successful Forest Reclamation;

25. Regulation of the Minister of Forestry Number 91/PMK.02/2009 regarding the Procedures for the Imposition, Collection, and Deposit of State's Non-Tax Revenue Originating from Forest Utilization for Development Purposes outside Forestry Activities;

26. Regulation of the Minister of Forestry Number P.40/Menhut-II/2010 regarding the Organization and Work Procedure of the Ministry of Forestry, as amended

by the Regulation of the Minister of Forestry Number 13.33/Menhut-II/2012;

27. Regulation of the Minister of Forestry Number P.63/Menhut-II/2011 regarding the Planting Guidelines for the Holder of Forest Area Borrow-Use Permit in Light of Watershed Rehabilitation;

28. Regulation of the Minister of Forestry Number P.44/Menhut-II/2012 regarding the Forest Area Measurement, as amended by the Regulation of the Minister of Forestry Number 13.33/Menhut-II/2013;

29. Regulation of the Minister of Forestry Number P.16/Menhut-II/2014 regarding the Forest Borrow-Use Guidelines;

30. Regulation of the Minister of Forestry Number P.25/Menhut-II/2014 regarding the Forest Area Management Committee;

31. Regulation of the Minister of Forestry Number P.41/Menhut-II/2014 regarding the Administration of Wood Forest Products Originating from Natural Forests;

32. Regulation of the Minister of Forestry Number P.42/Menhut-II/2014 regarding the Administration of Wood Forest Products Originating from Plantation Forests within Production Forests;

33. Regulation of the Minister of Forestry Number P.52/Menhut-II/2014 regarding the Procedures for the Imposition, Collection, and Deposit of Forest Resource Provision and Reforestation Fund, Timber Replacement Fee and Compensation of Trees ;

34. Regulation of the Minister of Forestry Number P.62/Menhut-II/2014 regarding the Wood Exploitation Permit;

35. Regulation of the Minister of Environment and Forestry Number P.97/Menhut-II/2014 regarding the Delegation of Authority for the Issuance of Permits and Non-Permits in the Fields of Environment and Forestry in the Framework of One Stop Service Implementation to the Chairman of Investment Coordinating Board, as amended by the Regulation of the Minister of Environment and Forestry Number P.1/Menhut-II/2015;

36. Decree of the Director General of Forestry Planology on behalf of the Minister of Environment and Forestry Number SK.6982/Menhut-VII/IPSDH/2014 regarding the Determination of Indicative Map for the Postponement of the Issuance of New Permits for Forest

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Exploitation, Forest Area Utilization and Change of Forest Area Designation and Other Use Area (Revision VII).

With due observance of :

1. Contract of Work between the Government of the Republic of Indonesia and PT Kalimantan Surya Kencana dated 28 April 1997;
2. Decree of the Minister of Energy and Mineral Resources regarding the Fourth Relinquishment of the Contract of Work Area at Exploration Phase of PT Kalimantan Surya Kencana Number 511.K/30/DJB/2010 dated 6 December 2010;
3. Letter of the Head of Forestry Regency of Central Kalimantan Province with the letter Number 522.1.100/1510/Dishut dated 21 July 2014, reporting the Evaluation Result of Forest Utilization Permit for Exploration of Gold and Its Associated Minerals in the name of PT. Kalimantan Surya Kencana in Gunung Mas Regency, Central Kalimantan Province dated June 2014 and Certificate of Evaluation dated 26 June 2014.

HEREBY DECIDES:

To stipulate : **DECREE OF THE CHAIRMAN OF INVESTMENT COORDINATING BOARD REGARDING THE EXTENSION OF FOREST AREA BORROW-USE PERMIT FOR EXPLORATION OF GOLD AND ITS ASSOCIATED MINERALS IN THE LIMITED AND PERMANENT PRODUCTION FOREST AREAS IN THE NAME OF PT KALIMANTAN SURYA KENCANA IN GUNUNG MAS REGENCY, CENTRAL KALIMANTAN PROVINCE, COVERING AN AREA OF 7,422 (SEVEN THOUSAND FOUR HUNDRED TWENTY TWO) HECTARES.**

FIRST : Grant the extension of forest area borrow-use permit to PT Kalimantan Surya Kencana for the exploration of gold and its associated minerals within an area of 7,422 (seven thousand four hundred twenty two) hectares, including 6,347 (six thousand three hundred forty seven) hectares in the Limited Forest Area and 1,075 (one thousand seventy five) hectares in the Permanent Production Forest Area, encumbered by the License for Utilization of Timber in Natural Forest (IUPHHK-HA) of PT Hutan Domas Raya covering an area of 6,875 (six thousand eight hundred seventy five) hectares, IUPHHK-HA of PT Carus Indonesia covering an area of 322 (three hundred twenty two) hectares, and unencumbered by IUPHHK-HA/HT of 225 (two hundred twenty five) hectares, located in Gunung Mas Regency, Central Kalimantan Province, as drawn on the Map attached hereto, with the following details of use:

a. Regional mapping of 7,422 hectare area;

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b. Drilling of 77 boreholes.

SECOND : The grant of permit as referred to in the FIRST Dictum shall be for the extension of exploration of gold and its associated minerals and shall not guarantee the grant of forest area borrow-use permit for the production operation of gold and its associated minerals, so that the related obligations shall be settled upon the expiry of this exploration permit.

THIRD : PT. Kalimantan Surya Kencana reserves the right to:

a. remain, occupy, manage and carry out the exploration of gold and its associated minerals and other activities related thereto within the borrowed-used forest area.

b. utilize the outcomes of activities conducted in relation to the exploration of gold and its associated minerals within the borrowed-used forest area;

c. perform tree cutting in the framework of land clearing by paying the timber replacement fee and Forest Resource Provision (PSDH) and/or Reforestation Fund (DR) pursuant to the provisions of laws and regulations.

FOURTH : PT. Kalimantan Surya Kencana is obliged to:

a. perform reclamation and reforestation using local pioneer and superior plants on unused forest areas, without waiting for the expiry of the validity period of the forest borrow-use permit;

b. submit a Bank Guarantee issued by a government bank at the amount of 100% (one hundred percent) of the estimated volume of felled trees based on LHC recapitulation;

c. pay the Forest Resource Provision (PSDH), Reforestation Fund (DR), timber replacement fee (PNT), and any other financial obligation pursuant to the laws and regulations, the assessment of which shall done by employing the Technical Staff for the Management of Sustainable Production Forest - the Assay of Jungle Logs (GANISPHPL-PKB-R);

d. perform forest protection in accordance with the provisions of laws and regulations;

e. empower the local community through Forest Village Development Program and employment of Technical Staff for the Management of Sustainable Production Forest - Social Management (GANISPHPL-KESOS);

f. build a public information system related to the environmental damage and community empowerment;

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g. bear all costs incurred from the forest area borrow-use permit;

h. provide facilities for forestry apparatuses at both central and regional levels at the time of field monitoring and evaluation;

i. perform coordination of activities with the local forestry institution and the holders of IUPHHK-HA, viz. PT Hutan Domas Raya and PT Carus Indonesia before commencing field activities;

j. submit periodic reports every 6 (six) months to the Minister of Environment and Forestry on the utilization of the borrowed-use forest with copies to the Director General of Forestry Planology, Director General of Forestry Business Development, Director General of Forest Protection and Natural Conservation, Director General of Watershed Management and Social Affairs Development, Head of Forestry Agency of Central Kalimantan Province, Head of Forestry Agency of Gunung Mas Regency, Head of Technical Implementation Unit for Forest Area Stabilization in Region XXI of Palangkaraya, and Head of Technical Implementation Unit for Kahayan Watershed Management.

k. submit reports in the form of financial statement audited by a public accountant specifically for obligations under letter a to f every 6 (six) months, along with statutory fee entry, to the Minister of Environment and Forestry with copies to the Secretary General of the Ministry of Forestry and Director General of Forestry Planology.

FIFTH : PT. Kalimantan Surya Kencana is prohibited from:

a. Erecting permanent buildings;

b. Transferring the forest area borrow-use permit to another party or changing the company's name without approval from the Ministry of Environment and Forestry;

c. Pledging the borrowed-used forest area as security or collateral to another party;

d. Performing tree cutting within the forest with a radius or distance of up to:

1) 200 (two hundred) meters from spring and river banks in swampy areas;

2) 100 (one hundred) meters from riverbanks;

3) 50 (fifty) meters from tributaries;

AUTHORIZED & SWORN TRANSLATOR
S.K. GUB. DKI. JKT.
MOCHAMAD HIKMAT GUMILAR
No.1765/2006

SIXTH : Within not later than 60 (sixty) days upon the issuance of the forest area borrow-use permit for the exploration of gold and its associated minerals, PT Kalimantan Surya Kencana is obliged to submit a work plan for the fulfilment of obligations along with a notarized statement on the capability of satisfying all prescribed obligations to the Director General of Forestry Planology, Central Kalimantan Governor, Gunung Mas Regent, the Head of Forestry Agency of Central Kalimantan Province, the Head of Forestry Agency of Gunung Mas Regency, the Head of Technical Implementation Unit for Forest Area Stabilization in Region XXI of Palangkaraya, and the Head of Technical Implementation Unit for Kahayan Watershed Management.

SEVENTH : Before carrying out the exploration of gold and its associated minerals, PT Kalimantan Surya Kencana shall contact the Head of Forestry Agency of Central Kalimantan Province, PT. Hutan Domas Raya, and PT. Carus Indonesia not later than 1 (one) month as from the stipulation date of this forest area borrow-use permit for field coordination.

EIGHTH : This forest area borrow-use permit shall be subject to revocation and the holder thereof shall be subject to a penalty pursuant to the laws and regulations if the permit holder violates the terms set forth herein, with the following provisions:

a. The Director General of Forestry Planology shall issue a maximum of 3 (three) warnings, each with a term of at least 30 (thirty) working days following receipt thereof; and

b. The warnings as specified in letter a are not implemented and the permit holder fails to make any improvement effort within 30 (thirty) working days following receipt of the third warning.

NINTH : If within the borrowed-used forest area there exist the third party's rights, the settlement thereof shall become the responsibility of PT Kalimantan Surya Kencana under the coordination of the local government.

TENTH : a. Application for extension shall be filed by the Permit Holder not later than 3 (three) months prior to the expiry of the Permit.

b. With regard to the concession extension as specified in letter a, the Forestry Institution shall perform evaluation to ensure that:

b.1. The borrowed-used forest area remains in use for the exploration of gold and its associated minerals by the permit holder or its affiliate or any party permitted by the laws and regulations.

b.2. no violation has been committed by the permit holder of the provisions stipulated in the permit.

b.3. all obligations hereunder have been fulfilled.

ELEVENTH : This Decree shall take effect as from the date of its stipulation for a maximum period of 2 (two) years and shall automatically end in case of no extension.

Stipulated in: Jakarta
on the date of **2 3 APR 2015**

o.b.o. THE MINISTER OF ENVIRONMENT AND FORESTRY OF THE REPUBLIC OF INDONESIA THE CHAIRMAN OF INVESTMENT COORDINATING BOARD,

signed

FRANKY SIBARANI

True Copy
THE HEAD OF LEGISLATION,
PUBLIC RELATION & ADMINISTRATION BUREAU

signed and sealed

ARIESTA R. PUSPASARI

Copies of this Decree are conveyed to the honourable:
1. Minister of Environment and Forestry;
2. Minister of Energy and Mineral Resources;
3. Secretary of the Ministry of Environment;
4. Secretary General of the Ministry of Forestry;
5. Director General of Forestry Planology;
6. Director General of Forestry Business Development;
7. Director General of Watershed Management and Social Forest Affairs Development;
8. Director General of Forest Protection and Natural Conservation;
9. Governor of Central Kalimantan;
10. Regent of Gunung Mas;
11. Head of Forestry Agency of Central Kalimantan Province;
12. Head of Forestry Agency of Gunung Mas Regency;
13. Head of Technical Implementation Unit for Forest Area Stabilization in Region XXI of Palangkaraya;
14. Head of Technical Implementation Unit for Kahayan Watershed Management, Palangkaraya;
15. Head of Technical Implementation Unit for Production Forest Exploitation in Region XII of Palangkaraya;
16. Managing Director of PT Hutan Domas Raya;
17. Managing Director of PT Carus Indonesia;
18. President Director of PT Kalimantan Surya Kencana.

AUTHORIZED & SWORN TRANSLATOR S.K. GUB. DKI. JKT. MOCHAMAD HIKMAT GUMILAR No.1765/2006

Letter requesting correction of overlapping tenement and Ministry response

Kalimantan Surya Kencana
PT Kalimantan Surya Kencana

Pakangkaraya, September 22nd, 2014

Number: 1407/KSK/G-IX/2014
Appendix: 1 (one) file
Subject: Clarification required on borders of Mining Business License (IUP) of PT. Persada Makmur Sejahtera

To
Director General of Minerals and Coals
Ministry of Energy and Mineral Resources of the Republic of Indonesia
Jl. Prof. Dr. Supomo, SH. No. 10
Jakarta 12870

Referring to WEB GIS webpage of Directorate General of Minerals and Coals http://gis.djmbp.esdm.go.id:8008/mapguide2011/fusion/templates/mapguide/indonesia/index.html?ApplicationDefinition=Library://Webgis/Layouts/Indonesia.ApplicationDefinition

We are submitting a request to Director General of Minerals and Coals to review the border of Mining Business Permit (IUP) issued in the region. Based on our examination, the map attached contains IUP (area) belongs to PT. Persada Makmur Sejahtera, that (area) is also part of our contract of work. This is important to reassure our investor and to avoid undesirable situations in the future.

This is our request letter submitted for your perusal, and we thank you for all your attention, assistance, and cooperation.

Sincerely,

PT. Kalimantan Surya Kencana (KSK)

Signature
Stamp of Kalimantan Surya Kencana

Mansur Geiger
President Director
Carbon copy:

1. Honorable Regent of Gunung Mas in Kuala Kurun
2. Director General of Mineral Planning in Jakarta
3. Director of Mineral and Coal Developments in Jakarta
4. Head of Mining and Energy Office, Gunung Mas in Kuala Kurun
5. File

AUTHORIZED & SWORN TRANSLATOR
S.K. GUB. DKI. JKT.
MOCHAMAD HIKMAT GUMILAR
No.1765/2006

www.kalimantan.com

MINISTRY OF ENERGY AND MINERAL RESOURCES OF REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF MINERAL AND COAL
JALAN PROF. DR. SUPOMO, SH. NO. 10 JAKARTA 12870
TELEPON: (021) 8295609 FACSIMILE: (021) 8297642 Email: djmbp@minerba.esdm.go.id / www.minerba.go.id PO BOX. 4532KBY

Number: 55.Ktr/04/DTM2014 October 23, 2014
Attachment: -
Subject: Clarification of WEB GIS Borders
PT. Kalimantan Surya Kencana

To:
PT. Kalimantan Surya Kencana.
Jln. Rajawali VII, Srikandi III No. 100
Palangkaraya, Indonesia

In reference to your letter number: 1407/KSK/G-IX/2014 subject: Clarification required on borders of Mining Business License (IUP) of PT. Persada Makmur Sejahtera, as stated in your letter, in WEB GIS Directorate General of Mineral and Coals that borders of IUP Area of PT. Perdana Makmur Sejahtera overlaps with Contract of Work area of PT. Kalimantan Surya Kencana.

Therefore, we can confirm you that:

1. There is no overlapping between IUP area of PT. Persada Makmur Sejahtera Kalimantan and Contract of Work area of PT. Kalimantan Surya Kencana.
2. That WEB GIS of Directorate General of Minerals and Coals contains some errors that require correction.

This letter was published as a response and confirmation to your letter.

Thank you for your attention.

Directorate General,

(Signature and Stamp Affixed)

R. Sukhyar
Civil Servant Reg. # 195504111981031002

Carbon Copy:
1. Director of Mineral and Coals Development Program
2. Director of Mineral Exploration Development
3. Head of Sub Directorate of Mapping

Appendix 11 Letter of Data and Information disclosure from KSK to H&A

Kalimantan
Surya Kencana
PT Kalimantan Surya Kencana

Jl. Rajawali VII, Srikandi III, No. 100
Palangkaraya, Indonesia, 73112

T +62 (536) 322 4810
F +62 (536) 322 9187

Palangka Raya, November 30th, 2015

Reference No : 1727/KSK/A-XI/2015

To : Hackman & Associates Pty Ltd
Perth – Australia
Ph: +61 8 9473 1160 Fax: +61 8 9473 1161
Mbl: +61 4 0997 8386
Attn : Mr. Duncan Hackman

Dear Sir,

The data and information delivered in files to H&A and as listed in Table 5 "Files supplied to H&A by KSK and utilized in undertaking the 2015 BKM resource estimate and NI 43-101 report" are current, complete, accurate and true with respect to the resources at Beruang Kanan Main Zone. PT KSK has made full disclosure of all material information and data regarding the resources at BKM.

Yours Sincerely

Mansur Geiger
President Director

Kalimantan
Surya Kencana
PT Kalimantan Surya Kencana

www.kalimantan.com

Appendix 12 KSK 2015 core processing procedures

KALIMANTAN SURYA KENCANA

Core Handling Procedure : DRILL SITE – CORE SHED – PROCESSING

1. Isi formulir Chain of Custody 01 - DDH Core Received Drill Site ketika *Core Box* sampai di mobil.
1. *Record in Chain of Custody 01 Form - DDH Core Received at Drill Site from the drill contractor and stacked in the truck, tractor or whatever is being utilized to transport the core back to the Drill Camp.*

Drill cores should be covered by halve PVC pipes before being covered by plywood lids

If the core trays are being carried by hand, ensure they are properly secured to avoid core movement or cross contamination. Core tray for transport showing plywood lid with wooden plank support on top and base of the core tray securely locked

Trays to be carried individually and by two people.


KALIMANTAN SURYA KENCANA
Core Handling Procedure : DRILL SITE – CORE SHED – PROCESSING
1. Isi formulir Chain of Custody 02 - DDH Core Received Base Camp ketika Core Box sampai di core shed.
1. Record in Chain of Custody 02 Form - DDH Core Received Base Camp, when the core boxes arrived at the core shed.
2. Simpan core box di meja cuci Core. Buka Karet Pengaman, Penutup Core Box, dan Paralon.
2. Place the core tray in the washing rack. Remove Security rubber, core box cover, and PVC cover.
3. Cuci Core dengan kuas dan air.
3. Wash the drill cores gently with a small brush and water with low pressure
4. Ukur kedalaman awal dan akhir setiap Core Box. Tulis kedalaman tersebut di Core Box.
4. Measure the depth of the Start and Finish of the drill core and mark the core box accordingly
5. Ambil foto dalam kondisi basah dan timbang berat Core Box. Isi formulir Chain of Custody 03 - DDH Core Photos.
5. Take photograph in wet condition and measure core box weight. Record measurements in the Chain of Custody 02 - DDH Core Received Base form.
6. Ambil data RQD. Isi formulir Chain of Custody 05 - DDH Core Geotech Record.
6. Take RQD data and record in the Chain of Custody 05 - DDH Core Geotech Record form.
7. Tentukan Contoh SG dan ambil data SG. Isi formulir Chain of Custody 06 - DDH Core Data Collection Record.
7. Mark the depth of SG samples and take SG data. Record data in the Chain of Custody 06 - DDH Core Data Collection Record form.
8. Ambil data Geologi, Mineralogi, dan Struktur. Isi formulir Chain of Custody 04 - DDH Core Logging.
8. Take Geological, Mineralogy, and Structure data and record Chain of Custody 04 - DDH Core Logging form.
9. Tentukan batas kedalaman pengambilan contoh. Batas panjang pengambilan contoh adalah 2.0 – 4.0 m.
9. Measure and mark depth of samples interval. A minimum sample length of 2.0m and maximum length of 4.0m is allowed.
10. Beri Yellow Core Marker dan pita di steiap batas kedalaman contoh.
10. Put Yellow Core Marker and Flagging Tape in every marked samples interval.

KALIMANTAN SURYA KENCANA

Core Handling Procedure : DRILL SITE – CORE SHED – PROCESSING

11. Ambil data *Core Recovery* dan batas contoh.

11. Measure and record core recovery and mark the sample intervals.

12. Ambil data Magsus. Isi formulir Chain of Custody 06 - DDH Core Data Collection Record.

12. Take MagSus data and filled Chain of Custody 06 - DDH Core Data Collection Record form.

13. Tentukan garis potong pada contoh yang akan dipotong.

13. Place cutting lines for core cutting guide

14. Ambil foto dalam kondisi kering sebelum dipotong. Pastikan di *Core Box* sudah ada garis potong, batas pengambilan contoh, dan contoh SG.

14. Take photograph in dry condition before cutting core. Make sure there are cutting line, interval sample, and SG sample on the core box.

15. Bungkus *Core* yang akan dipotong dengan plastic tipis dan solasi. Buat garis potong yang sama dengan garis potong yang ada di *Core* pada plastic tipis dan solasi.

15. Drill cores are covered with plastic wrap and tape before cutting. Mark the same cutting line on plastic wrap and tape as indicated in the drill cores.

16. Siapkan kantong contoh dan beri nomor contoh pada kantong contoh. Tulis nama titik bor dan kedalaman pada buku contoh sesuai dengan nomor contoh.

16. Prepare the sample bag and write the designated sample numbers. Write drill hole name and depth of sampling interval on the Sample Book according to respective sample number.

17. Potong contoh dengan mesin potong batu. Arah potong sesuai dengan garis potong. Isi formulir Chain of Custody 06 - DDH Core Data Collection Record.

17. Cut core by core-cutting machine following the marked core cutting lines. Filled Chain of Custody 06 - DDH Core Data Collection Record form.

18. Setengah *Core* dimasukan ke dalam kantung contoh, beri nomor contoh, dan akan dikirim ke laboratorium. Setengah *Core* lagi akan di simpan dalam *Core Box* dan beri nomor contoh juga. Isi formulir Chain of Custody 06 - DDH Core Data Collection Record dan Chain of Custody 07 - DDH Core Sampling Record.

18. Half core and sample number placed in the sample bag and this will be sent to laboratory for analysis. The other half core and and the other sample number are placed in the core trays for reference. Filled Chain of Custody 06 - DDH Core Data Collection Record and Chain of Custody 07 - DDH Core Sampling Record forms.

19. Ikat kuat kantung contoh, bila di dalam batas contoh terdapat contoh SG, maka berilah pita bernomor SG saat mengikat. Ikat kantung contoh dengan Label Pengaman yang bernomor contoh sama. Simpan berurut sesuai dengan nomor contoh. Timbang berat contoh.

19. Tie securely the sample bag, if there is a SG Sample on that interval; place a flagging tape with SG sample number outside the bag. Each sample bag sealed by security tag with sequential number identical to sample number. Weight the sample bag and record weight

20. Ambil foto dalam kondisi kering setelah dipotong. Pastikan semua informasi di *Core Box* terlihat jelas.

20. Take photograph in dry condition after cutting core. Make sure all the information in the Core Box evident when photographed.

21. Ukir semua informasi mengenai *Core Box* di sisi kanan bawah *Core Box*.

21. Engrave drill core details onto end of each core boxes – positioned at lower right hand corner.

22. Tulis kedalaman pengeboram, Nama Titik Bor, panjang *Run*, dan *Core Recovery* pada label aluminium dan di jepit dibagian bawah dari *Core Block*. Isi formulir Chain of Custody 11 - DDH Core Checklist setelah selesai semua aktivitas Coreshed.

22. Engrave the drilling meter, the Hole Name, drill run length and recovered core length details onto aluminium tags and stapled onto the underside of the core blocks. Filled Chain of Custody 11 - DDH Core Checklist after finished all Coreshed activities.

KALIMANTAN SURYA KENCANA

Core Handling Procedure : DRILL SITE – CORE SHED – PROCESSING

23. Contoh disiapkan untuk di kirim ke Lab Intertek di Medan. Sebelum contoh di masukan ke dalam karung, sampel-sampel setiap karung di foto bersama dengan karungnya. Hitung berat dan jumalah contoh untuk dianalisa. Isi formulir Chain of Custody 08 - DDH Core Sample Transport Record ketika pengiriman contoh.
23. *Packed samples for sending to Intertek Lab in Medan. Take photographs of the samples in sequential order together with labeled sack showing number of samples. Total weight and corresponding samples for analysis. Filled Chain of Custody 08 - DDH Core Sample Transport Record.*

SOP REVISION BY DUNCAN HACKMAN, 27 June 2015

PT. KSK, BERUANG KANAN PROJECT

Abraham Benian Widjaja

Specific Gravity

7. Always check the tool used for weight measurement every morning by measuring the same item all the time. Check if the weight is always the same.
8. Make sure water level in the bucket is constant.
9. For drill core that is not absorbing water, SG dry and wet are assumed to be the same value and measurement can be completed at BKM camp. The volume of the sample then also can be obtained.
10. For drill core that is absorbing water such as clay, SG measurement for wet condition can be done at BKM camp. Then that sample will be sent to Intertek to be dried.
11. To prove that SG dry and SG wet for non-porous rock are the same, a test need to be conducted:
    - Choose around 5-7 drill core of varied (non-porous) lithology
    - Soak them in the water for 3 days to get saturated
    - Put them in the oven and measure their weight every hours
    - If after 4-5 measurements the weight is stable, the test is succeed
12. For SG sample sent to Intertek, write calico number on SG sample bag where the SG sample put into. Example: SGK00287 / 121007

Down-hole survey interval

3. Down-hole survey is done at 10.00 m, 30.00 m, 50.00 m, 70.00 m, and so on every 20.00m.
4. If the EOH is less than 10.00 m interval from last survey, then it is not necessary to do another survey.

Control for down-hole survey camera tool and compass.

5. Built a drill-hole replica at the camp using an one meter PVC pipe buried underground and secured with concrete.
6. Surveyor is requested to give an accurate azimuth and inclination of this replica.
7. Then down-hole survey tool must do reading every 2 days. Check if the reading is constant and also compare the result with the surveyor's. Record them on a table.

8. Check every compass used for drill site set up. By doing this, each compass reading deviation (if any) can be recognized by comparing to accurate azimuth/inclination done by surveyor.

Drilling and core logging

4. Do not wash the core at the drill site; it may wash away any minerals.
5. Mark unnatural break of drill core at the drill site.
6. During core logging, differentiate type/style of veins observed on each sampling interval. Vein logging will also include their mineral content, number, percentage, and a number of vein that have <20^{o} angle to core axis.

Sampling

4. Try to keep mineralized interval sampled in one bag, separated to barren zone.
5. Put Blank Pulp, Blank Coarse, and Duplicate Sample on the mineralization zone.
6. Be careful when scooping sample on loose material, avoid contamination between samples.

RQD

3. Geotechnician have to discuss with geologist for any observation they are not sure about.
4. On mineralization zone, geologist should make observation and give advice to geothechnician for internal core lost degree when is necessary.

Core Photo

3. Write azimuth and inclination of the drill hole on core photograph title board.
4. Upload wet full core photograph every night using drop box.

KSK SG: Dry and Weigh Flowsheet - July 2015

Portions of the total assay sample have been selected for SG weighing. These portions require drying and weighing at ITS Jakarta - samples bags with SG portions will contain additional callico bags which contain the SG portions. The samples with SG portions will be tied with orange flagging tape and will be noted on the dispatch advice sheet. The bags containing the SG portions will be numbered for individual identification and will also have the assay sample number noted to which the final portion of the SG sample will be returned.

Receipt as normal - leave the SG portions in their calico bags. Weigh the assay sample and the SG portion(s) (in bags) together to get the total receipt wt (leave the SG portions in their bags) - record the receipt wt against the assay sample number (e.g. 124212).

Weigh each of the SG portion(s) seperately (keep in calico bags) and record receipt SG weight against their individual SG sample numbers (e.g. SGK0211).

Place the SG portion calico bags on top of the total sample for oven drying and dry as per the KSK Assay Sample Prep Protocols.

Weigh the assay dried sample and the dried SG portions (in bags) together to get the total dry weight (leave the SG portions in their bags) - record the dried weight against the assay sample number as normal (e.g. 124212).

Weigh each of the dried SG portions seperately (keep in calico bags) and record dried SG weight against their individual sample numbers (e.g. SGK0211).

Crush the SG portion to 95% passing -2mm (Boyd Crusher) and split 50:50. Return one 50% portion of the SG sample to the original assay sample and discard the other 50%

Proceed with assay sample preparation as per KSK Assay Sample Prep Flowsheet

For SG Samples (e.g. SGK0226) - please report received weight and post drying weight. Do not undertake SG determination.

Appendix 13 Geoindo Survey Services Report

APPENDICES: Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

KALIMANTAN GOLD CORPORATION Ltd.

BERUANG KANAN – CENTRAL KALIMANTAN, INDONESIA

REPORT FOR SURVEY OF BOREHOLE COORDINATES & SECTION LINES

JULY 2015

Report No : TRC / 004 / 15 / Rev.00. Rep. 1

geoindo SURVEY SERVICES

UKAS 001

Certificate No: JKT0500251

PT. GEOINDO GIRI JAYA
Jl. Batununggal Indah IV No 83,
BANDUNG 40266,
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APPENDICES: Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.

geoindo
SURVEY SERVICES

• Topographic, Hydrographic & Construction Survey Services • Site Control • Laser Scanning • 2D/3D Modelling • CAD/GIS Bureau
• Satellite Imagery • Air Photography • Lidar Airborne laser topographic surveys

KALIMANTAN GOLD CORPORATION Ltd.

BERUANG KANAN – CENTRAL KALIMANTAN
INDONESIA

REPORT FOR SURVEY OF
BOREHOLE COORDINATES & SECTION LINES

Report No: TRC / 004 / 15 / Rev.00. Rep. 1

Authorised and signed by ______________________
~~Managing Director~~/Technical Director

Date of issue 28th July 2015

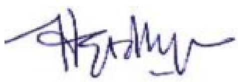
KALIMANTAN GOLD CORPORATION Ltd.

BERUANG KANAN – CENTRAL KALIMANTAN, INDONESIA

REPORT FOR SURVEY OF BOREHOLE COORDINATES & SECTION LINES

REVISION HISTORY

Revision	Date	Description
00	28th July 2015	Initial Issue

Review / Approval Signatures		
Prepared by	**Reviewed by**	**Approved by**
		
Fahrizal Ilham	Adang Herdhyana	Bob Bacciarelli
Geodetic Engineer	Project Manager	Technical Director

KALIMANTAN GOLD CORPORATION Ltd.

BERUANG KANAN – CENTRAL KALIMANTAN, INDONESIA

REPORT FOR SURVEY OF BOREHOLE COORDINATES & SECTION LINES

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FIGURES

APPENDICES

DRAWING

No.	DWG No.	Rev No.	Drawing Title	Scale	Size
1	TRC/004/001/001	A	Borehole Location	1 : 2,500	A1

KALIMANTAN GOLD CORPORATION Ltd.

BERUANG KANAN – CENTRAL KALIMANTAN, INDONESIA

REPORT FOR SURVEY OF BOREHOLE COORDINATES & SECTION LINES

1. INTRODUCTION

1.1 Project Description

Kalimantan Gold Corporation Ltd. is currently carrying out exploration mapping and drilling for mining project in Beruang Kanan, Central Kalimantan. As part of resource assessment and mine development planning, Kalimantan Gold Corporation Ltd. requires survey of borehole coordinates and section lines. There are two types of borehole coordinate, existing or old borehole (pickup) and new borehole (stakeout). Coordinates of all boreholes (old and new) to be tied in to existing benchmark on site, Ex Marinyuoi and BKM camp (Current Project) as a control point.

Kalimantan Gold Corporation Ltd. commissioned PT. Geoindo in May 2015 to carry out geodetic control survey, setting out section lines, and stakeout & pick up boreholes collar coordinates in Beruang Kanan, Central Kalimantan. The survey consisted of:

- Check existing BM BKM01 refer to two Bakosurtanal Benchmarks. We used Bakosurtanal Benchmark at Pontianak (CPON) and Balikpapan (CBAL) as a control point (by using CORS data).
- Construct additional BM consist of 2 pairs BMs (BKM03, BKM 04, BKM05, BKM06 were surveyed by static DGPS survey method) and 1 pair BM (BKM07, BKM08 were surveyed by traverse survey method).
- Perform geodetic control network using static DGPS survey method.
- Traverse survey.
- Stakeout survey for setting out 12 No. Section Lines (BK 31150 to BK 32650).
- Survey services for stakeout coordinates of 79 No. propose boreholes, and pickup coordinates of 65 No. existing boreholes.
- Drawing and Reporting.

This report presents the survey results, findings and conclusions together with drawings, figures, and tables summarizing the result of the survey.

1.2 Definitions / Abbreviations

Geoindo	=	PT. Geoindo Giri Jaya
DGPS	=	Differential Global Positioning System
LGO	=	Leica Geo Office
GDOP	=	Geometric Dilution of Precision
PDOP	=	Position Dilution of Precision
Company	=	Kalimantan Gold Corporation Ltd.
CORS	=	Continues Operating Reference Station

2. SCOPE OF WORK

The survey work consisted of the following:

1. Mobilisation.
2. Obtain permit, safety induction, prepare basecamp, site orientation, and coordinate with client for local labours.
3. Construct 4 No. new benchmarks (2 pairs) for entire survey area, and conduct static DGPS survey to tie in 2 No. Bakosurtanal/BIG control points (CORS data) at Pontianak and Balikpapan.
4. Stakeout survey for setting out 12 No. Section Lines.
5. Traverse survey around borehole locations which then tied in to minimum two benchmarks including adding 2 No. Benchmarks surveyed by traverse survey method.
6. Stakeout coordinates of 79 No. propose boreholes, and pick up coordinates 65 No. existing boreholes. Traverse survey was carried out to determine coordinates of additional control points for pick up coordinate of boreholes collar.
7. Field data processing and draft drawing production.
8. Demobilisation survey team.
9. Field data processing and QC.
10. Data processing, final report & drawing preparation in head office (Bandung)
11. Submit to client the pick-up boreholes collar survey report.

3. METHODOLOGY

The methodology used to carry out the survey of boreholes is presented in the following sections:

3.1 Mobilisation

The survey team mobilized from Bandung to Jakarta by car continued to Palangkaraya by air plane, and continued to Beruang Kanan by car on 30th May 2015. The team consisted of one senior surveyor (Ferry Ferdinan) until 23th June, replaced (Asep Kuswendi). The team was mobilized together with survey equipment consisting of the following:

- 2 units Leica GPS 1200 complete accessories.
- 1 unit total station Leica TS 06.
- 1 unit laptop with additional batteries & power
- 3 units Handy Talkie Radio for onsite communication.
- 1 unit digital camera.

3.2 Field Preparation

On arrival on site (31st May - 1st June 2015), the team conducted work coordination with client representatives, safety induction, site orientation, base camp preparation, set up radio communication, internet and office equipment.

3.3 Kick off Meeting and Site Inspection

On arrival on site, series of meetings were held at client office on site including:

- HSE briefing and induction.
- Security clearances and permits obtained for personnel, equipment and fieldwork activities if required.
- Confirm all logistic support.
- Scope of work explanation especially if there is client instruction on site.

A brief reconnaissance of survey area then was carried out in order to finalise work procedure and activities prior to start of fieldwork.

3.4 Benchmark Construction and Geodetic Control Survey

Resurvey of existing benchmark as base station BK Drill (BKM01) was carried out on 2nd June 2015 and tied in to CORS benchmarks at Pontianak (CPON benchmark) and Balikpapan (CBAL benchmark). CPON and CBAL are Indonesian CORS Networks from BIG (Geospatial Information Agency) that presented in Appendix 1 - BIG Reference Points.

Coordinate of BKM01 from our survey as follows:

Description	UTM S	UTM E	Ellipsoid Height	Latitude	Longitude
Base Stn BK Drill (BKM01)	9932425.408	769801.127	267.676	0°36'38.943"S	113°25'26.556"E

This value is different with previous survey with difference coordinates as follows:

Description	Geoindo Survey			Previous Survey			Difference of Coordinates		
	UTM S	UTM E	Ellipsoid Height	UTM S	UTM E	Ellipsoid Height	ΔX	ΔY	ΔZ
Base Stn BK Drill (BKM01)	9932424.0497	769803.8915	265.7407	9932425.408	769801.127	267.676	-1.358	2.764	-1.935

Difference of coordinate is likely occurred due to the use of reference points, methods and system of measurement is different as well as the possibility the central point of benchmark has shifted or different with previous survey. After discussion with the client (Mr. Steve Hughes) the value of new coordinate is used as reference for all survey activities.

Between 3rd June and 8th June 2015, total 4 No. benchmarks (2 pairs) consist of BKM03, BKM 04, BKM05, and BKM06 were constructed as additional BM for entire survey area. These new benchmarks were tied in to BKM01 benchmark by using static DGPS survey method.

DGPS survey network method was carried out over six hour period on BKM01 to CORS benchmarks and over one hour period on other new control points in order to tie in to existing reference benchmarks to determined coordinates and elevation of control points.

Technical specification of the GPS equipment used is as follows:

Model	: Leica GPS system 1200
Sensor Type	: Dual Frequency, 12 Channel
Accuracy	: 2 mm + 0.5 ppm

GPS observation data and coordinate transformation were processed using Leica Geo office V.7.0

Geodetic parameters for the survey used are as follows:

- ◊ Ellipsoid Reference : WGS 84
- ◊ Projection System : UTM Zone 49 S
- ◊ False Easting : 500,000
- ◊ False Northing : 0
- ◊ Central Meridian (CM) : 111° East
- ◊ Scale Factor : 0.9996
- ◊ Unit : Meters
- ◊ Elevation : Above Geoid / Orthometric height (Calculated by using EGM 2008 Model)

All data observation was automatically recorded on PCMCIA built in to total station to avoid manual record error.

Description of reference benchmark and new benchmarks are presented in Table 1 – List of Benchmark Coordinates and Appendix 2 – Benchmark Details. The geodetic control networks established by static DGPS survey are presented in Figure 1 – Geodetic Control Network.

Summary and results from geodetic control survey are presented in Table 2 – GPS Accuracy and Appendix 4 – Report of GPS Survey Data Processing.

3.5 Traverse Survey

Traverse survey was carried out between 8th June and 21st July 2015 to determine geodetic control coordinates along traverse route to boreholes locations. Total 2 No. benchmarks (1 pair) consist of BKM07 and BKM08 were constructed and surveyed by traverse survey as additional BM for entire survey area. All traverse markers were referenced to existing control points.

Minimum 2 No. existing control points were used as control points for traverse survey. Minimum 2 sets of angle and distance data in 1st face and 2nd face were recorded. All data was recorded automatically on memory card built in to the total stations to avoid manual record error.

Technical Specification of equipment used is as follows:

Model	: Leica TS 06 series
Angle Standard Deviation	: 1" both vertical and horizontal
Distance	: 2 mm + 2 ppm
Recording media	: Internal Memory 2 MB

Bowditch method was applied to obtain definitive coordinates. Levelling was applied by using our total station TS 06 series. Our survey result indicates that our equipment is sufficient to achieve accuracy better than (20 $\sqrt{D}$ km) mm, where D is levelling distance in km.

Summary and results from traverse survey are presented in Table 3 – Traverse Accuracy and Appendix 5 – Report of Traverse Survey Data Processing.

The traverse survey networks are presented in Figure 2 – Traverse Survey Network.

3.6 Pick up Borehole Collar Survey

The pickup borehole collar survey was carried out between 9th June and 20th July 2015, by one survey team for stakeout coordinates of 79 No. propose boreholes, and then pick up coordinates of 65 No. existing boreholes.

Traverse survey was carried out to determine coordinates of control points for pick up & stake out coordinate of borehole collars. Minimum 2 No. benchmarks were used as reference points for traverse survey.

All points of the survey was tied in and corrected with new control points / benchmarks.

Team started with line 31750 and the new holes and get BK57-58 surveyed, followed by the proposed holes. Afterwards survey new holes on line 32450 and did a couple of checks on the old KSK drill holes, to ensure accuracy of the previous survey data. The sequence borehole pickup was follow instruction on site. Team finished the survey at line 31550.

Coordinates of boreholes are presented in Table 4 – List of Borehole Collar Coordinates (Stakeout), Table 5 – List of Borehole Collar Coordinates (Pickup), and Appendix 3 – Borehole Details.

The position of all boreholes are presented in Figure 3 – Position of Boreholes and Drawing 001 – Borehole Map.

3.7 Data Processing

Data was analysed and processed in the field. All points from geodetic control and pick up borehole collar survey were used to generate the borehole map. Draft drawing of borehole map was updated every day after daily fieldwork finished.

Final data processing and analysis were done in Bandung. All data produced from the study was recorded on CD-ROM media and was submitted to Kalimantan Gold Corporation Ltd. at the end of the project.

3.8 Demobilisation

The team demobilized after completion of all of the survey work and after head office have approved initial results. The equipment was checked and packed. The team and equipment demobilized back to Bandung (head office) from Beruang Kanan to Palangkaraya by Car on 22nd July 2015, continued from Palangkaraya to Jakarta by air plane and continued from Jakarta to Bandung by car on 24th July 2015.

3.9 Deliverables and Reporting

3.9.1 Daily Report

Field survey progress and data from the survey was reported to Kalimantan Gold Corporation Ltd. the next day after completion. This also included programme for the next day's work and any problems which had or might occur during the fieldwork.

3.9.2 Final Report

The final report was produced in our Bandung office and included finalisation of the approved final draft drawings.

The report was consisted of hard copy and soft copy of the following:

- Drawings on A1 sheets at 1:2,500.
- Report book with tables, figures and appendix. Softcopy excel and ASCII file of tabulated data for benchmark coordinates and borehole collars coordinates.
- Two original hardcopy and soft copy of files in DVD format

3.10 Coordination and Communication with Company

During the project work, one senior surveyor communicated and coordinated with both the Kalimantan Gold Corporates Ltd. representative and our head office in Bandung on a daily basis. Daily activity reports were produced during field work and processing work and submitted to Kalimantan Gold Corporates Ltd. representative and our head office.

All correspondence related to administrative matters including those related to contractual or financial was between Kalimantan Gold Corporates Ltd. representative and our company director.

4. QUALITY CONTROL

PT. Geoindo is an ISO 9001 company certified by Llyods and is committed to the philosophy of quality assurance and quality control.

Each step of the survey process was reviewed and checked by senior members of the team prior to review by the technical directors. Our expatriate director oversaw the project team which consisted of our Indonesian surveyors and ensured that international standards and Kalimantan Gold Corporates Ltd. requirements were fully met.

Quality control is assured in that although the work was mainly carried out by our Indonesian professional staff, they were managed and technically controlled by one of our expatriate directors.

Data processing and draft drawings were generated directly in the field on a daily basis after each day survey fieldwork. The draft drawings and survey data processing was used to check and verify the previous day's survey as part of our Quality Control.

The data and draft drawing were then checked by our QC in head office Bandung before review and sign off by our survey manager prior to final check and sign off by one of our technical directors. Once the checks and signoffs were obtained the report and drawing were submitted to client in DRAFT form. Client review was then carried out by Kalimantan Gold Corporates Ltd. and approval given for Geoindo to finalise and submit the FINAL report and drawings.

5. SUMMARY AND CONCLUSIONS

The survey work which has been carried is summarized as follows:

1. Resurvey of existing benchmark as base station BK Drill (BKM01) was tied in to CORS benchmarks at Pontianak (CPON) and Balikpapan (CBAL).
2. Construct additional BM consist of 2 pairs BMs (BKM03, BKM 04, BKM05, BKM06) which were surveyed by static DGPS survey method and 1 pair BM (BKM07, BKM08) which were surveyed by traverse survey method).
3. Perform geodetic control network using static DGPS survey method.
4. Traverse survey.
5. Stakeout survey for setting out 12 No. Section Lines (BK 31150 to BK 32650).
6. Survey services for stakeout coordinates of 79 No. propose boreholes, and pickup coordinates of 65 No. existing boreholes.

Final data processing, reporting and drawing was carried out between 23th and 25th July 2015. The survey results are summarized below:

- Descriptions of new benchmarks are presented in Table 1 – List of Benchmark Coordinates and Appendix 2 – Benchmark Details.
- Summary and results from GPS survey are presented in Table 2 – GPS Accuracy and Appendix 4 – Report of GPS Survey Data Processing.
- GPS survey network is presented in Figure 1 – GPS Survey Network.
- Summary and results from traverse survey are presented in Table 3 – Traverse Accuracy and Appendix 5 – Report of Traverse Survey Data Processing.
- Traverse survey network is presented in Figure 2 – Traverse Survey Network.
- Coordinates of boreholes are presented in Table 4 – List of Borehole Collar Coordinates (Stakeout), Table 5 – List of Borehole Collar Coordinates (Pickup), and Appendix 3 – Borehole Details.
- Drawing of borehole map is presented in Drawing 001 – Borehole Map.

LIST OF BENCHMARK COORDINATES

geoindo SURVEY SERVICES

Point ID	Geographic Coordinates								Ellips. Height (m)	UTM Coordinates		Elevation above GEOID (EGM2008)	Remarks
	Latitude				Longitude					Easting (m)	Northing (m)		
	°	'	"		°	'	"						
BKM01	0	36	38.98745	S	113	25	26.64526	E	265.7407	769803.892	9932424.050	219.725	Existing Benchmark
BKM03	0	36	41.40273	S	113	25	9.74559	E	342.1881	769281.054	9932350.063	296.182	New Benchmark/GPS
BKM04	0	36	39.79519	S	113	25	10.42297	E	338.9533	769302.031	9932399.454	292.947	New Benchmark/GPS
BKM05	0	36	52.54702	S	113	25	16.18966	E	272.3393	769480.251	9932007.504	226.332	New Benchmark/GPS
BKM06	0	36	54.17149	S	113	25	15.90559	E	274.2409	769471.440	9931957.588	228.234	New Benchmark/GPS
BKM07	0	37	4.267334	S	113	24	57.01034	E	426.5943	768886.762	9931647.604	380.599	New Benchmark/Traverse
BKM08	0	37	4.293532	S	113	24	55.08636	E	429.1753	768827.242	9931646.826	383.181	New Benchmark/Traverse
Note:													

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TABLE 1 - LIST OF BENCHMARK COORDINATES

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Accuracy of GPS calculation is described as follow :

Loop	Accuracy Obtained	Accuracy Required	Acceptance (Y/N)
BKM01 – BKM03 – BKM05	1 : 69,211	1 : 50,000	Y

Calculated by: Ferry Ferdinan	Dicek oleh : Kurniayati
Tanggal : 10 June 2014	Tanggal : 11 June 2014

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TABLE 2 – GPS ACCURACY

geoindo SURVEY SERVICES

Horizontal and Vertical accuracy obtained for traverse survey is summarised below :

Traverse	Accuracy Obtained	Accuracy Required	Acceptance (Y/N)
Loop 1 BM 3-4,BM 5-6	Horizontal : 1 in 7.849 Vertikal : (0.003√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 2 BKM 31550	Horizontal : 1 in 36.669 Vertikal : (0.009√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 3 BKM 31650-31750	Horizontal : 1 in 13.248 Vertikal : (0.005√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 4 BKM 31950-31850	Horizontal : 1 in 33.507 Vertikal : (0.005√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 5 BKM 32050-32150	Horizontal : 1 in 28.925 Vertikal : (0.007√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 6 BKM 32350-32250	Horizontal : 1 in 18.518 Vertikal : (0.007√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 7 BKM 32650	Horizontal : 1 in 20.727 Vertikal : (0.002√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 8 BKM 32450	Horizontal : 1 in 8.064 Vertikal : (0.001√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Loop 9 BKM 32550	Horizontal : 1 in 5.753 Vertikal : (0√D) mm	Horizontal : 1 in 5.000 Vertical : (10√D)mm	Y Y
Calculated by : Asep Kuswendi Date: 25 July 2015		Checked by : M.Sopyan Date: 25 July 2015	

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TABLE 3 – TRAVERSE ACCURACY

LIST OF DRILL HOLE COLLAR COORDINATES (STAKEOUT)

geoindo

Client Name	Kalimantan Gold Corporate Ltd
Project No.	TRC 004
Project Name	Survey of Borehole Coordinates & Section Lines
Location	Beruang Kanan, Central Kalimantan

• Topographic, Hydrographic & Construction Survey services • Site Control • Laser Scanning • 2D/3D Modelling • CAD/GIS Bureau • Satellite Imagery • Air Photography • Lidar Airborne Laser Topographic Surveys

NO	Hole ID	PROPOSED DRILL HOLE COORDINATE Easting	Northing	Elevation Ellipsoid	ACTUAL DRILL HOLE COLLAR COORDINATE Easting	Northing	Elevation Geoid	Elevation Ellipsoid	DIFFERENCE Easting	DIFFERENCE Northing	DIFFERENCE Elevation Ellipsoid	Picked up Date	Remark
1	BKM31550-01	769078.253	9931550.000	379.638	769078.251	9931549.966	333.081	379.076	0.002	0.034	0.562	07 July 2015	
2	BKM31550-02	768974.178	9931550.000	397.771	768974.182	9931549.958	351.947	397.936	-0.004	0.042	-0.165	07 July 2015	
3	BKM31550-03	768877.190	9931550.000	427.647	768877.198	9931549.979	381.943	427.968	-0.008	0.021	-0.320	07 July 2015	
4	BKM31550-04	768776.190	9931550.000	452.950	768776.220	9931549.973	407.321	453.344	-0.030	0.027	-0.394	08 July 2015	
5	BKM31550-05	768671.196	9931550.000	446.452	768671.122	9931550.877	401.752	447.768	0.073	-0.877	-1.316	08 July 2015	
6	BKM31550-06	769173.871	9931550.000	347.147	769173.860	9931549.975	300.387	346.387	0.011	0.025	0.760	07 July 2015	
7	BKM31650-05	768940.997	9931650.000	413.168	768940.808	9931647.730	365.830	411.826	0.189	2.270	1.342	16 June 2015	
8	BKM31650-06	768999.539	9931650.000	408.486	768999.325	9931648.334	362.927	408.924	0.214	1.666	-0.438	16 June 2015	
9	BKM31650-07	769049.701	9931650.000	389.181	769049.526	9931648.859	345.063	391.061	0.175	1.141	-1.880	16 June 2015	
10	BKM31650-08	769093.871	9931650.000	356.377	769093.593	9931649.342	312.736	358.735	0.278	0.658	-2.358	15 June 2015	
11	BKM31650-09	769145.262	9931650.000	322.010	769145.006	9931649.823	277.250	323.250	0.256	0.177	-1.240	15 June 2015	
12	BKM31750-10	769202.564	9931750.000	333.454	769202.567	9931750.007	287.597	333.598	-0.003	-0.007	-0.144	24 June 2015	
13	BKM31850-01	769201.636	9931850.000	339.794	769201.633	9931850.014	292.981	338.983	0.003	-0.014	0.811	24 June 2015	
14	BKM31850-02	769157.212	9931850.000	364.203	769157.218	9931850.008	317.954	363.955	-0.006	-0.008	0.248	24 June 2015	
15	BKM31850-03	769105.953	9931850.000	374.455	769105.956	9931850.024	331.384	377.384	-0.003	-0.024	-2.929	24 June 2015	
16	BKM31850-04	769060.552	9931850.000	395.447	769060.544	9931850.032	350.952	396.951	0.008	-0.032	-1.504	25 June 2015	
17	BKM31850-05	769019.110	9931850.000	426.623	769019.091	9931850.023	380.838	426.837	0.019	-0.023	-0.214	25 June 2015	
18	BKM31850-06	768900.869	9931850.000	417.879	768900.896	9931850.087	369.298	415.295	-0.027	-0.087	2.584	25 June 2015	
19	BKM31850-07	768848.422	9931850.000	427.080	768848.429	9931850.087	382.584	428.580	-0.007	-0.087	-1.500	25 June 2015	
20	BKM31850-08	768797.024	9931850.000	429.057	768797.007	9931850.084	384.123	430.118	0.017	-0.084	-1.061	02 July 2015	
21	BKM31850-09	768734.786	9931850.000	438.581	768734.800	9931850.095	391.156	437.150	-0.014	-0.095	1.431	02 July 2015	
22	BKM31850-10	768578.489	9931850.000	405.614	768578.505	9931849.949	358.109	404.100	-0.016	0.051	1.514	19 June 2015	
23	BKM31950-01	768651.869	9931950.000	447.308	768651.888	9931949.971	400.401	446.394	-0.019	0.030	0.914	19 June 2015	
24	BKM31950-02	768713.137	9931950.000	451.607	768713.196	9931949.988	403.992	449.986	-0.059	0.012	1.621	18 June 2015	
25	BKM31950-03	768778.991	9931950.000	462.211	768779.038	9931949.987	416.369	462.364	-0.047	0.013	-0.153	18 June 2015	
26	BKM31950-04	768834.305	9931950.000	456.105	768834.328	9931949.989	410.308	456.304	-0.023	0.011	-0.199	18 June 2015	
27	BKM31950-05	768888.003	9931950.000	448.023	768888.000	9931949.989	401.860	447.857	0.003	0.011	0.166	18 June 2015	
28	BKM31950-06	768938.153	9931950.000	434.164	768938.204	9931949.992	388.312	434.310	-0.051	0.008	-0.146	18 June 2015	
29	BKM31950-07	768990.961	9931950.000	417.531	768990.984	9931949.993	371.442	417.441	-0.022	0.007	0.090	17 June 2015	
30	BKM31950-08	769040.157	9931950.000	401.124	769040.210	9931949.988	355.020	401.020	-0.053	0.012	0.104	17 June 2015	
31	BKM31950-09	769094.530	9931950.000	380.235	769094.552	9931949.996	334.460	380.461	-0.022	0.004	-0.226	17 June 2015	
32	BKM31950-10	769145.953	9931950.000	352.215	769145.988	9931949.999	306.445	352.447	-0.035	0.001	-0.232	17 June 2015	
33	BKM32050-01	768998.180	9932050.000	398.113	768998.182	9932049.997	351.772	397.771	-0.002	0.003	0.342	02 July 2015	
34	BKM32050-02	768948.297	9932050.000	403.348	768948.277	9932049.998	357.130	403.129	0.020	0.002	0.219	03 July 2015	
35	BKM32050-03	768854.629	9932050.000	440.767	768854.625	9932049.997	395.133	441.130	0.004	0.003	-0.363	03 July 2015	
36	BKM32050-04	768804.443	9932050.000	460.537	768804.445	9932049.996	414.575	460.571	-0.002	0.004	-0.034	03 July 2015	
37	BKM32050-05	768702.347	9932050.000	488.149	768702.310	9932049.997	439.212	485.206	0.037	0.003	2.943	04 July 2015	
38	BKM32150-02	768729.523	9932150.000	478.010	768729.515	9932149.998	433.527	479.522	0.009	0.002	-1.512	05 July 2015	
39	BKM32150-03	768774.520	9932150.000	465.788	768774.493	9932149.993	419.436	465.432	0.026	0.007	0.356	05 July 2015	
40	BKM32150-04	768828.519	9932150.000	457.487	768828.502	9932149.993	412.358	458.355	0.017	0.007	-0.868	05 July 2015	
41	BKM32150-05	768922.111	9932150.000	425.275	768922.052	9932150.003	381.045	427.044	0.060	-0.003	-1.769	05 July 2015	
42	BKM32150-06	768970.316	9932150.000	407.517	768970.258	9932150.011	364.877	410.877	0.058	-0.011	-3.360	05 July 2015	
43	BKM32250-01	768973.876	9932249.999	403.545	768973.772	9932249.872	356.888	402.888	0.105	0.127	0.657	30 June 2015	
44	BKM32250-02	768881.001	9932250.001	457.190	768880.964	9932249.935	411.591	457.589	0.037	0.066	-0.399	30 June 2015	
45	BKM32250-03	768836.998	9932250.001	483.246	768836.918	9932249.964	437.270	483.268	0.080	0.037	-0.022	30 June 2015	
46	BKM32250-04	768731.747	9932250.001	505.158	768731.673	9932249.938	458.147	504.143	0.074	0.063	1.015	29 June 2015	
47	BKM32250-05	768681.750	9932250.001	518.982	768681.656	9932249.991	474.555	520.550	0.094	0.011	-1.568	29 June 2015	
48	BKM32250-06	768633.732	9932250.001	536.689	768633.669	9932250.026	491.368	537.362	0.063	-0.025	-0.673	29 June 2015	
49	BKM32250-07	768556.720	9932250.001	546.874	768556.631	9932250.057	502.007	548.000	0.089	-0.056	-1.126	29 June 2015	
50	BKM32250-08	769011.994	9932250.000	374.127	769011.937	9932249.850	327.514	373.515	0.057	0.150	0.612	30 June 2015	
51	BKM32350-01	768482.165	9932350.000	575.296	768482.171	9932350.129	529.404	575.396	-0.006	-0.129	-0.100	28 June 2015	
52	BKM32350-02	768535.455	9932350.000	566.369	768535.481	9932350.107	520.488	566.481	-0.026	-0.107	-0.112	28 June 2015	
53	BKM32350-03	768619.868	9932350.000	532.763	768619.890	9932350.112	484.530	530.524	-0.022	-0.112	2.239	28 June 2015	
54	BKM32350-04	768666.018	9932350.000	516.977	768666.035	9932350.091	470.995	516.990	-0.017	-0.091	-0.013	27 June 2015	
55	BKM32350-05	768737.672	9932350.000	489.147	768737.680	9932350.065	443.614	489.610	-0.008	-0.065	-0.463	27 June 2015	
56	BKM32350-06	768839.264	9932350.000	459.866	768839.276	9932350.034	414.018	460.016	-0.012	-0.034	-0.150	27 June 2015	
57	BKM32350-07	768896.684	9932350.000	444.877	768896.693	9932350.023	401.261	447.260	-0.009	-0.023	-2.383	27 June 2015	
58	BKM32350-08	768999.726	9932350.000	387.985	768999.699	9932349.997	340.453	386.454	0.027	0.003	1.531	26 June 2015	
59	BKM32450-10	768978.167	9932450.000	395.880	768978.154	9932450.298	349.556	395.557	0.013	-0.298	0.323	26 June 2015	
60	BKM32450-11	769050.038	9932450.000	387.137	769049.988	9932450.177	341.694	387.696	0.050	-0.177	-0.559	26 June 2015	
61	BKM32450-12	769101.041	9932450.000	374.881	769101.035	9932450.102	328.685	374.688	0.006	-0.102	0.193	26 June 2015	
62	BKM32450-13	769150.067	9932450.000	359.461	769150.055	9932450.034	314.248	360.252	0.012	-0.034	-0.791	26 June 2015	
63	BKM32550-01	768934.517	9932550.000	391.179	768934.484	9932550.171	345.807	391.808	0.033	-0.171	-0.629	09 June 2015	
64	BKM32550-02	768883.662	9932550.000	406.327	768883.668	9932550.188	361.037	407.037	-0.006	-0.188	-0.710	09 June 2015	
65	BKM32550-03	768834.159	9932550.000	419.311	768834.211	9932550.213	374.056	420.055	0.003	-0.213	-0.744	09 June 2015	
66	BKM32550-04	768782.056	9932550.000	431.291	768782.075	9932550.245	386.148	432.146	-0.019	-0.245	-0.855	10 June 2015	
67	BKM32550-05	768729.875	9932550.000	442.441	768729.896	9932550.273	396.381	442.378	-0.021	-0.273	0.063	10 June 2015	
68	BKM32550-06	768623.245	9932550.000	474.973	768623.247	9932550.334	429.152	475.147	-0.002	-0.334	-0.174	10 June 2015	
69	BKM32550-07	768523.752	9932550.000	504.606	768523.702	9932550.455	459.439	505.432	0.050	-0.455	-0.826	10 June 2015	
70	BKM32550-08	768476.025	9932550.000	528.624	768475.996	9932550.423	484.478	530.471	0.029	-0.423	-1.846	10 June 2015	
71	BKM31850-11	768679.000	9931850.000	448.100	768678.989	9931850.000	382.211	428.204	0.011	0.000	19.896	08 July 2015	
72	BKM32050-06	768650.000	9932050.000	515.760	768649.969	9932049.970	423.296	469.289	0.031	0.030	46.471	04 July 2015	
73	BKM32050-07	768600.000	9932050.000	543.370	768599.974	9932049.956	407.576	453.569	0.026	0.044	89.802	04 July 2015	
74	BKM32150-01	768625.520	9932150.000	490.230	768625.461	9932149.948	450.666	496.659	0.059	0.052	-6.429	04 July 2015	
75	BKM32250-09	768498.780	9932250.000	557.050	768498.841	9932250.019	495.729	541.721	-0.061	-0.019	15.329	11 July 2015	
76	BKM32450-09	768372.586	9932451.047	547.587	768372.604	9932451.124	502.089	548.079	-0.017	-0.077	-0.492	11 July 2015	
77	BKM32650-03	768779.000	9932650.000	463.000	768778.976	9932650.050	418.844	464.842	0.024	-0.050	-1.842	12 July 2015	
78	BKM32650-02	768866.000	9932650.000	445.000	768865.978	9932649.936	401.889	447.889	0.022	0.064	-2.889	13 July 2015	
79	BKM32650-01	768951.000	9932650.000	395.000	768950.944	9932649.656	350.489	396.490	0.056	0.344	-1.490	13 July 2015	

LIST OF DRILL HOLE COLLAR COORDINATES (PICK UP)

geoindo

Client Name	Kalimantan Gold Corporate Ltd
Project No.	TRC 004
Project Name	Survey of Borehole Coordinates & Section Lines
Location	Beruang Kanan, Central Kalimantan

• Topographic, Hydrographic & Construction Survey services • Site Control • Laser Scanning • 2D/3D Modelling • CAD/GIS Bureau • Satellite Imagery • Air Photography • Lidar Airbone Laser Topographic Surveys

PROPOSED DRILL HOLE COORDINATE					ACTUAL DRILL HOLE COLLAR COORDINATE								
NO	Hole ID	Easting	Northing	Elevation	Easting	Northing	Elevation		DIFFERENCE			Picked up Date	Remark
				Ellipsoid			Geoid	Ellipsoid	Easting	Northing	Elevation Ellipsoid		
1	BK-1	768687.780	9932360.080	509.190	768692.023	9932338.538	455.126	501.121	-4.243	21.542	8.069	28 June 2015	
2	BK-10	768938.340	9932512.330	387.410	768941.215	9932511.516	340.566	386.567	-2.875	0.814	0.843	14 July 2015	
3	BK-11	769073.254	9931593.154	361.580	769070.280	9931587.202	318.450	364.448	2.974	5.952	-2.868	19 July 2015	
4	BK-14	768411.040	9932328.370	560.410	768407.270	9932333.221	516.331	562.321	3.770	-4.851	-1.911	11 July 2015	
5	BK-2	768675.940	9932523.700	449.780	768673.964	9932525.431	403.073	449.069	1.976	-1.731	0.711	15 July 2015	
6	BK-3	768672.220	9932526.100	449.760	768677.065	9932525.083	403.118	449.114	-4.845	1.017	0.646	15 July 2015	
7	BK-4	768779.350	9932142.250	466.660	768783.188	9932141.814	420.169	466.165	-3.838	0.436	0.495	05 July 2015	
8	BK-5	768944.880	9931779.900	416.000	768947.682	9931779.046	369.169	415.166	-2.802	0.854	0.834	18 July 2015	
9	BK-6	768817.391	9931938.693	458.560	768821.823	9931937.717	411.809	457.805	-4.432	0.976	0.755	20 July 2015	
10	BK-7	768950.190	9931977.820	424.510	768953.584	9931977.033	377.010	423.008	-3.394	0.787	1.502	20 July 2015	
11	BK-9	769331.196	9932502.200	315.702	769334.059	9932501.172	269.322	315.330	-2.863	1.028	0.372	15 July 2015	
12	BK-17A	769170.200	9932037.030	340.820	769164.692	9932035.107	297.156	343.158	5.508	1.923	-2.338	20 July 2015	
13	BK-17B	769142.260	9932133.620	346.120	769145.102	9932132.840	300.155	346.157	-2.842	0.780	-0.037	20 July 2015	
14	BK029	768722.410	9932518.850	437.720	768725.211	9932518.103	390.776	436.773	-2.801	0.747	0.947	15 July 2015	
15	BK030	768785.560	9932343.010	477.830	768788.635	9932342.209	430.773	476.770	-3.075	0.801	1.060	27 June 2015	
16	BK031	768665.410	9932445.650	476.280	768668.287	9932444.919	429.275	475.271	-2.877	0.731	1.009	10 July 2015	
17	BK032	768791.320	9932440.070	438.750	768795.034	9932439.334	391.344	437.342	-3.714	0.736	1.408	09 July 2015	
18	BK033	768572.340	9932540.320	489.940	768575.599	9932539.599	443.349	489.343	-3.259	0.721	0.597	12 July 2015	
19	BK034	768874.200	9932516.230	405.940	768877.199	9932515.377	359.337	405.336	-2.999	0.853	0.604	14 July 2015	
20	KBK-0021	768941.896	9932599.829	392.775	768943.024	9932599.352	346.023	392.024	-1.128	0.477	0.751	14 July 2015	
21	KBK-0024	768895.250	9931483.600	430.060	768898.008	9931482.757	383.214	429.209	-2.758	0.843	0.851	16 July 2015	
22	BK035	768586.020	9932337.080	555.680	768589.050	9932336.782	508.927	554.921	-3.030	0.298	0.759	28 June 2015	
23	BK036	768796.200	9932621.780	446.980	768799.162	9932620.889	400.027	446.026	-2.962	0.891	0.954	13 July 2015	
24	BK037	768647.960	9932628.760	483.720	768650.556	9932627.956	435.355	481.351	-2.596	0.804	2.369	12 July 2015	
25	BK038	769025.810	9932621.510	382.070	769028.625	9932620.531	335.165	381.167	-2.815	0.979	0.903	14 July 2015	
26	BK044	768940.610	9932342.890	416.280	768943.302	9932342.034	369.341	415.341	-2.692	0.856	0.939	27 June 2015	
27	BK044-02	768942.390	9932342.830	416.850	768944.854	9932342.100	368.126	414.126	-2.464	0.730	2.724	27 June 2015	
28	BK045	768781.510	9932246.960	489.550	768784.380	9932246.262	442.611	488.608	-2.870	0.698	0.942	30 June 2015	
29	BK047	768680.870	9932145.590	484.800	768683.709	9932144.718	437.937	483.931	-2.839	0.872	0.869	04 July 2015	
30	BK046	768926.540	9932241.270	435.760	768929.553	9932240.356	389.306	435.305	-3.013	0.914	0.455	30 June 2015	
31	BK048	768881.070	9932130.870	450.210	768883.579	9932130.188	403.540	449.538	-2.509	0.682	0.672	05 July 2015	
32	BK049	768754.550	9932043.960	484.220	768757.197	9932043.007	437.312	483.307	-2.647	0.953	0.913	03 July 2015	
33	BK050	768906.210	9932029.440	431.300	768908.775	9932028.772	382.213	428.211	-2.565	0.668	3.089	03 July 2015	
34	BK051	769037.100	9931490.470	380.750	769039.667	9931489.677	332.727	378.724	-2.567	0.793	2.026	16 July 2015	
35	BK053	769050.000	9932050.000	383.133	769033.156	9932031.002	345.283	391.283	16.844	18.998	-8.150	02 July 2015	
36	BK054	768950.000	9931850.000	408.700	768930.435	9931835.333	367.318	413.315	19.566	14.667	-4.615	02 July 2015	
37	BK055	769050.000	9932250.000	359.530	769037.567	9932252.728	318.617	364.618	12.433	-2.728	-5.088	30 June 2015	
38	BK056	769050.000	9932150.000	374.000	769073.197	9932181.031	315.137	361.138	-23.197	-31.031	12.862	20 July 2015	
39	BK057	769150.000	9931750.000	342.770	769139.527	9931752.382	298.996	344.996	10.473	-2.382	-2.226	19 July 2015	
40	BK058	769050.000	9931750.000	376.190	769046.025	9931757.453	332.936	378.935	3.975	-7.453	-2.745	19 July 2015	
41	BKD03-01	768922.860	9932432.790	414.340	768925.691	9932431.983	367.534	413.534	-2.831	0.807	0.806	09 July 2015	
42	BKD03-02	768925.910	9932432.110	414.680	768928.644	9932431.340	367.473	413.473	-2.734	0.770	1.207	09 July 2015	
43	KBK-0023	768580.000	9932256.010	551.604	768583.180	9932255.355	504.964	550.957	-3.180	0.655	0.647	11 July 2015	
44	KBK-0026	769301.977	9932241.765	337.995	769304.786	9932241.170	291.292	337.297	-2.809	0.595	0.698	20 July 2015	
45	BKM31650-01	768689.455	9931650.000	404.045	768684.318	9931647.418	357.688	403.680	5.137	2.582	0.365	16 July 2015	
46	BKM31650-02	768769.667	9931650.000	438.058	768766.253	9931653.308	389.617	435.610	3.414	-3.308	2.448	18 July 2015	
47	BKM31650-03	768827.787	9931650.000	427.383	768824.107	9931652.557	381.219	427.213	3.680	-2.557	0.170	18 July 2015	
48	BKM31650-04	768888.199	9931650.000	426.368	768883.197	9931653.237	379.973	425.968	5.002	-3.237	0.400	18 July 2015	
49	BKM31750-01	769102.000	9931750.000	363.215	769085.842	9931753.145	329.561	375.560	16.158	-3.145	-12.345	19 July 2015	
50	BKM31750-02	769006.000	9931750.000	397.224	769001.216	9931758.576	354.542	400.540	4.784	-8.576	-3.316	19 July 2015	
51	BKM31750-03	768958.000	9931750.000	416.994	768950.207	9931764.045	373.182	419.179	7.793	-14.045	-2.185	18 July 2015	
52	BKM31750-04	768901.000	9931750.000	419.712	768892.233	9931750.821	373.151	419.147	8.767	-0.821	0.565	18 July 2015	
53	BKM31750-05	768842.803	9931750.000	418.738	768839.971	9931751.052	371.106	417.101	2.832	-1.052	1.637	18 July 2015	
54	BKM31750-06	768783.769	9931750.000	401.028	768786.908	9931756.683	356.084	402.078	-3.139	-6.683	-1.050	18 July 2015	
55	BKM31750-07	768700.806	9931750.000	393.390	768706.054	9931746.320	348.799	394.792	-5.248	3.680	-1.402	18 July 2015	
56	BKM31750-08	768600.512	9931750.000	378.973	768656.795	9931753.096	342.768	388.760	-56.283	-3.096	-9.787	18 July 2015	
57	BKM32450-01	768845.305	9932449.198	422.693	768849.178	9932444.278	376.422	422.421	-3.873	4.920	0.272	09 July 2015	
58	BKM32450-02	768746.269	9932449.198	443.263	768745.382	9932453.281	396.518	442.515	0.887	-4.083	0.748	09 July 2015	
59	BKM32450-03	768704.078	9932449.198	455.517	768710.227	9932455.283	405.265	451.261	-6.148	-6.085	4.256	09 July 2015	
60	BKM32450-04	768613.082	9932449.198	485.301	768616.345	9932458.368	438.668	484.663	-3.264	-9.170	0.638	10 July 2015	
61	BKM32450-05	768562.638	9932450.000	497.805	768567.582	9932458.524	449.636	495.630	-4.943	-8.524	2.175	10 July 2015	
62	BKM32450-06	768518.178	9932450.000	521.077	768519.889	9932463.828	475.895	521.888	-1.711	-13.828	-0.811	10 July 2015	
63	BKM32450-07	768470.246	9932450.000	537.402	768470.660	9932456.212	490.755	536.747	-0.414	-6.212	0.655	10 July 2015	
64	BKM32450-08	768417.500	9932447.927	549.000	768423.084	9932458.720	498.665	544.656	-5.584	-10.793	4.344	11 July 2015	
65	BKM32550-05	768934.517	9932550.000	391.179	768991.884	9932526.667	335.172	381.173	-57.367	23.333	10.006	14 July 2015	

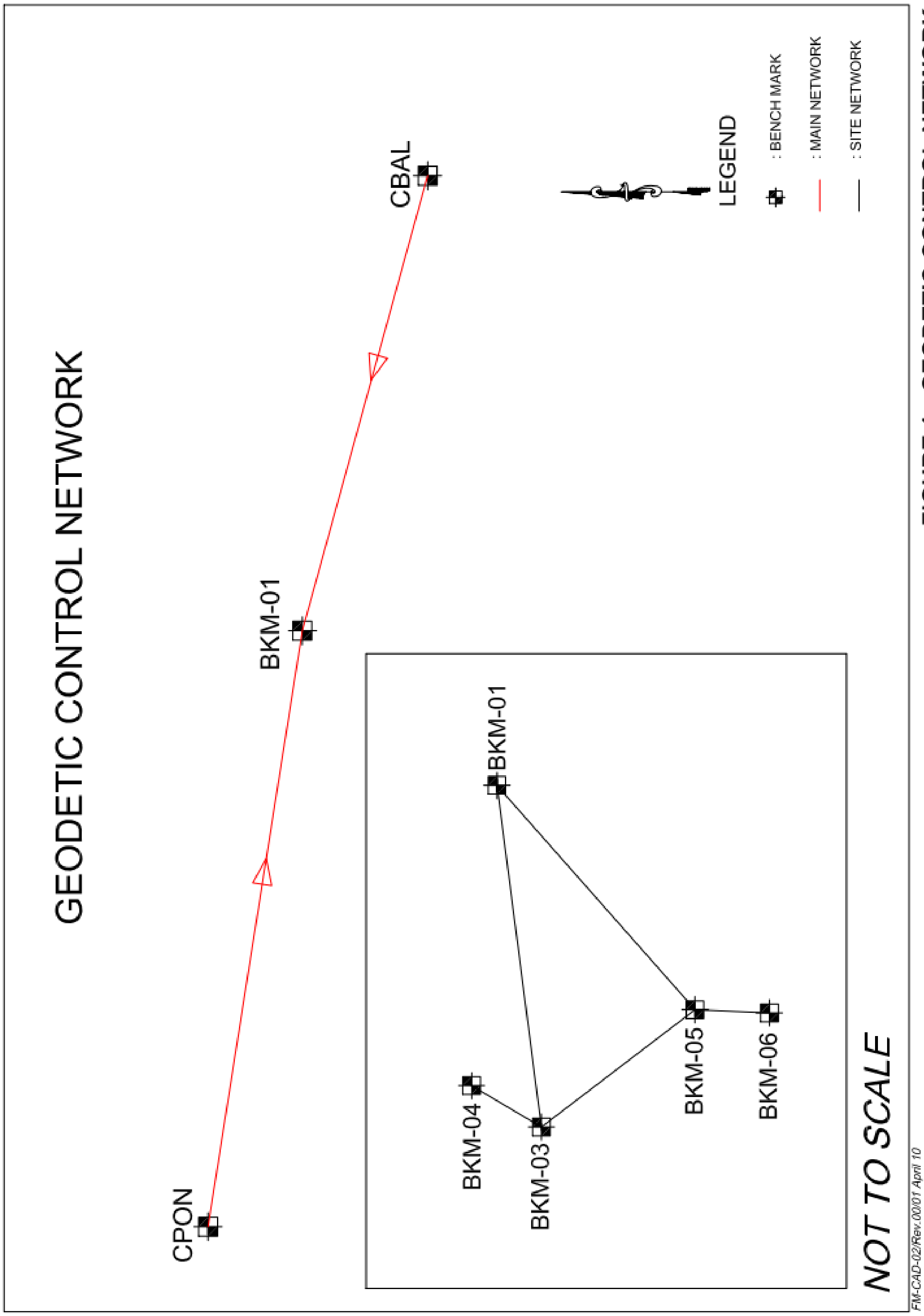

FIGURE 1 - GEODETIC CONTROL NETWORK

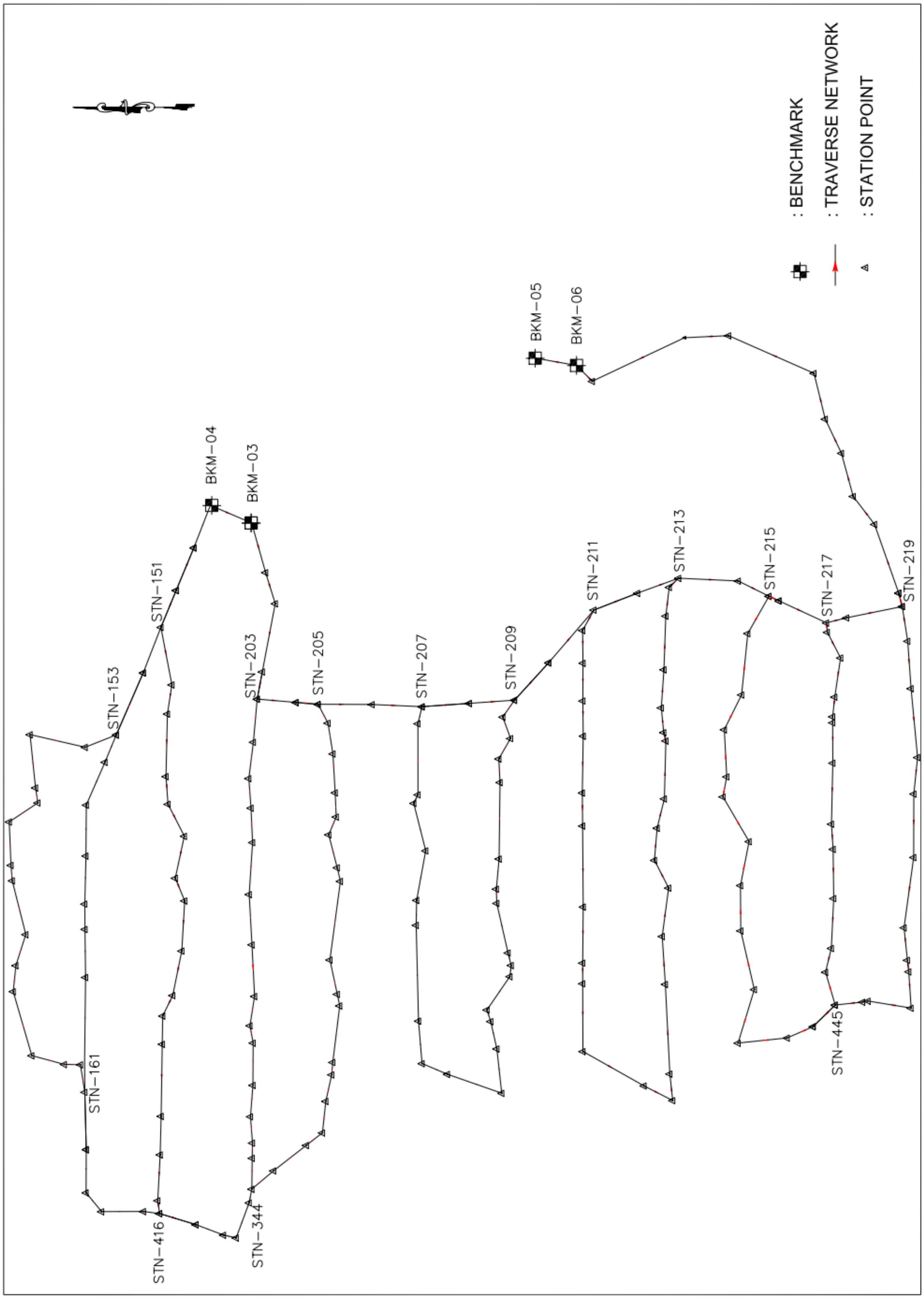

FIGURE 2 - TRAVERSE SURVEY NETWORK

Appendix 14 Multi Element Association Report

Beruang Kanan Main Zone, Kalimantan, Indonesia;

Multi Element Associations and their Relationship to Copper Mineralisation.

August, 2015

Prepared for PT Kalimantan Surya Kencana
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1 Summary

1.1 Project Overview

Samples at Beruang Kanan (BK) have been assayed for suites of elements, the number of which have differed between drilling programmes. A substantial number of samples have been assayed for major and trace element s (39 individual elements) as part of the ICP-OES analytical programme and H&A considers that the spatial distribution of these samples and elements determined are such that reliable relationships can be identified and interpreted with respect to lithological, alteration and mineralisation events.

H&A has undertaken the following activities in investigating the elements associated with copper mineralisation and this document presents the findings from the investigation:

1. Generated a multi-element dataset from the KSK sampling intervals file and the ITS and GA laboratory report files (SIF files);
2. Reviewed individual element data-population distributions;
3. Undertook Principle Components Factor Analysis (PCFA);
4. Refined and directed PCFA to investigate associations:
    - Maximizing the number of elements informing the analysis,
    - Maximize the spatial distribution of the analysis (while still considering the number of elements informing the analysis),
    - Within the mineralisation (selecting samples with greater than 500ppm Cu grades);
5. Identified an additive indices factor related to copper mineralisation by:
    - Reviewing the spatial distribution of individual element grades with respect to high grade copper mineralisation,
    - Reviewed findings against raw tabulated data to determine robustness of associations,
    - Generated a favorable copper added index score and standardized score to account for element number variability,
    - Investigated threshold values of added index with relation to copper mineralisation;
6. Interpreted the PCFA and additive index scores wrt copper mineralisation by:
    - Generating factor scores and added index scores for each sample and presenting these in the Minesight 3D visualization and interpretation software package,
    - Generating Implicit Modeled grade shells of the copper grades, factor scores and added index (including the derivatives presenting the pre-determined threshold information),
    - Assessing shell volumes for grade and distribution trends and reviewing against copper grade distributions
7. Identified vectors to mineralisation by:

- Refining and completing an earlier generated structural interpretation (based on geomorphological features) by honoring features in both this interpretation and in the grade shells,
- Evaluating copper grades against the structural model and added index grade shells;

8. Proposed a structural and mineralisation model for the Beruang Kanan copper mineralisation and suggested step-out/proximal drill targets for testing.

1.2 Key Findings

1.2.1 ME dataset - Assayed element coverage

Table 1: Element coverage in ME study dataset

Element	Count of assay records (total 9566 in Dataset)	Number of missing records	Percent populated records in dataset	Element	Count of assay records (total 9566 in Dataset)	Number of missing records	Percent populated records in dataset
Ag	9515	51	99	Na	6675	2891	70
Al	5845	3721	61	Nb	5211	4355	54
As	8661	905	91	Ni	6325	3241	66
Au	4071	5495	43	P	4792	4774	50
Ba	5797	3769	61	Pb	9559	7	100
Be	4792	4774	50	S	8333	1233	87
Bi	8333	1233	87	Sb	9363	203	98
Ca	6675	2891	70	Sc	5211	4355	54
Cd	6147	3419	64	Se	1658	7908	17
Co	6324	3242	66	Sn	5362	4204	56
Cr	6325	3241	66	Sr	6325	3241	66
Cu	9566	0	100	Ta	5211	4355	54
Fe	8328	1238	87	Te	2663	6903	28
Ga	5797	3769	61	Ti	5797	3769	61
K	6325	3241	66	V	5797	3769	61
La	5211	4355	54	W	5362	4204	56
Li	5362	4204	56	Y	5211	4355	54
Mg	5845	3721	61	Zn	9566	0	100
Mn	6673	2893	70	Zr	5211	4355	54
Mo	9216	350	96				

KSK was drilling at the time of the ME investigation and samples were still being processed at the laboratory. Although incomplete, H&A considers that there is sufficient data to investigate the element associations and that the additional data from shallow holes being drilled by KSK would not significantly alter the finding from this evaluation or from the interpretations of the spatial evaluation.

1.2.2 Data population distributions for elements

- Be, Nb, Sb, Se, Sn, Ta, Te, W: almost entirely at or below detection. These elements omitted from the analysis
- Ag, Bi, Ti, Zr: predominantly at or below detection. All but Ag omitted from the analysis

- Au, Cd, La, Li, Mo, Y: mostly at or below detection. Samples above detection are strongly positively skewed which persists following log10 conversion. Element associations reviewed and only Au and Y removed from analysis.
- Al, Fe, Ga, K, S, V: Gaussian distribution observed in raw data. Raw data included in investigation.
- Co, Ni, P, Sc, Sr, Zn: Gaussian distribution observed in log10 converted data. Log10 converted data used in investigation.
- As, Ba, Ca, Cr, Cu, Mg, Mn, Na, Pb: Log10 converted data shows two data-distribution populations for these elements. Reasons for populations investigated. Log10 converted data used in investigation.

Population distributions are included at Section 2.

1.2.3 Preliminary PCFA

Investigations confirmed decision to omit elements with poor statistical distributions and low coverage.

1.2.4 PCFA investigation

Findings for three investigations are:

1. Utilising maximum number of elements (R1):
    - 27 elements (Ag, Al, As, Ba, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, Mg, Mn, Mo, Na, Ni, Pb, S, V, Zn, La, Li, P, Sc, Sr, Ti),
    - 4202 samples,
    - Ag, Ba, Cr, Mo show low squared multiple correlation meaning that they do not correlate well with the other elements. These elements still included as they are significant wrt mineralisation, alteration and lithological interpretations,
    - Eight associations (factors) describe the total variance of the dataset. Cu loads into factors 5 and 7. The associations for Cu make sense wrt the styles of mineralisation within the area (F5 being the main mineralisation delineated by the drilling and F7 a possible porphyry signature, F3 is likely to reflect the pyritic alteration/veining event):
        - R1-F1: Sr_Na_Ti_Ca_P_La_(Ni)
        - R1-F2: Sc_Al_Mn_Mg_Li_V_Ga_(Ba_Zn)
        - R1-F3: Cr_Co_Fe_S_(Ga_V_As)
        - R1-F4: K_Al_As
        - <u>R1-F5: Ag_Pb_(Ba_Cu_As_Fe_)</u>
        - R1-F6: Cd_Zn
        - <u>R1-F7: Cu_(Mo_Pb_As)</u>
        - R1-F8: Ni_Co
2. Optimizing spatial and population coverage without significantly compromising element coverage (R2):

- 22 elements (Ag, Al, As, Ba, Ca, Co, Cr, Cu, Fe, Ga, K, Mg, Mn, Mo, Na, Ni, Pb, S, V, Zn, Sr, Ti),
- Cd, La, Li, P, Sc removed from R1 analysis, resulting in an increased coverage to 5792 samples,
- Ag, Ba, Cr, Mo, Ni, Zn show low squared multiple correlation meaning that they do not correlate well with the other elements. These elements still included as they are significant wrt mineralisation, alteration and lithological interpretations,
- Seven associations (factors) describe the total variance of the dataset. Cu loads into factors 1 and 5. These two factors are moderately correlated (r = 0.45). Attempts to forcibly combine these factors were not successful. The associations for Cu make sense wrt the styles of mineralisation within the area (F1 can be viewed as a chalcocite-covellite dominant association and F5 a chalcopyrite/pyrite event):
    - R2-F1: Ag_Pb_Cu_As_(Fe_S)
    - R2-F2: Mg_Mn_Al_V_Zn_(Ni_Ga)
    - R2-F3: Sr_Na_Ti_Ca_Ni
    - R2-F4: K_Al
    - R2-F5: Co_Fe_S_(Ga_As_Cu_V)
    - R2-F6: Cr_Ca
    - R2-F7: Ga_Ba

3. Restricting analysis to those samples containing >500ppm Cu (Cu500):
    - 14 elements (Cu, Ag, S, As, Fe, Ga, Mg, Mn, Na, Pb, Sr, K, V, Zn),
    - 1771 of the 2771 samples with >500ppm Cu,
    - Pb, Cu, Ag, As, Ga, Sr show low squared multiple correlation suggesting that they do not correlate well with the other elements however this is unlikely, and the real reason for these elements not being readily associated is that the subsetting has illogically truncated the lower distribution of the dataset, generating poor input data populations for the analysis. These elements still included as they are significant wrt mineralisation, alteration and lithological interpretations,
    - Five associations (factors) describe the total variance of the dataset. Cu loads into factors 2 and 4. These factors are moderately correlated (r = 0.46):
        - Cu500-F1-Mg_Mn_V_Zn_(Ag)
        - Cu500-F2-Ag_As_Cu_Pb_Zn_(S)
        - Cu500-F3-Na_K_Sr
        - Cu500-F4-S_Fe_(Ga_Cu)
        - Cu500-F5-Ga_(Pb_V)

1.2.5 Copper Mineralisation – Additive Indices

The following 12 elements show an association with copper mineralisation:

- +Ag +As -Ca +Co +Cu +Fe -Mg -Mn -Na +Pb +S –Zn: those elements with "+" symbol are positively associated and those with "-" symbol are negatively associated (i.e. are depleted in zones of high copper mineralisation – wrt the entire dataset).
- The following table depicts the associations:

Table 2: Example, Hole BK034: Elements Associated with Copper Mineralisation.

HOLEID	FROM	TO	Ag	As	Ca	Co	Cu	Fe	Mg	Mn	Na	Pb	S	Zn
BK034	129.60	132.60	0.25	18.00	0.10	21.00	2569.00	7.12	0.07	39.00	0.04	480.00	7.36	9.00
BK034	132.60	135.60	0.25	26.00	0.15	19.00	1820.00	7.14	0.07	71.00	0.03	740.00	7.11	9.00
BK034	135.60	138.60	2.15	99.00	0.34	37.00	23400.00	22.02	0.05	60.00	0.01	380.00	10.00	70.00
BK034	138.60	141.60	0.62	94.00	0.38	22.00	7893.00	16.40	0.05	73.00	0.02	680.00	10.00	42.00
BK034	141.60	144.60	0.25	40.00	0.10	18.00	1780.00	8.52	0.05	34.00	0.03	580.00	8.92	12.00
BK034	144.60	147.60	0.25	44.00	0.19	18.00	1960.00	9.45	0.08	103.00	0.04	660.00	8.88	13.00
BK034	147.60	150.60	0.25	23.00	0.21	18.00	880.00	6.90	0.23	76.00	0.03	360.00	6.90	22.00
BK034	150.60	153.60	0.54	23.00	0.11	21.00	720.00	5.96	0.06	52.00	0.03	380.00	5.89	2.50
BK034	153.60	156.10	0.25	39.00	0.15	19.00	1620.00	9.35	0.06	53.00	0.04	440.00	9.62	22.00
BK034	156.10	159.60	0.25	47.00	0.13	23.00	1180.00	7.45	0.07	47.00	0.05	500.00	7.52	31.00
BK034	159.60	162.80	0.25	34.00	0.29	21.00	1940.00	8.67	0.09	54.00	0.05	500.00	8.96	14.00
BK034	162.80	165.60	0.72	33.00	2.48	18.00	3337.00	9.08	0.77	360.00	0.09	156.00	9.19	71.00
BK034	165.60	168.60	0.25	9.00	3.28	7.00	197.00	4.10	1.32	980.00	0.12	51.00	0.15	95.00
BK034	168.60	171.60	0.25	4.00	4.14	8.00	28.00	4.30	1.25	1040.00	0.14	17.00	0.10	84.00
BK034	171.60	174.60	0.62	130.00	2.56	12.00	5409.00	6.32	0.77	680.00	0.10	64.00	4.80	194.00
BK034	174.60	177.60	0.87	164.00	0.15	28.00	6289.00	11.07	0.06	47.00	0.04	158.00	10.00	145.00
BK034	177.60	180.60	2.42	200.00	0.14	21.00	41800.00	14.35	0.04	61.00	0.03	420.00	10.00	133.00
BK034	180.60	183.60	0.73	73.00	0.17	26.00	9071.00	14.50	0.05	72.00	0.02	460.00	10.00	33.00
BK034	183.60	186.70	0.93	56.00	0.10	20.00	18500.00	21.94	0.03	71.00	0.01	540.00	10.00	40.00
BK034	186.70	189.70	4.24	108.00	0.15	20.00	32100.00		0.03	340.00	0.01	420.00	10.00	260.00
BK034	189.70	192.70	0.79	85.00	0.20	17.00	11500.00	22.15	0.05	89.00	0.01	400.00	10.00	55.00
BK034	192.70	195.70	0.25	33.00	0.07	16.00	2800.00	11.85	0.04	53.00	0.02	460.00	10.00	20.00
BK034	195.70	198.70	0.25	16.00	0.08	18.00	3420.00	13.77	0.05	54.00	0.02	340.00	10.00	27.00
BK034	198.70	201.70	0.25	32.00	0.11	18.00	4625.00	8.93	0.05	53.00	0.03	136.00	8.95	23.00
BK034	201.70	204.70	0.25	35.00	0.38	18.00	3617.00	10.19	0.04	75.00	0.02	33.00	10.00	17.00
BK034	204.70	207.70	0.25	148.00	0.36	18.00	7630.00	9.43	0.04	44.00	0.03	40.00	9.91	120.00
BK034	207.70	210.70	0.25	155.00	0.45	22.00	5851.00	8.48	0.04	82.00	0.02	43.00	8.65	88.00
BK034	210.70	213.70	0.25	41.00	0.45	16.00	5021.00	7.80	0.06	61.00	0.03	17.00	8.14	23.00
BK034	213.70	216.70	0.25	33.00	0.54	18.00	6135.00	7.45	0.05	69.00	0.04	18.00	7.53	58.00
BK034	216.70	219.70	0.25	42.00	0.67	19.00	8639.00	9.32	0.05	54.00	0.03	19.00	9.90	36.00
BK034	219.70	222.70	0.68	44.00	0.37	20.00	12800.00	7.51	0.12	68.00	0.02	14.00	8.27	200.00
BK034	222.70	225.70	0.25	24.00	0.25	16.00	6371.00	8.36	0.38	124.00	0.03	10.00	8.30	93.00
BK034	225.70	228.70	0.25	20.00	0.22	18.00	6826.00	7.63	0.49	143.00	0.03	12.00	7.26	93.00
BK034	228.70	231.70	0.25	20.00	0.12	14.00	7347.00	9.25	1.10	320.00	0.02	9.00	8.48	165.00
BK034	231.70	234.70	0.25	18.00	0.18	13.00	2562.00	11.87	3.18	800.00	0.01	11.00	10.00	340.00
BK034	234.70	237.70	0.25	12.00	0.21	13.00	2322.00	9.79	4.55	840.00	0.02	9.00	7.17	560.00
BK034	237.70	240.70	0.25	11.00	0.15	13.00	320.00	8.58	3.60	580.00	0.02	9.00	7.17	580.00
BK034	240.70	243.70	0.25	9.00	0.12	16.00	80.00	8.63	1.22	280.00	0.03	7.00	8.00	360.00
BK034	243.70	246.70	0.25	8.00	0.18	19.00	1080.00	7.29	3.65	580.00	0.02	2.50	6.12	440.00
BK034	246.70	249.70	0.25	3.00	0.24	14.00	37.00	5.33	3.42	580.00	0.02	2.50	4.25	500.00
BK034	249.70	252.70	0.25	7.00	0.21	15.00	41.00	7.02	1.20	260.00	0.03	9.00	7.03	740.00
BK034	252.70	255.70	0.25	9.00	0.17	14.00	27.00	11.64	0.23	99.00	0.03	11.00	10.00	125.00
BK034	255.70	258.70	0.25	6.00	0.16	10.00	59.00	7.67	2.55	640.00	0.03	24.00	6.27	280.00
BK034	258.70	261.70	0.25	3.00	0.22	7.00	10.00	4.68	2.42	600.00	0.03	7.00	3.63	280.00
BK034	261.70	264.70	0.25	9.00	0.70	13.00	660.00	9.44	2.31	580.00	0.04	10.00	8.98	720.00
BK034	264.70	267.70	0.25	9.00	0.21	20.00	17.00	5.97	0.99	194.00	0.05	11.00	5.70	500.00
BK034	267.70	270.70	0.25	10.00	0.33	12.00	16.00	6.42	0.72	198.00	0.06	9.00	6.63	142.00
BK034	270.70	273.70	0.25	9.00	0.32	14.00	15.00	8.83	0.81	300.00	0.04	8.00	7.52	300.00
BK034	273.70	276.70	0.25	7.00	0.27	11.00	10.00	7.05	2.02	680.00	0.05	6.00	2.95	220.00
BK034	276.70	279.70	0.50	12.00	0.23	19.00	14.00	23.05	0.36	195.00	0.05	11.00	10.00	240.00
BK034	279.70	282.70	0.25	21.00	0.26	21.00	14.00	18.72	0.79	188.00	0.04	12.00	10.00	360.00
BK034	282.70	285.70	0.25	4.00	0.88	12.00	9.00	3.71	0.77	185.00	0.05	7.00	3.52	109.00
BK034	285.70	288.70	0.25	8.00	0.56	20.00	14.00	4.47	0.38	191.00	0.06	8.00	4.07	83.00

- Spatial association is also observed (see figures at Section 3)
- An additive index score was generated by adding standard-scores for each of the positively correlated elements and adding the standard-scores * -1 for each of the negatively correlated elements. The scores were then weighted to account for the irregular coverage of elements between samples of different generations (Adjusted_AddInd = Raw_AddInd/count_elements*12). Only those samples with 5 or more elements (of the 12 associated elements) were selected and the AddInd generated.
- A threshold value of AddInd >=6 correlates well with copper mineralisation.

- Two additive binary Indices were generated. The first where only elements with a standard-score >0 were included (of the 12 associated elements) and the second where only elements with a standard-score of >1 were included. The binary index reduces the influence of extreme values by assigning a value of 1 to those elements that meet the criteria and a value of 0 to those that don't. The binary scores for all 12 elements are added to produce the additive binary index (again the scores were weighted to account for the irregular coverage of elements and only those samples with 5 or more elements included for generating scores.
- A threshold of >=9 (of 12) correlates well with copper mineralisation for the standard-score >0 AddBinaryInd and of >=3 for the standard-score >1 AddBinaryInd.

Figures showing the association of the factors scores and indices are presented at Section 3.

1.2.6 ME Association – Spatial Interpretation

The following figures present the distribution of the standard-score >1 AddBinaryInd. Similar patterns are observed with the factor analysis and other additive indices. Of note is:

- That there is a distinct and finite depth extent to the favorable associations, and that this boundary is relatively flat lying to gently dipping to the north-east.
- Higher positive associations are generally located at shallow depths (close to surface).
- Higher and broader development of positive associations is located generally on the eastern side of the three mineralised areas.
- Higher and broader development of positive associations is centred on structural complexity within interpreted thrust ramp environment.
- The geometry and trends in the associations are reflected in the intersection lineations of the two main thrust plan directions and suggest that mineralisation extends (or repeat centers of mineralisation exit) to the northeast.

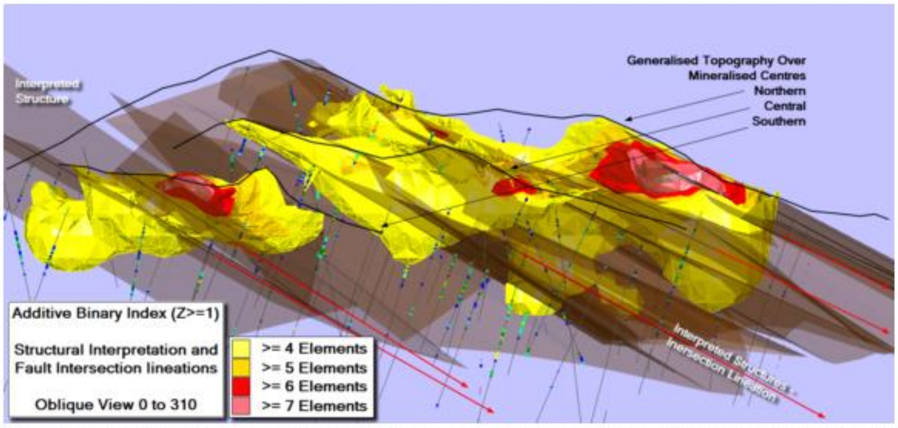

Figure 1: Additive Binary Index (standard-score >1) Implicit Modelling Grade Shells. View 00 to 310 degrees (at 090 degrees to interpreted structural intercept lineation, the suggested attenuation direction of copper mineralisation).

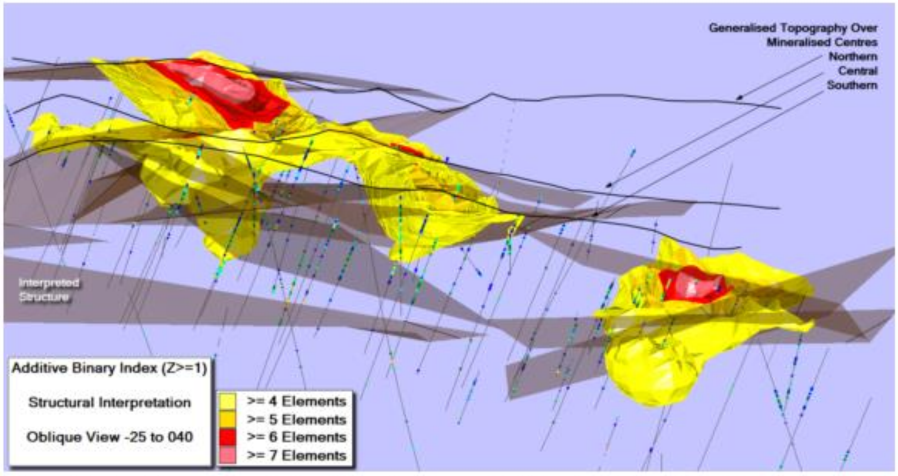

Figure 2: Additive Binary Index (standard-score >1) Implicit Modelling Grade Shells. View -25 to 040 degrees (along interpreted structural intercept lineation, the suggested attenuation direction of copper mineralisation).

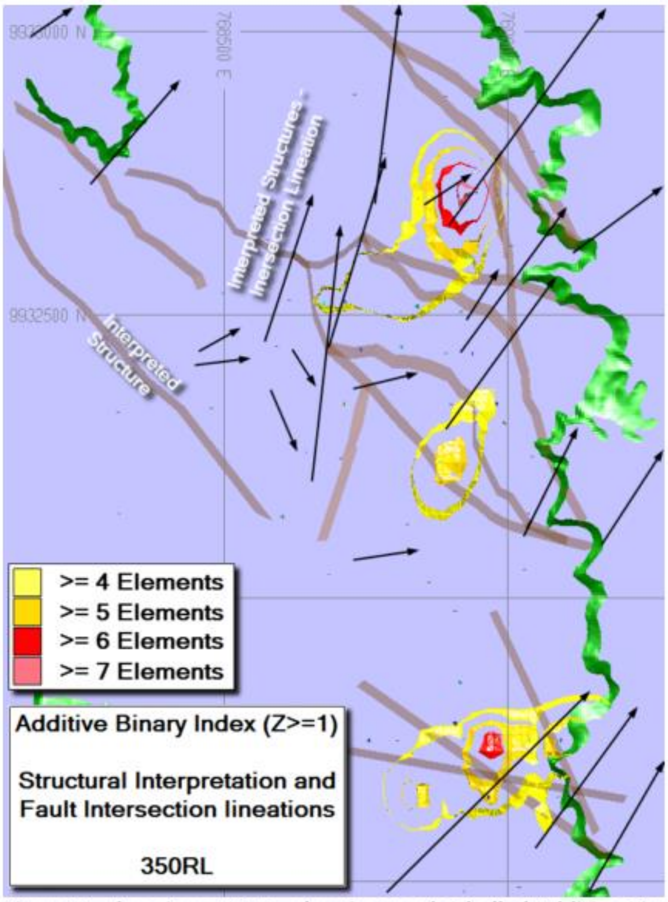

Figure 3: Plan view, 350RL: showing Grade Shelled Additive Binary Index (standard-score >=1), Interpreted Structures, Fault Intersection Lineations and Topography.

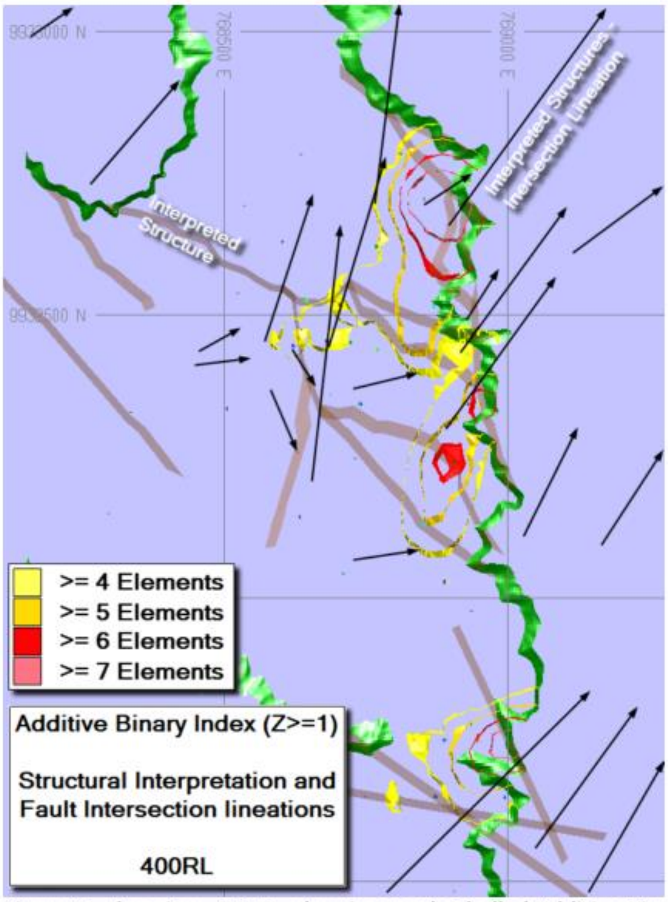

Figure 4: Plan view, 400RL: showing Grade Shelled Additive Binary Index (standard-score >=1), Interpreted Structures, Fault Intersection Lineations and Topography.

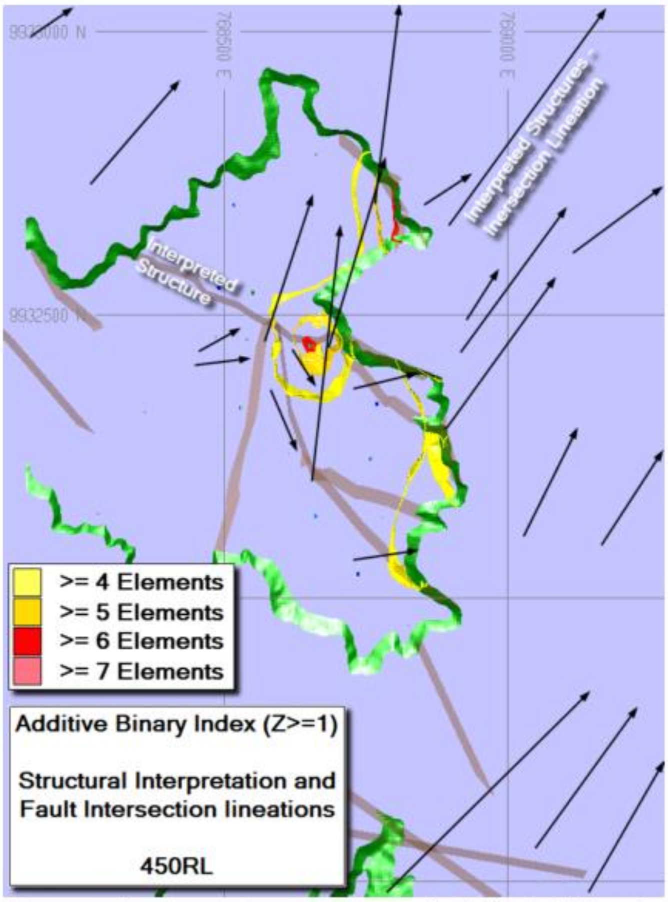

Figure 5: Plan view, 450RL: showing Grade Shelled Additive Binary Index (standard-score >=1), Interpreted Structures, Fault Intersection Lineations and Topography.

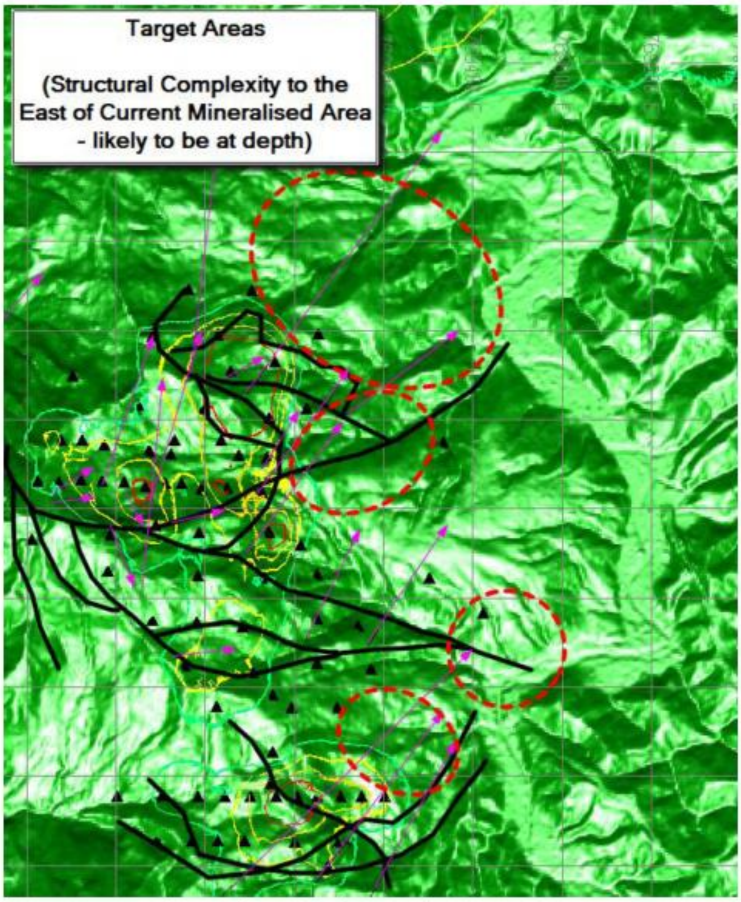

Figure 6: Extension and Proximal Mineralisation Target Areas. Generated from Multi-Element Association evaluation and interpreted thrust ramp environment mineralisation controls.

1.3 Recommendations

H&A recommends that:

- the interpretations and geometries developed in the multi-element assay analysis be utilized in guiding grade interpolation domaining in the upcoming resource estimate,
- KSK interrogate their existing database and undertake field investigations to assist in identifying mineralisation and drill targets to the east and northeast of the known mineralisation at BK.

2 Basic Statistics – ME Dataset

The following histograms present the data population distribution for the Multi-Element Dataset.

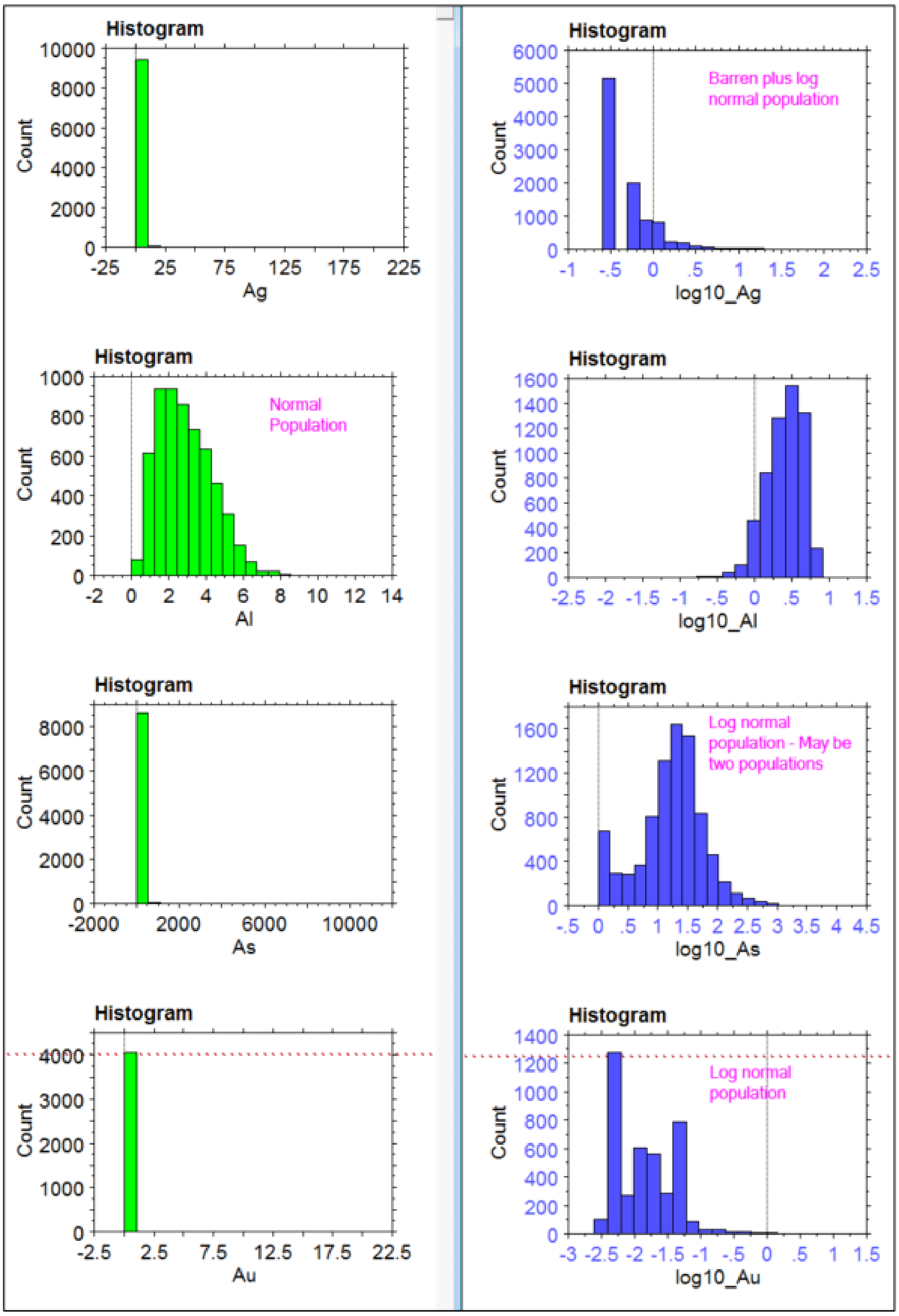

Figure 7: Multi-Element Histograms

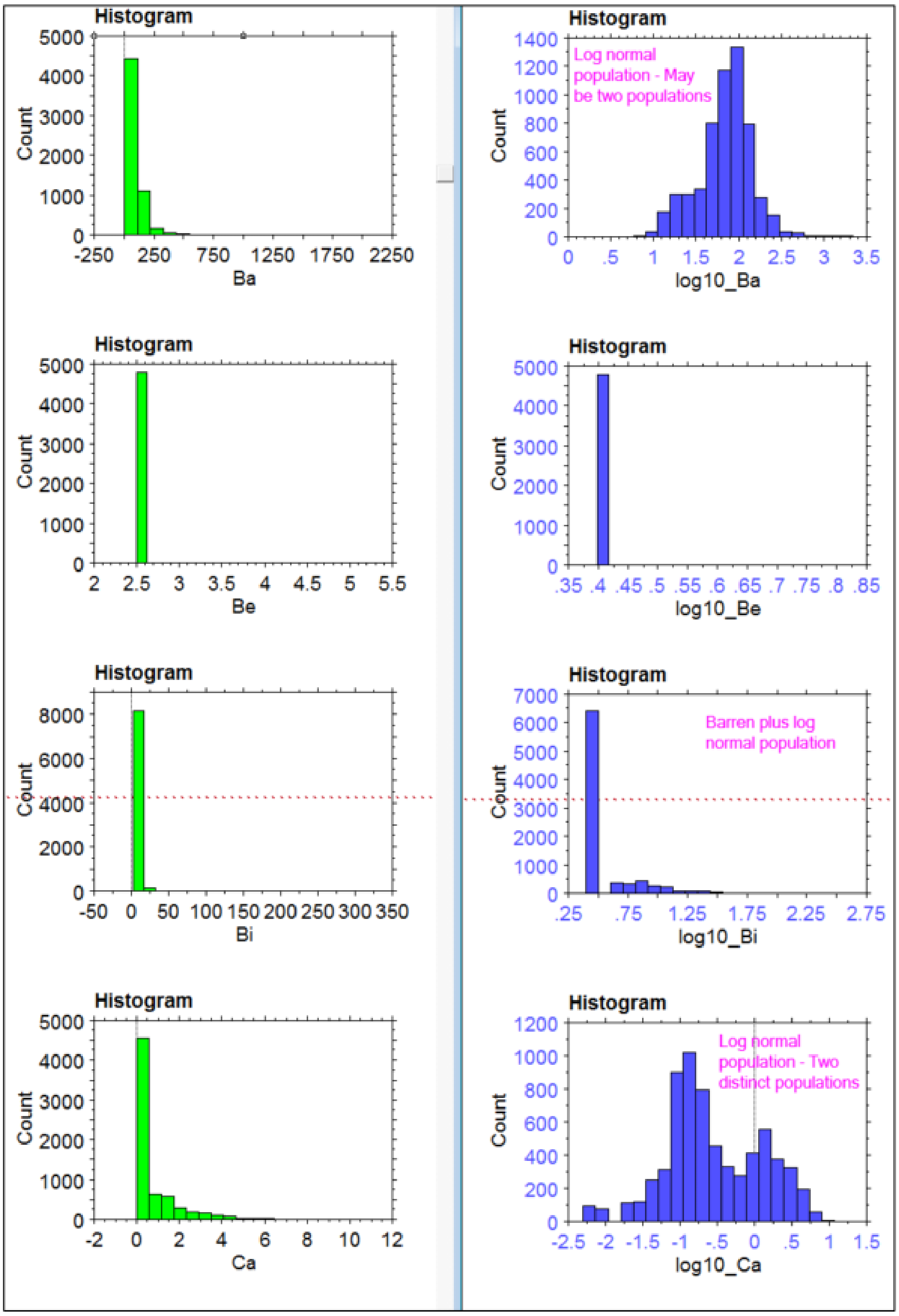

Figure 8: Multi-Element Histograms

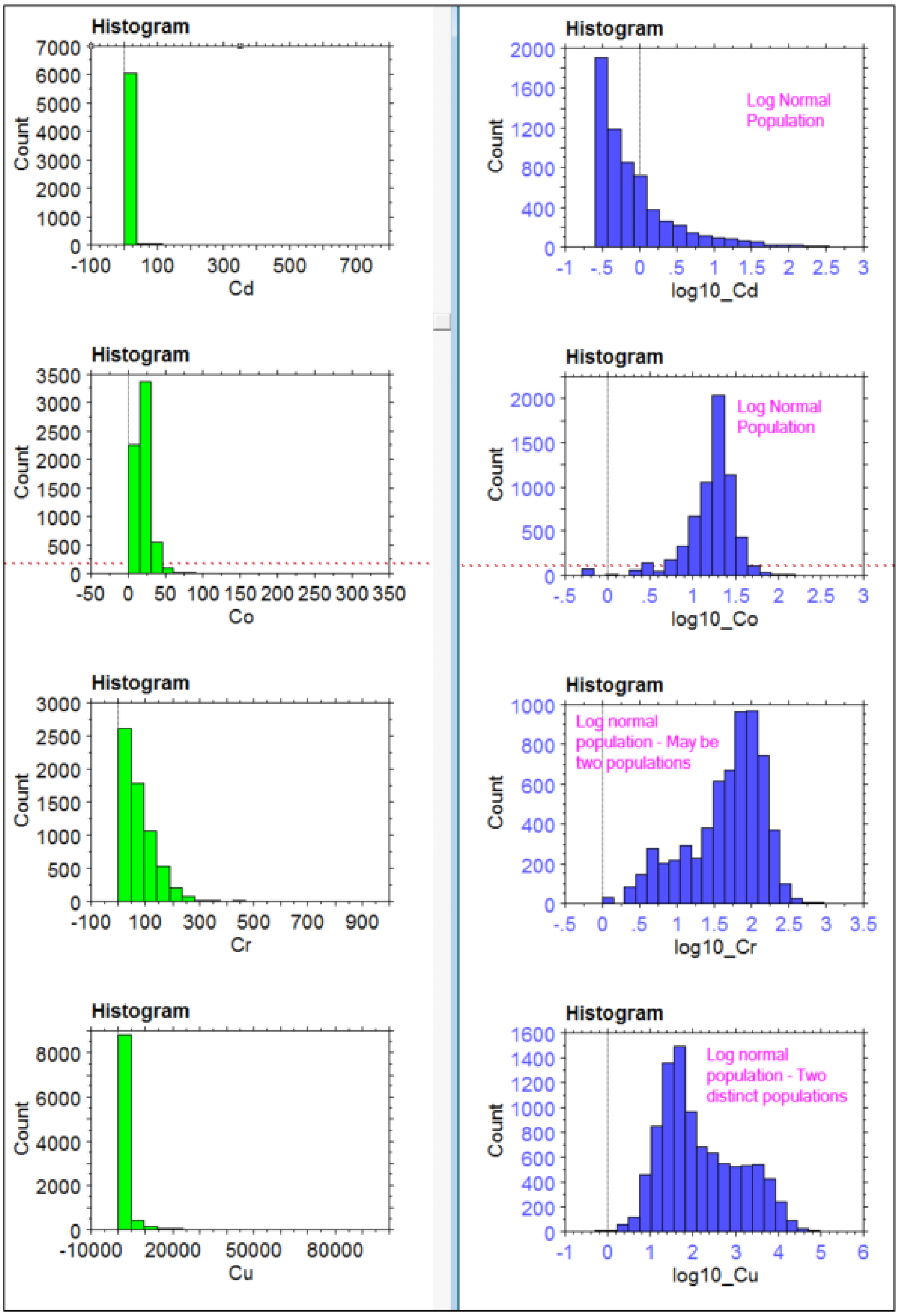

Figure 9: Multi-Element Histograms

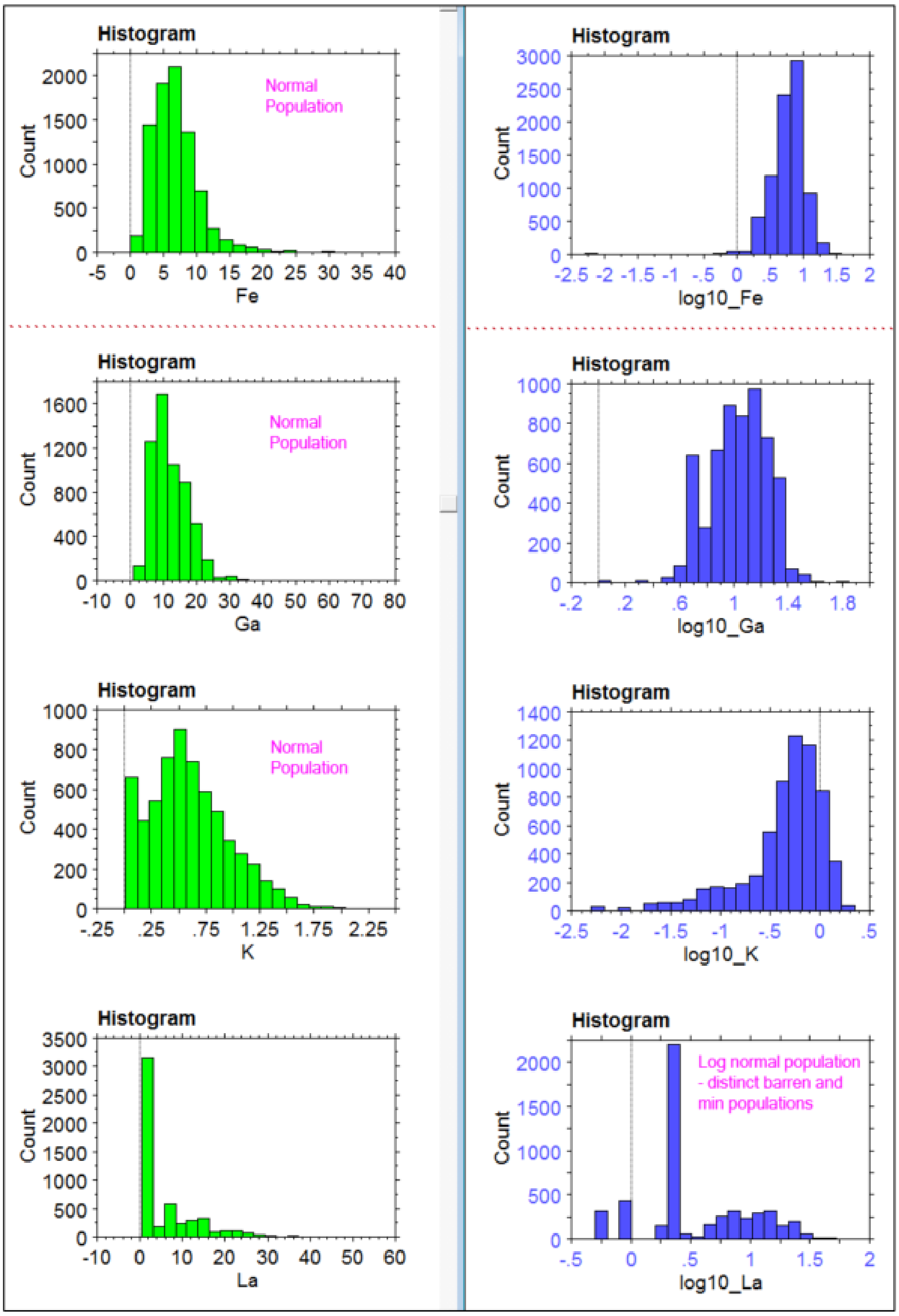

Figure 10: Multi-Element Histograms

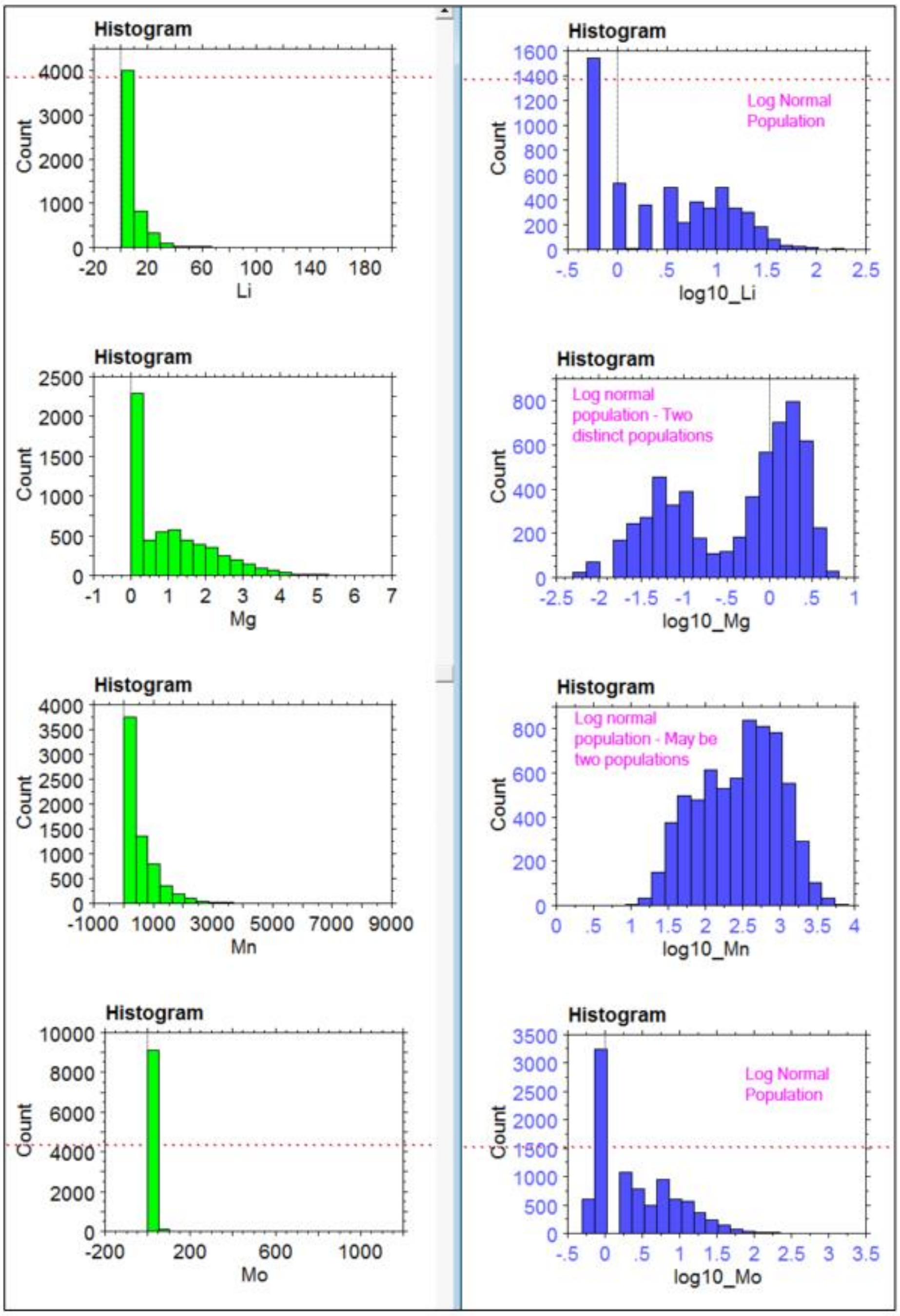

Figure 11: Multi-Element Histograms

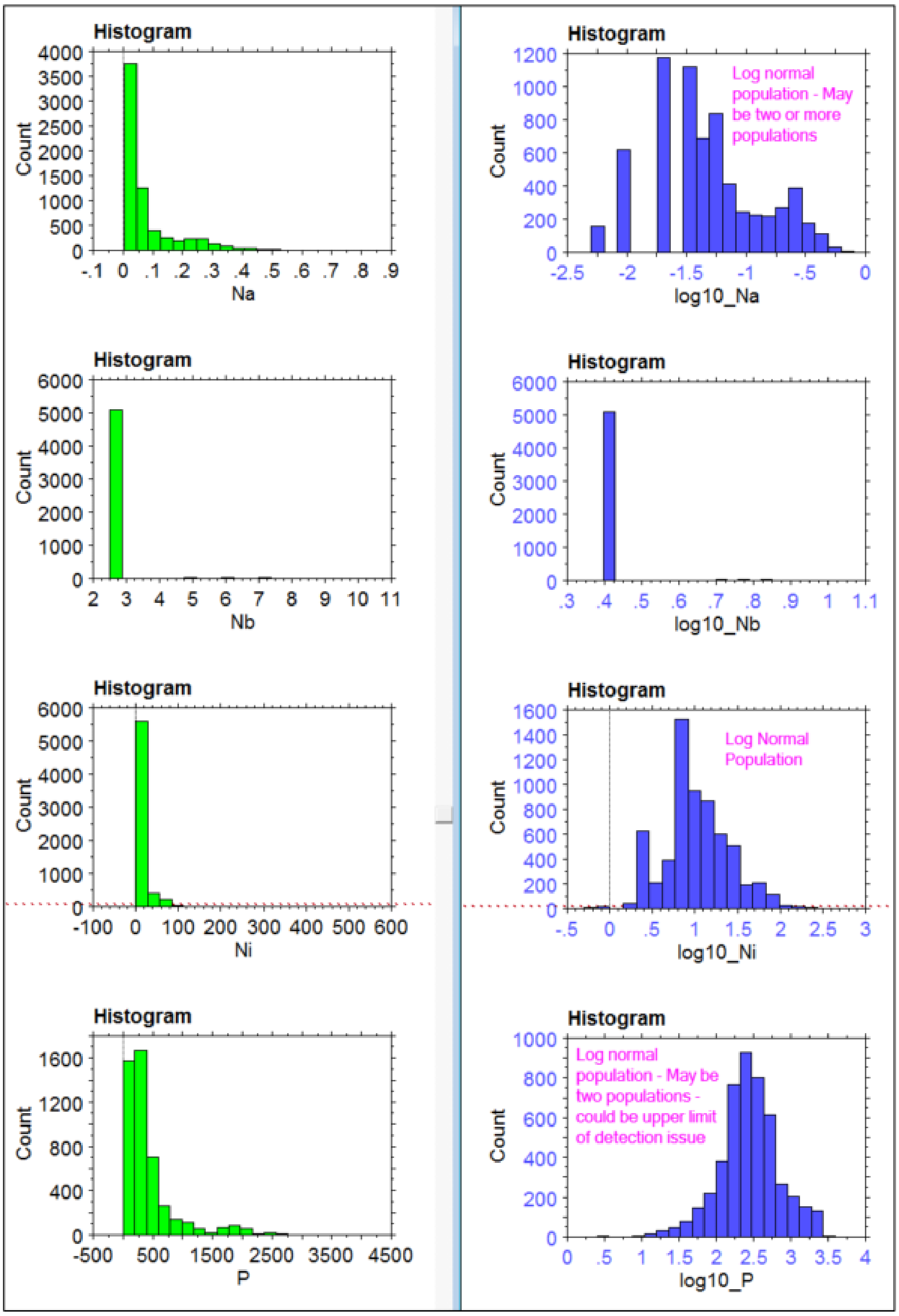

Figure 12: Multi-Element Histograms

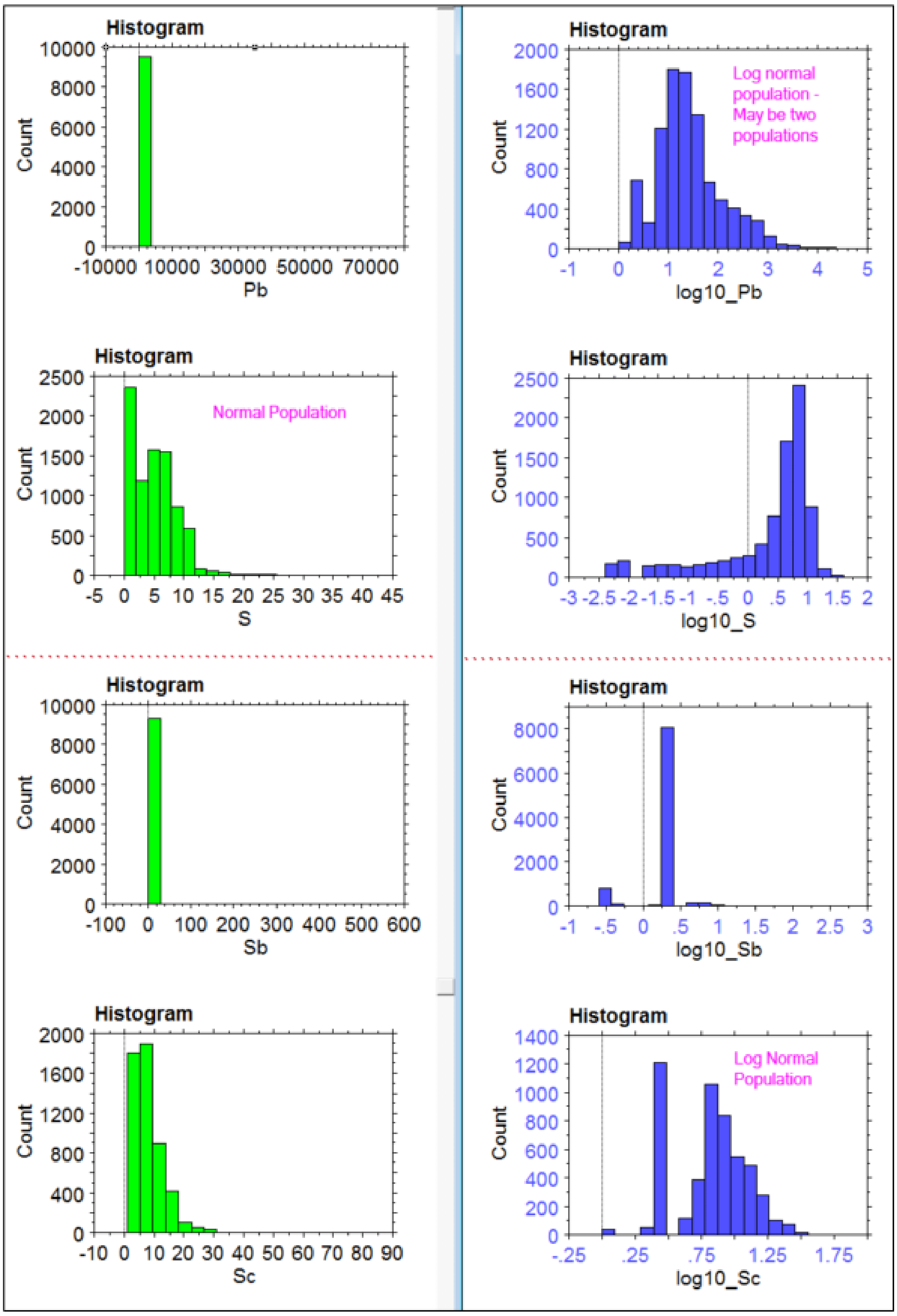

Figure 13: Multi-Element Histograms

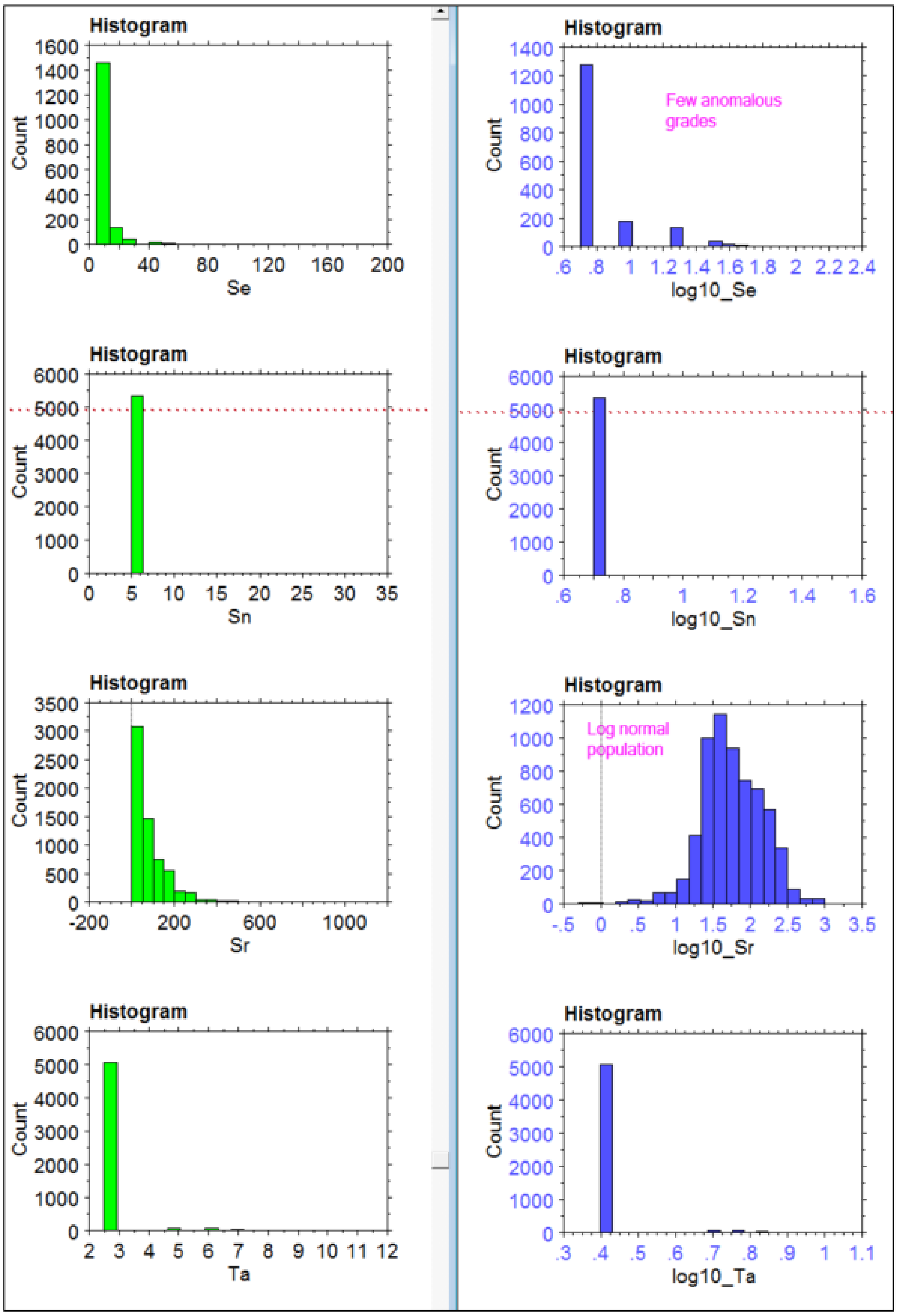

Figure 14: Multi-Element Histograms

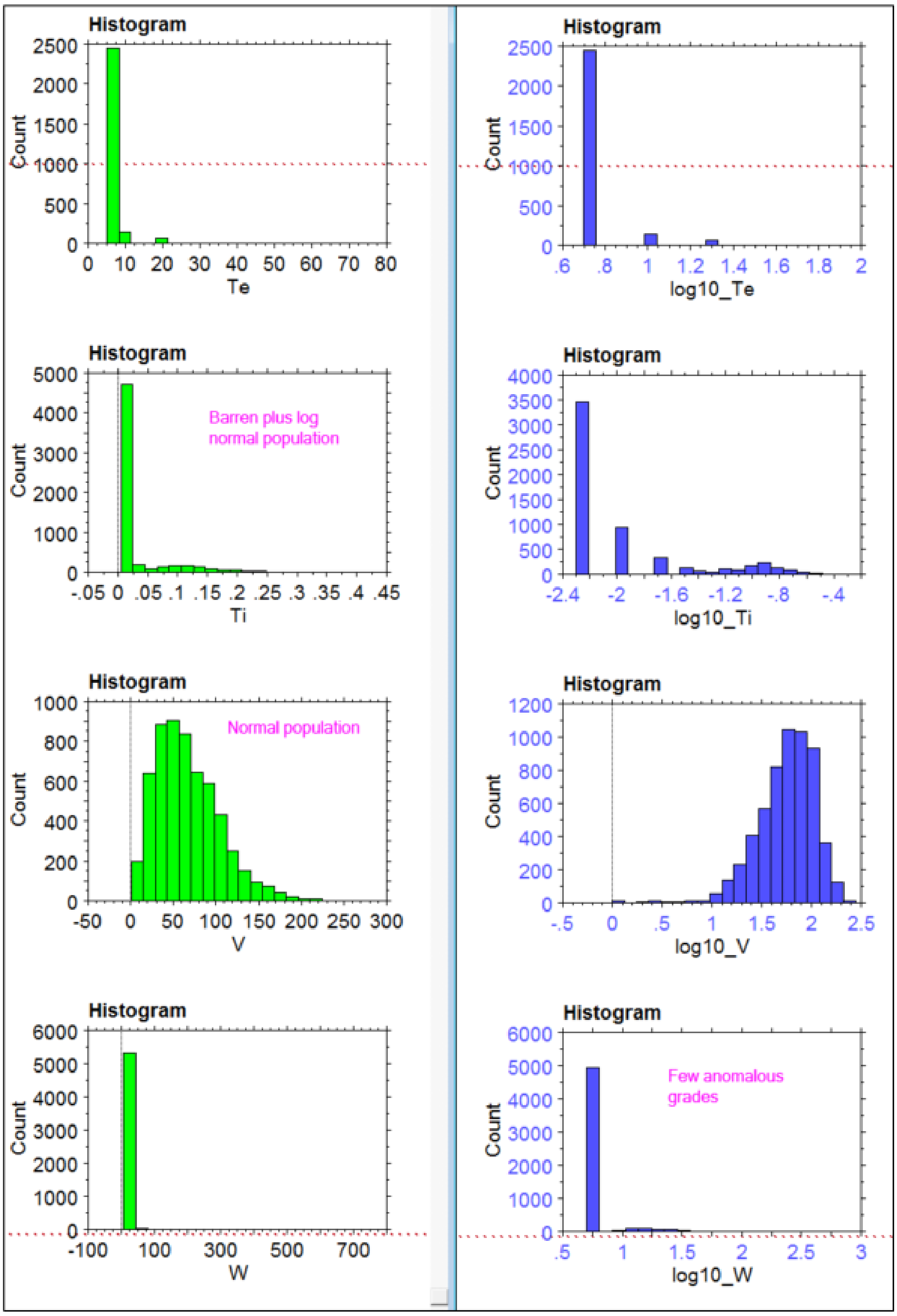

Figure 15: Multi-Element Histograms

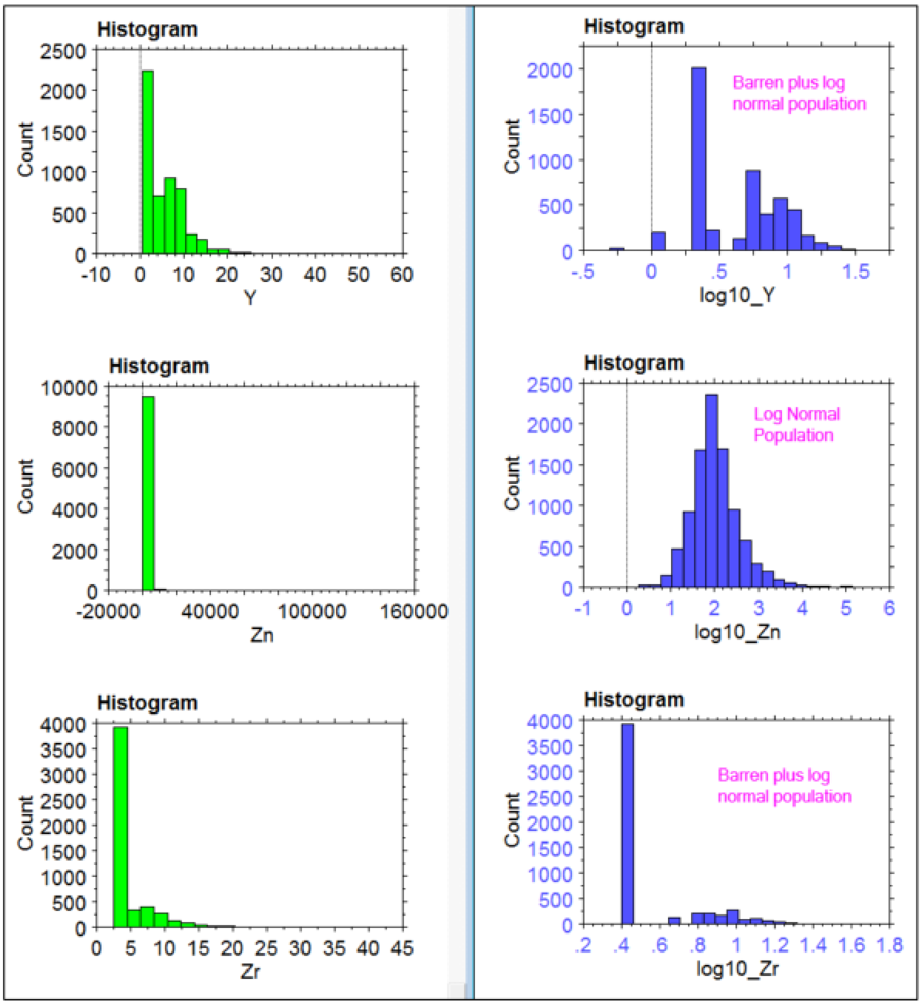

Figure 16: Multi-Element Histograms

3 Elements and Factors Associated with Copper Mineralisation

The following figures depict the statistical and spatial association of those elements associated with copper mineralisation.

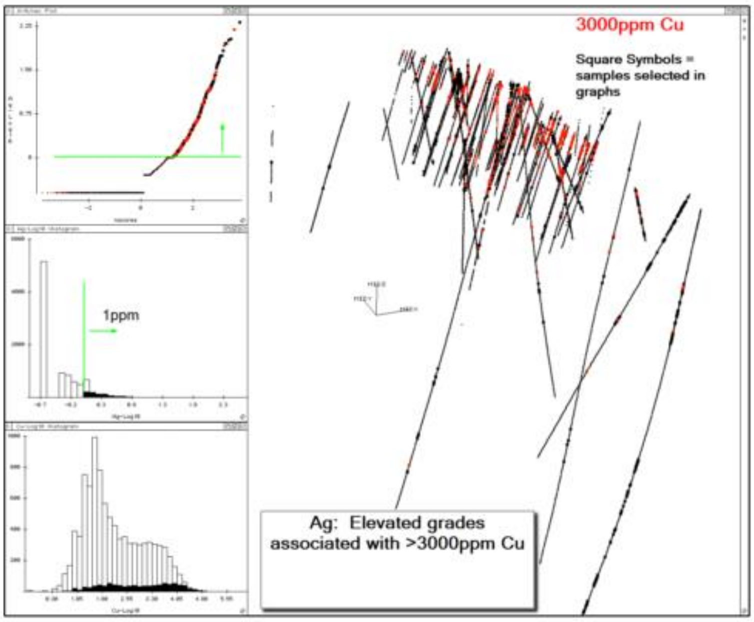

Figure 17: Ag-Cu Relationship

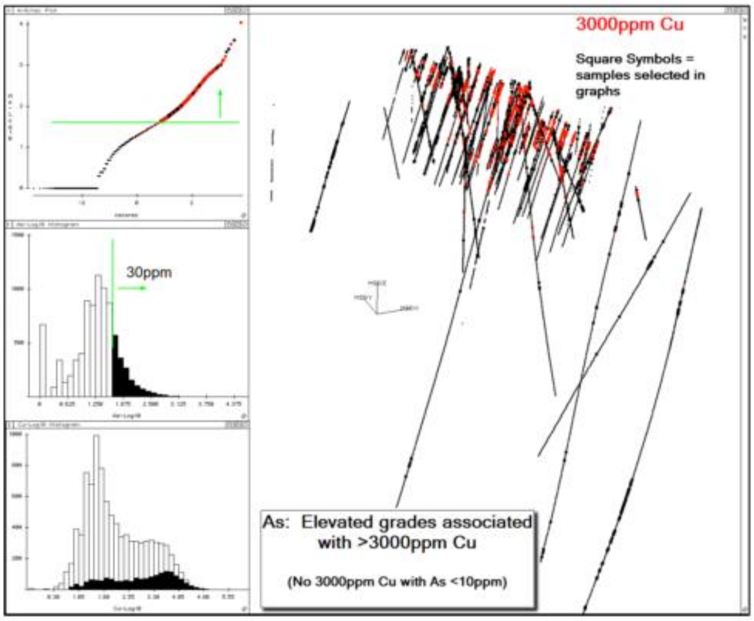

Figure 18: As-Cu Relationship

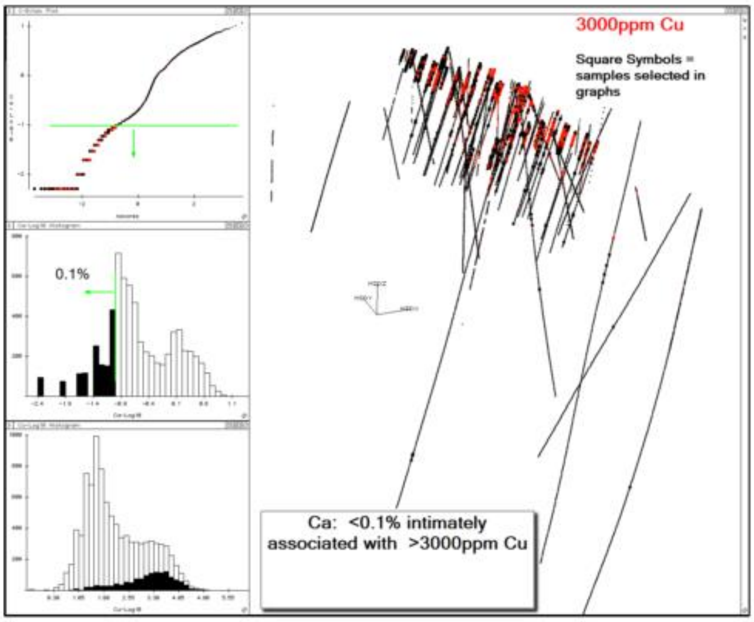

Figure 19: Low_Ca-Cu Relationship

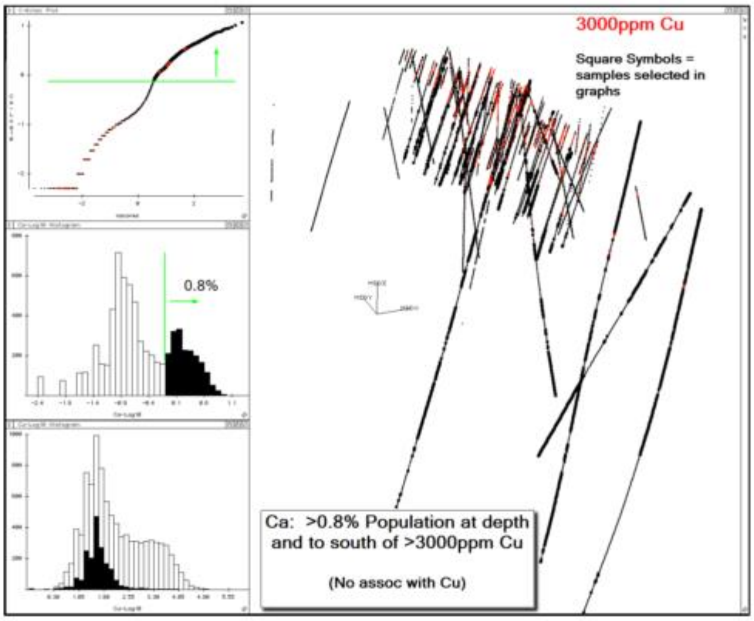

Figure 20: High_Ca-Cu Relationship

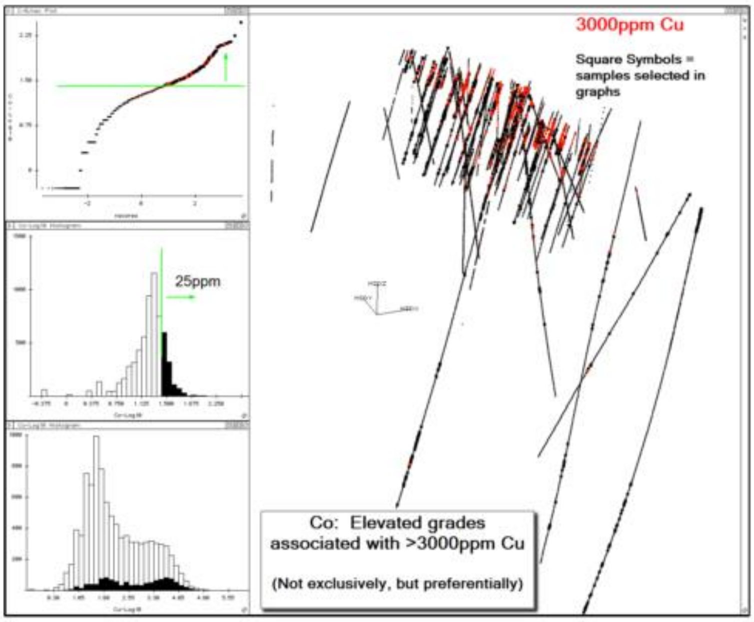

Figure 21: Co-Cu Relationship

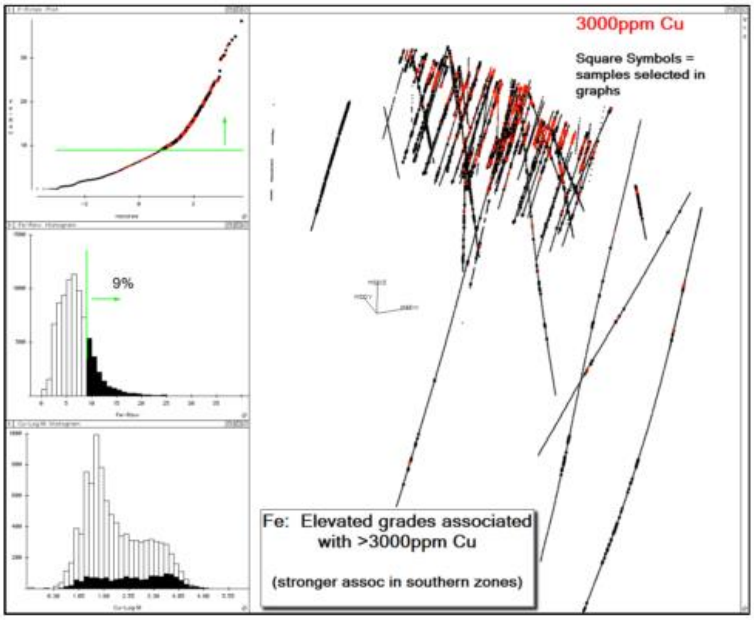

Figure 22: Fe-Cu Relationship

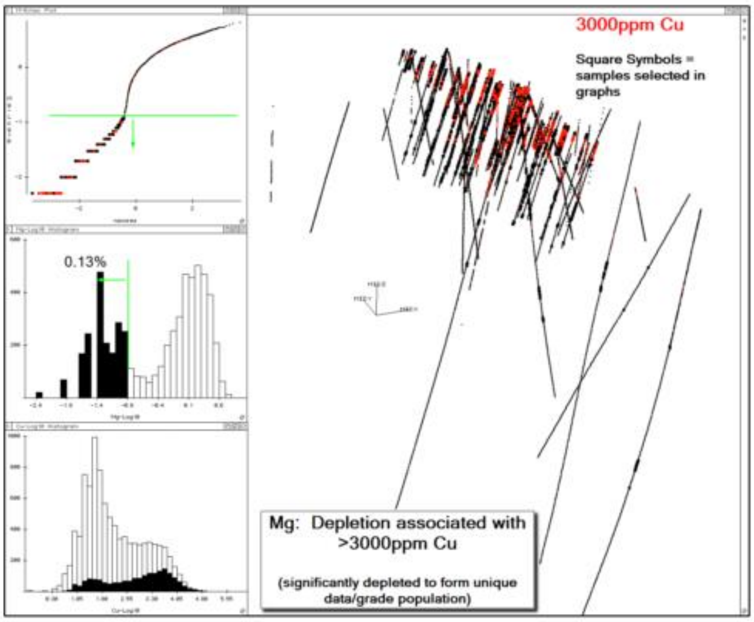

Figure 23: Mg-Cu Relationship

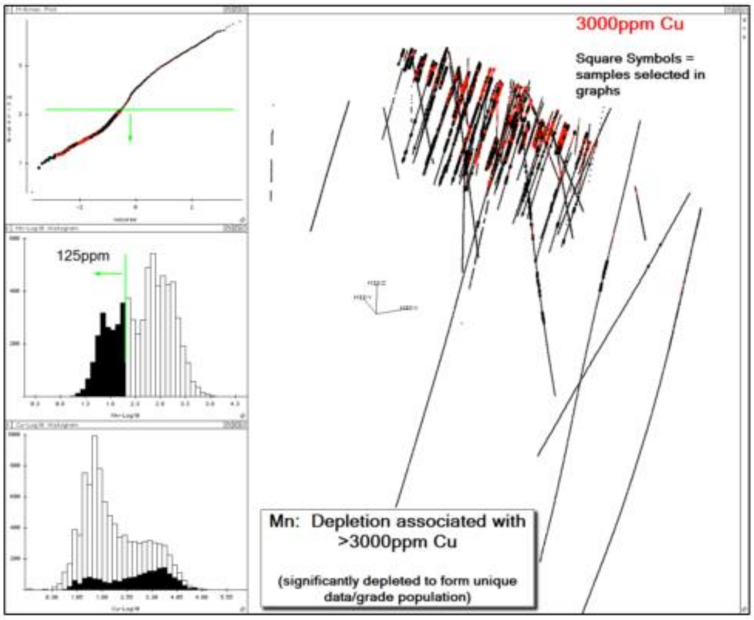

Figure 24: Mn-Cu Relationship

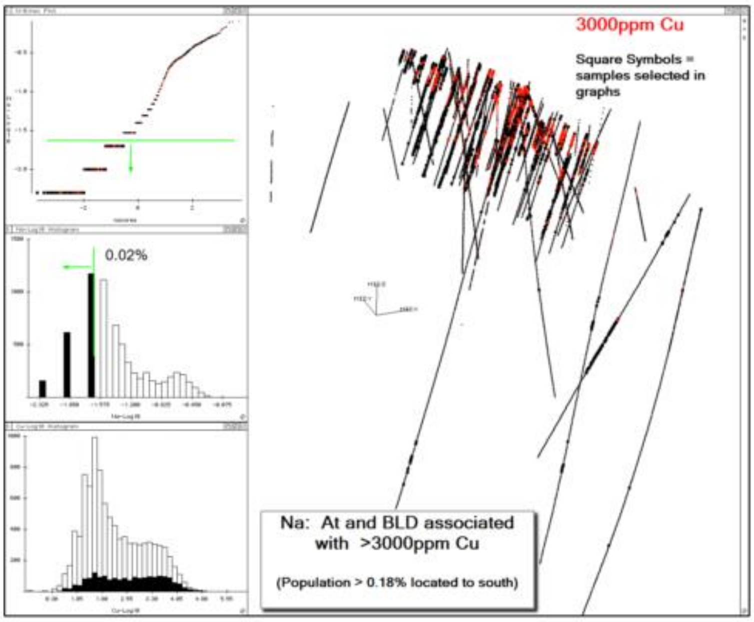

Figure 25: Na-Cu Relationship

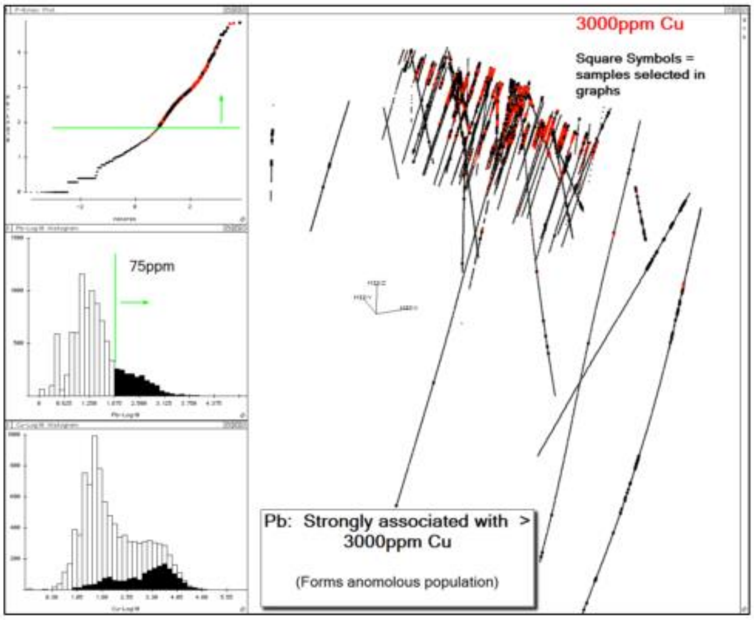

Figure 26: Pb-Cu Relationship

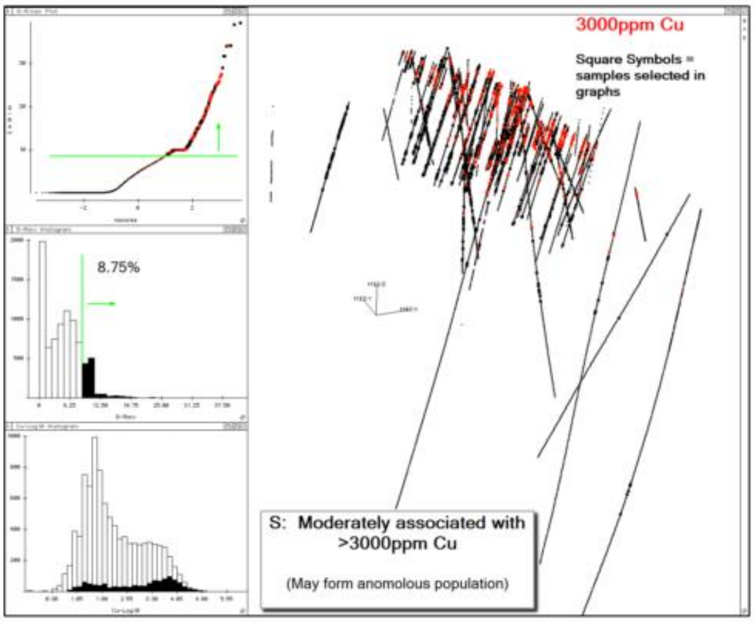

Figure 27: S-Cu Relationship

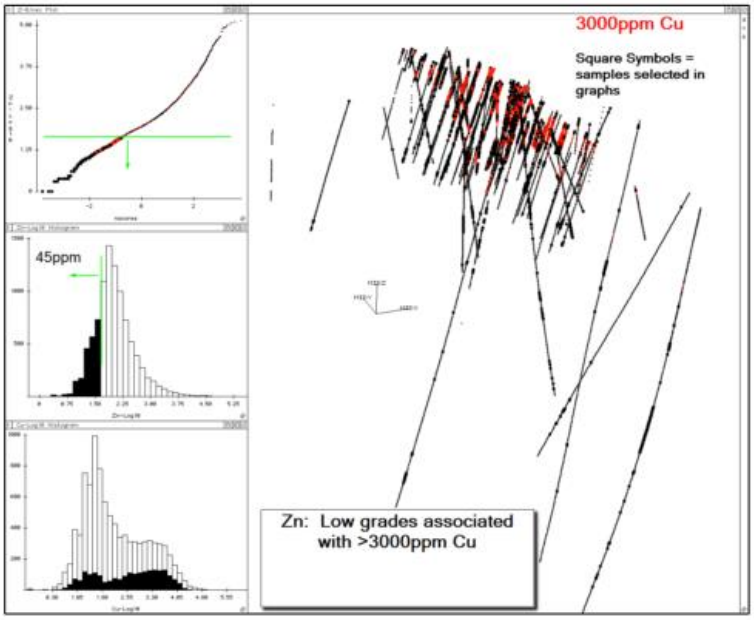

Figure 28: Zn-Cu Relationship

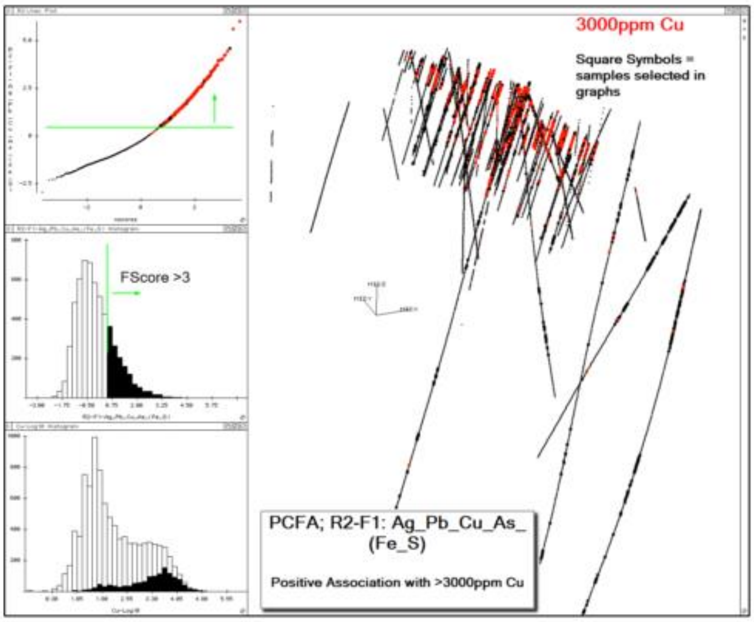

Figure 29: PCFA; R2_F1-Cu Relationship

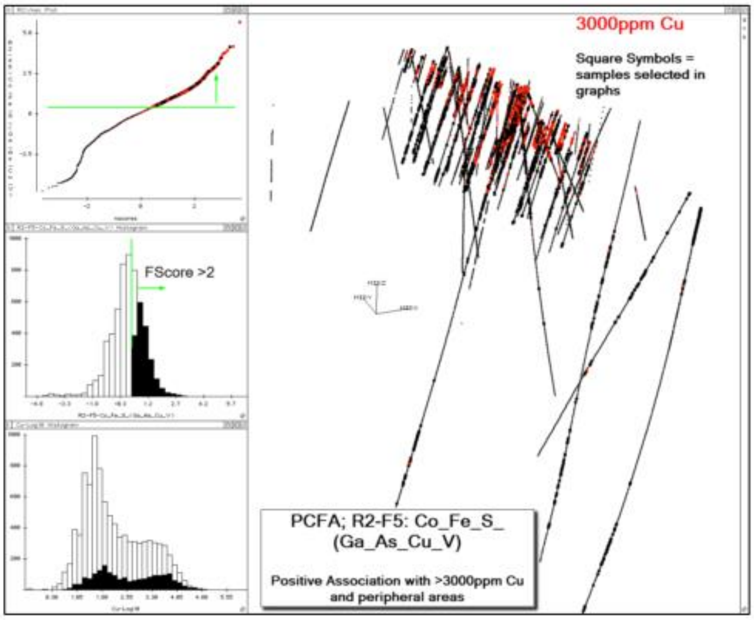

Figure 30: PCFA; R2_F5-Cu Relationship

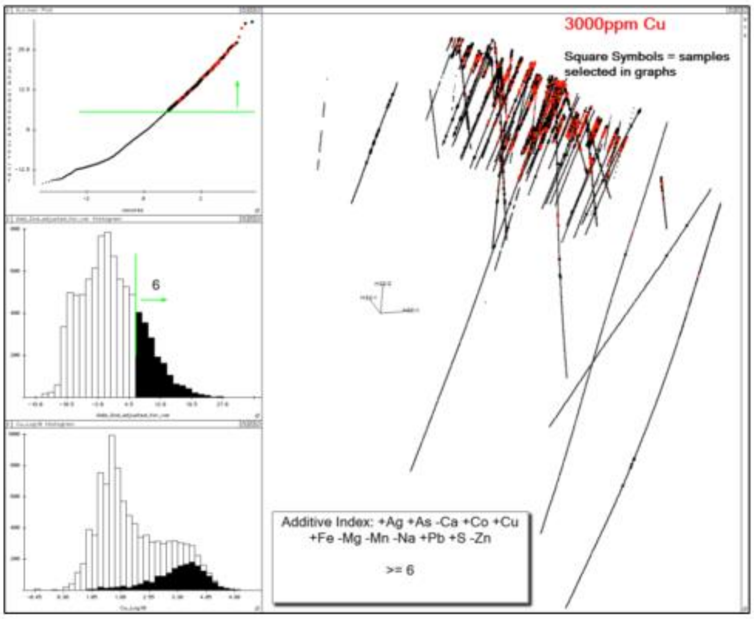

Figure 31: AddIndex-Cu Relationship

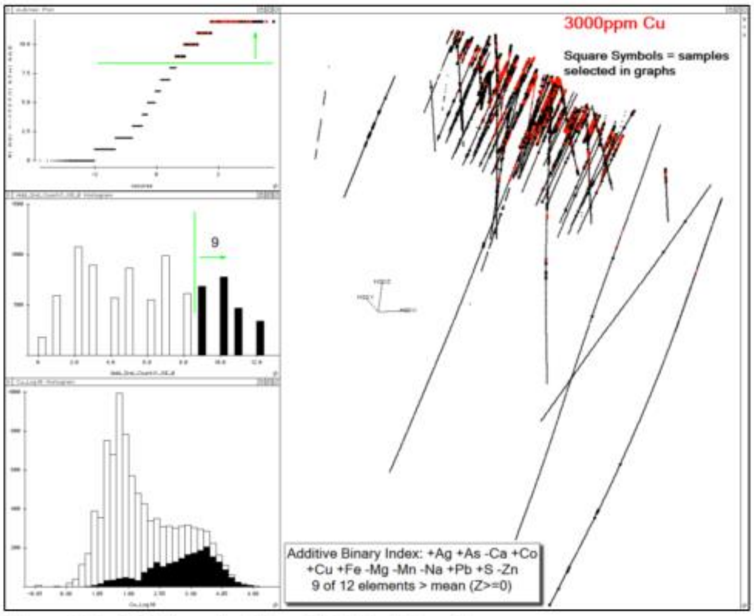

Figure 32: AddBinaryInd(Z>=0)-Cu Relationship

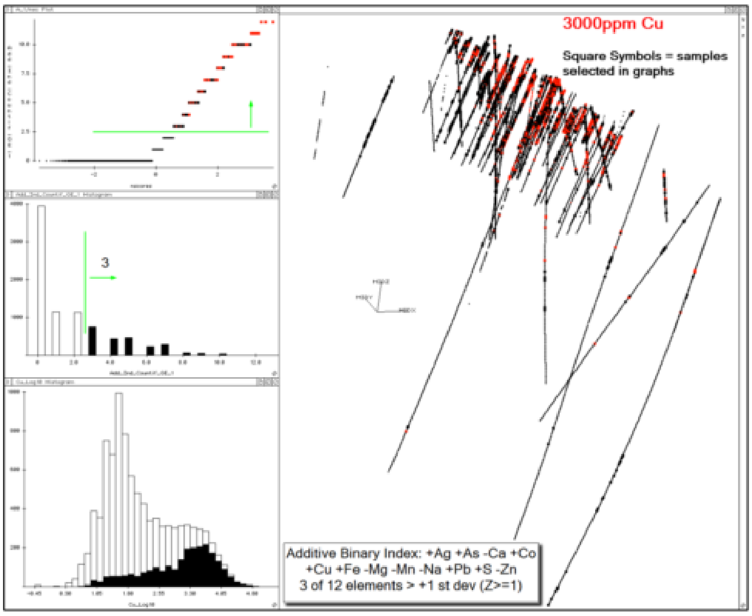

Figure 33 AddBinaryInd(Z>=1)-Cu Relationship

Appendix 15 ITS Laboratory Accreditation Certificate ilac-MRA KAN Komite Akreditasi Nasional

SERTIFIKAT AKREDITASI

LP-130-IDN

Ditetapkan tanggal : 23 Juli 2014

Berlaku hingga: 22 Juli 2018

Diberikan kepada

PT INTERTEK UTAMA SERVICES

di

Jl. Raya Bogor KM 28, Jakarta Timur, DKI Jakarta- 13710

yang telah menunjukkan kompetensinya sebagai

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dengan menerapkan secara konsisten

SNI ISO/IEC 17025:2008 (ISO/IEC 17025:2005)
Persyaratan Umum Untuk Kompetensi Laboratorium Pengujian dan Laboratorium Kalibrasi

untuk ruang lingkup seperti dalam lampiran

KOMITE AKREDITASI NASIONAL

Prof. Dr. BAMBANG PRASETYA

KETUA

Sertifikat ini memberikan hak kepada laboratorium untuk menggunakan tanda akreditasi pada sertifikat/laporan yang diterbitkan, kop surat, iklan, dan tujuan promosi lainnya sesuai ketentuan yang berlaku. Sertifikat ini tidak boleh direproduksi sebagian, kecuali secara keseluruhan, tanpa izin tertulis dari Komite Akreditasi Nasional.

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Nama Laboratorium : PT. Intertek Utama Services
Alamat : Jl. Raya Bogor KM 28, Jakarta Timur 13710
Telp. (021) 29384454 Faks. (021) 29384465 / 63

Masa berlaku: 23 Juli 2014 s/d 22 Juli 2018

Lingkup Akreditasi

Bidang pengujian	Bahan atau produk yang diuji	Jenis pengujian atau sifat-sifat yang diukur	Spesifikasi, metode pengujian, teknik yang digunakan	Keterangan
Penandatangan sertifikat/laporan : Andrew Riley; Robert Oliver; Allen Hingst; Titus Sitorus				
Kimia	Mineral batuan	Au	FA50, FA51, FA30 (*Teknik Fire assay* (FAAS))	
		Au, Pt, Pd *Low level detection*	FA55 (*Teknik Fire assay* (GF-AAS))	
		Au	FA20 (Teknik *Screen Fire Assay* (FAAS))	
		Au	FA12 (Teknik gravimetri)	
		Au	AR50.AR30, AR51 (Teknik digest aqua regia, AAS dan GF-AAS)	
		Au, Ag, Cu, Cyanide leach	CN02, CN04 (Teknik ekstraksi, AAS dan GF-AAS)	
		Ag, As, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn	GA02, GA03 (Teknik digest HCl/HClO4 & AAS)	
		Ag, As,Cu,Pb,Zn	GA01 (Teknik digest aqua regia & AAS)	
		Ag, Al, As, Cd, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pb, Zn	GA30, GA50, GA31 (Teknik *Triple Acid Digestion / Multi Acid Digestion* & AAS)	
		Hg	CV02 (Teknik *Cold Vapour* (CV-AAS)	
		Sulphur dan carbon	ST01 (Teknik IR *Absorption* (LECO))	
		As, Ba, Bi, Mo, Pb, Sb, Se, Sn, Ta, Te, Tl, W	XR01 (Teknik XRF)	
		Ni, Co, Al_2O_3, SiO_2, Na_2O, MgO, Fe_2O_3, CaO, TiO_2, P_2O_5, MnO, K_2O, Cr_2O_3	XR80 (Teknik Whole Rock (XRF))	
		Loss On Ignition (LOI)	LOI (Teknik pembakaran)	
		Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, S, Sb, Sc, Sn, Sr, Ta, Te, Ti, V, W, Y, Zn and Zr	IC01, Digest Aqua regia, (Campuran HNO_3; HCl), dan analisis dengan instrumen ICP.	
		Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sc, Sn, Sr, Ta, Te, Ti, V, W, Y, Zn and Zr	IC50, *Digest Multi acid* , (Campuran HNO_3; HCl), $HClO_4$ dan HF), dan analisis dengan instrumen ICP.	
		Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, S, Sb, Sc, Sn, Sr, Ta, Te, Ti, V, W, Y, Zn and Zr	IC02, Digest, (Campuran $HClO_4$; HCl), dan analisis dengan instrumen ICP.	

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Komite Akreditasi Nasional

LANJUTAN LAMPIRAN SERTIFIKAT AKREDITASI LABORATORIUM NO. LP-130-IDN

Nama Laboratorium : PT. Intertek Utama Services
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Masa berlaku: 23 Juli 2014 s/d 22 Juli 2018

Lingkup Akreditasi

Bidang pengujian	Bahan atau produk yang diuji	Jenis pengujian atau sifat-sifat yang diukur	Spesifikasi, metode pengujian, teknik yang digunakan	Keterangan
Penandatangan sertifikat/laporan : Andrew Riley; Robert Oliver; Allen Hingst; Titus Sitorus				
Kimia	Mineral batuan (Lanjutan)	Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, Pb, Sb, Sc, Sn, Sr, Ta, Te, Ti, V, W, Y, Zn and Zr	IC30, *Digest Three Acid* , (Campuran HNO_3; HCl dan $HClO_4$), dan analisis dengan instrumen ICP.	
		Ni, Co, Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, Cu, Zn, S, BaO, V_2O_5, Pb, AS, Sn dan Cl	XR20 (Teknik XRF)	
		Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, S, ZrO_2	XR30 (Teknik XRF)	
		Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, S, V_2O_5	XR40 (Teknik XRF)	
		Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, Cu, Pb, Zn, S, BaO	XR50 (Teknik XRF)	
		Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, S, Pb, AS, ZrO_2, HfO_2	XR60 (Teknik XRF)	
		Ni, Co, Al_2O_3, CaO, Cr_2O_3, Fe_2O_3, K_2O, MgO, MnO, Na_2O, P_2O_5, SiO_2, TiO_2, Cu, Zn, Cl	XR81 (Teknik XRF)	
	Batuan dan tanah	Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr	4A/OE/MS (Teknik ICP MS)	

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Appendix 16 Kriging Neighborhood and Experimental Variography Report

Resource Evaluation Services

18 November 2015 Document ID : 201516003001

Duncan Hackman,
Hackman and Associates Pty. Ltd.,
260A Crawford Rd Inglewood,
WA, 6052.

SUBJECT

Dear Duncan,

The following summarises the geostatistical analysis undertaken by RES on the supplied Beruang Kanan data set. RES understands that Beruang Kanan, owned by PT Kalimantan Surya Kencana, consists of structurally controlled copper mineralisation hosted in dacitic tuff.

Twenty five wireframe models for the Cu mineralisation have been created by Hackman and Associates Pty Ltd ('Hackman') based on a 2000 ppm Cu edge cut off. The mineralised domains have been grouped by the orientation of the modelled lodes and named accordingly (Figure 1, Table 1).

Figure 1 - Mineralised Domains (oblique view to NEE)

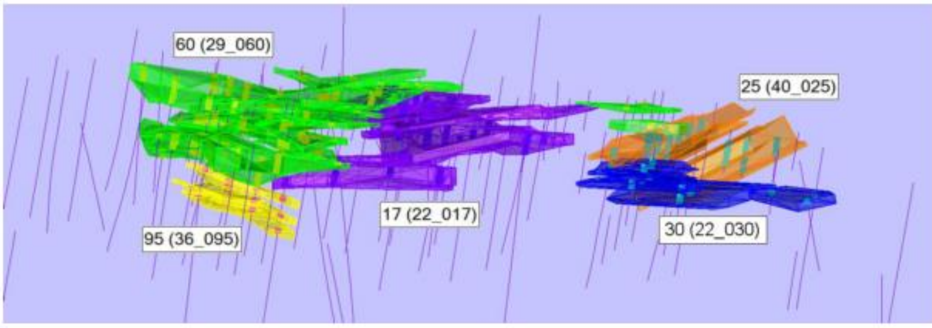

Table 1 - Modelled Mineralisation Domains and Composite Numbers (after Hackman)

Geocod_ID	3m Composite Count	Wireframe Domain (for search ellipsoid assignment)
5	9085	outside triangulated domains
17	378	22_017_Solid_min_11.00t
		22_017_Solid_min_12.00t
		22_017_Solid_min_13.00t
		22_017_Solid_min_14.00t

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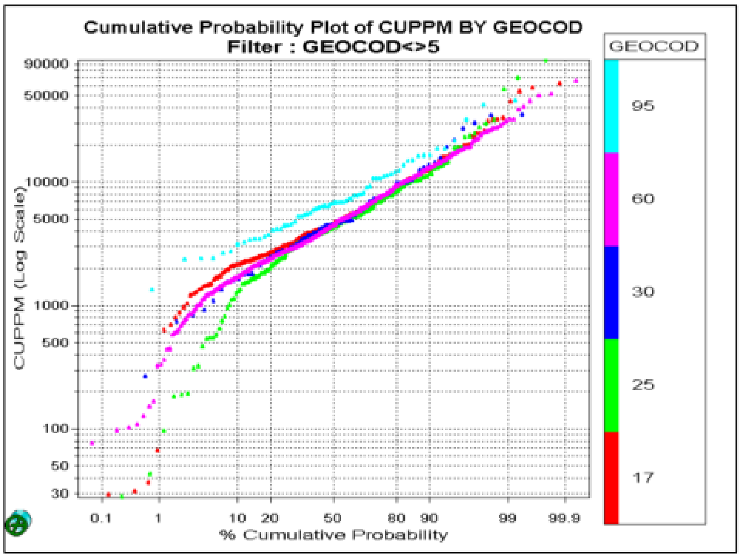
		22_017_Solid_min_15.00t
25	213	40_025_Solid_min_16.00t
		40_025_Solid_min_17.00t
		40_025_Solid_min_18.00t
30	83	22_030_Solid_min_19.00t
		22_030_Solid_min_20.00t
		22_030_Solid_min_21.00t
		22_030_Solid_min_25.00t
60	816	29_060_Solid_min_1.00t
		29_060_Solid_min_2.00t
		29_060_Solid_min_22.00t
		29_060_Solid_min_23.00t
		29_060_Solid_min_24.00t
		29_060_Solid_min_3.00t
		29_060_Solid_min_4.00t
		29_060_Solid_min_5.00t
		29_060_Solid_min_6.00t
		29_060_Solid_min_7.00t
95	65	36_095_Solid_min_10.00t
		36_095_Solid_min_8.00t
		36_095_Solid_min_9.00t

Drilling data has been composited to three metres (3.0 m) by Hackman and delivered as the file bkcu_3m.map. A brief review of the data confirmed the sample numbers reported by Hackman and illustrated the general consistency of the grades within the grouped domains (Table 2).

Table 2 - Summary Statistics Cu ppm Unweighted

Domain	17	25	30	60	95
Num Rec	378	213	83	816	65
Minimum	0	0	264	0	1320
Maximum	62333	96100	34700	65013	45000
Mean	6614	6522	6724	6164	9120
Median	4492	4207	4498	4313	6694
IQ1	2945	2371	2745	2568	4306
IQ3	7520	7244	7712	7659	11044
Variance	51108632	94128984	47534147	39721452	66203783
Std Devn	7149	9702	6895	6302	8137
C.V	1.08	1.49	1.03	1.02	0.89
Skewness	4.11	5.81	2.46	3.45	2.66
Kurtosis	26.05	45.80	9.25	22.15	10.99

Figure 2 - Cumulative Probability by Grouped Domain (Cu ppm)



The exception to this consistency is Domain 95 which has a higher average grade and sample population (Figure 2). This, is in contrast to the sample population similarity of the other domains, suggests that domain 95 may be the result of a separate mineralising event.

To a lesser extent, Domain 25 shows a divergence from the population trends of the other domains, particularly in the low and high grades.

<u>Variographic Analysis</u>

Experimental variograms were calculated and a variety of models examined. This was done for all combined groups and for domain 95 and 25 separately.

The full data set gives an azimuth of 140 which is the overall alignment of modelled mineralisation (Figure 3). This direction was modelled and the model applied to the primary strike orientations of the individual wireframe groups. The mode was a reasonably good fit in all cases (Figure 4, Figure 5, Figure 6).

Domains 95 and 25 were examined separately but only a poor major direction could be modelled from the experimental vaiogram (Figure 7). This model was consistent with that generated for the full data set.

In all cases a model using one spherical structure fits the data.

Figure 3 - Correlogram Map All Data

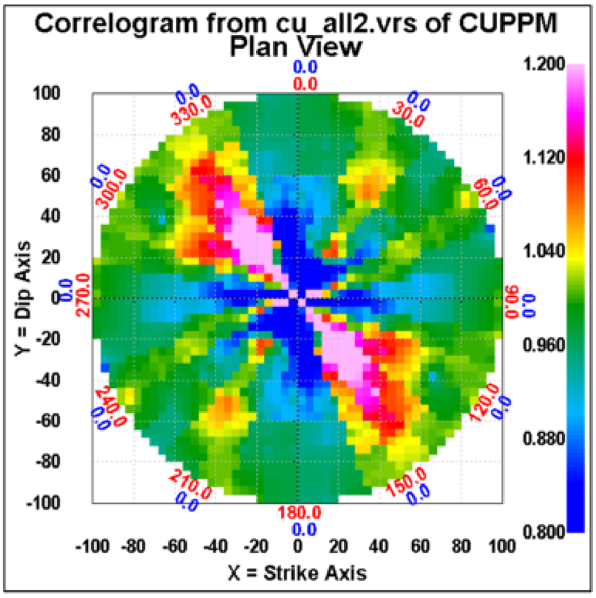


Figure 4 - Variogram – Downhole Variogram

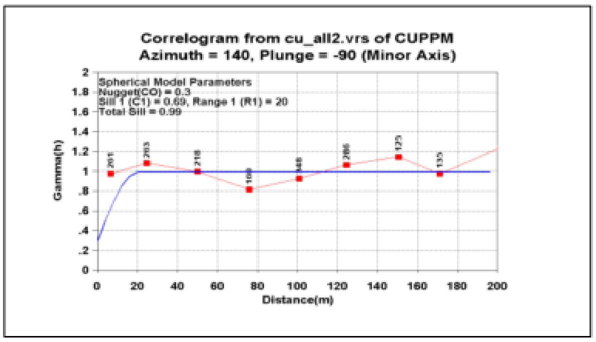


Figure 5 - Variogram – Major Direction

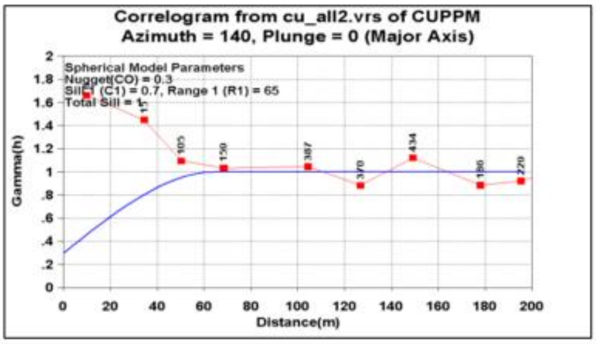


Figure 6 - Variogram – Semi-Major Direction

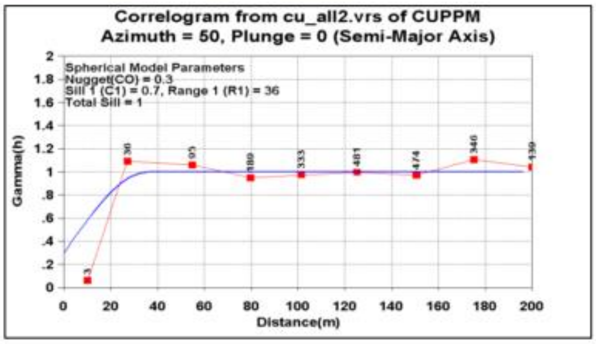
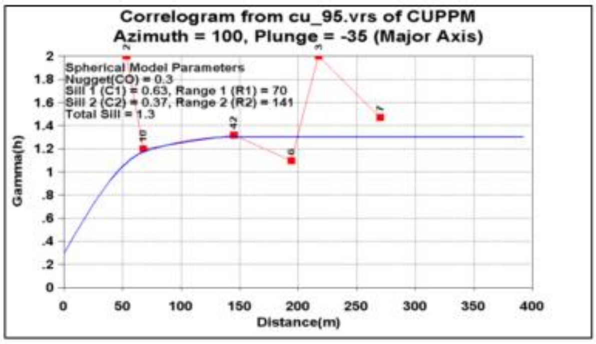


Figure 7 - Variogram – Domain 95 – Major Direction



From this analysis RES recommend the following variogram parameters (Table 3) be used in the kriged estimate of the deposit:

Table 3 - Kriging Parameters

Parameter	Value
Nugget	0.3
Sill Differential	0.7
Bearing / Plunge / Dip	Orientation of the zone (same as search ellipse)
Major Axis	65 m
Semi Major Axis	40 m
Minor Axis	30 m

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Appendix 17 Abbreviations and Conversions

Abbreviation	:	Meaning
%	:	Percent
%Difference	:	Percentage difference (duplicate - original)/original
%RSD	:	Percentage Relative Standard Deviation, StdDev/Average *100
°C	:	Degrees Celsius
3D	:	Three Dimension
A.B.N.	:	Australian Business Number
AAS	:	Atomic absorption spectroscopy - method for measuring element concentrations in solution (assays)
Ag	:	Silver
AIM	:	formerly the Alternative Investment Market - a sub-market of the London Stock Exchange
Au	:	Gold
B.App.Sc., MSc., MAIG	:	Bachelor Applied Science, Master of Science, Member Australian Institute of Geoscientists
BK	:	Beruang Kanan
BKM	:	Beruang Kanan Main Zone Prospect/mineralization
BSc.(Hons)	:	Bachelor Science with Honours
cm	:	centimetres
CoW	:	Contract of Work
CRM	:	Certified Reference Material
Cu	:	Copper
E	:	East
ENJ	:	PT Eksplorasi Nusa Jaya (a PT Freeport Indonesia subsidiary)
et al.	:	and others
g/cc	:	unit for measurement of specific gravity - grams per cubic centimetre (also can be expressed as T/m^3)

Abbreviation	:	Meaning
g/t	:	grams per metric tonne - a measurement of element concentration, interchangeable with ppm
GA	:	PT GeoAssay (laboratory)
Grade	:	Quantity of metal per unit weight of host rock.
GT	:	Grade Tonnage
H&A	:	Hackman and Associates Pty Ltd
ha.	:	hectare(s)
ICP-MS	:	Inductively coupled plasma mass spectrometry - method for measuring element concentrations in solution (assays)
ICP-OES	:	Inductively coupled plasma optical emission spectrometry - method for measuring element concentrations in solution (assays)
ICP-OES AAS	:	methods for measuring element concentrations in solution (assays)
IP	:	Induced Polarization - involves transmitting a current into the ground using two electrodes and measuring the voltage between another pair of electrodes.
IUP	:	Mining Business License (Izin Usaha Pertambangan).
JV	:	Joint Venture
kg	:	kilogram(s)
KGCL	:	Kalimantan Gold Corporation Limited
km	:	kilometre
km^2	:	kilometre squared
KNA	:	Kriging Neighbourhood Analysis
KP	:	Mining Authorization (Kuasa Pertambangan) - now defunct.
KSK	:	PT Kalimantan Surya Kencana
KSK CoW	:	the 6th generation Contract of Work (CoW) held by KSK

Abbreviation	:	Meaning
Lat	:	Latitude
LIDAR	:	Lidar is a remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light.
m	:	metre(s)
MAIG	:	Member of Australian Institute of Geoscientist
max	:	maximum
mesh	:	grid mesh (measurement of aperture)
mm	:	millimeters
Mo	:	Molybdenum
MPD	:	Mean Paired Difference (expressed as a percent)
MPRD	:	Mean Paired Relative Difference (expressed as a percent)
N	:	North
NB	:	Please note
NI 43-101	:	"Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects" defines and regulates public disclosure in Canada for mineral projects and it relies on resource and reserve classification as defined by CIM.
Ordinary Kriging	:	3D interpolation method.
OX	:	Oxiana Limited
Pb	:	Lead
pH	:	measure of the acidity or basicity of an aqueous solution
ppm	:	parts per million - a measurement of element concentration, interchangeable with grams per metric tonne
PQ HQ NQ BQ	:	Diamond Drill Hole Core sizes
PT	:	Perseroan Terbatas ("Limited Liability")
Py	:	Pyrite
QA	:	Quality Assurance

Abbreviation	:	Meaning
QC	:	Quality Control
Q-Q	:	Quartile - Quartile (plot)
Rd	:	Road
RE	:	Reference to
RL	:	reduced level (relative to vertical datum - usually ASL - Average Sea Level)
S	:	South
Sb	:	Antimony
SEDAR	:	System for Electronic Document Analysis and Retrieval (Canadian - www.sedar.com)
SFK	:	PT Sucofindo (Persero) Laboratory
SG	:	Specific Gravity (mass/volume)
Si	:	Silica
SOP	:	Standard Operating Procedure
StdDev	:	Standard Deviation
T	:	metric tonnes
TIN	:	Triangulated Irregular Network (computer solid model shape that domains features of projects in 3D)
™	:	Trade Mark
UTM	:	Universal Transvers Mercator (Cartesian coordinate grid system)
vol%	:	Percentage of total volume
W	:	West
WA	:	Western Australia
WGS84, UTM Zone 49S	:	Spheroid projection and grid datum for the geographical location of data at Beruang Kanan
yrs	:	years
Zn	:	Zinc

APPENDICES: Qualified Person's Report on the Mineral Resources, Beruang Kanan Main Zone, November 2015.