ASX and MEDIA RELEASE

12 November 2013

ALKANE RESOURCES LTD
ABN 35 000 689 216

Tomingley Gold Project – Caloma Two Resource
Upgrade brings Tomingley close to 1 million ounce gold resource

- **Caloma Two resource estimate increases gold inventory at Tomingley by 13.5%**
- **The initial resource at Caloma Two is 1.7 million tonnes grading 2.0g/t gold for 109,300 ounces**
- **Total resources within Tomingley Gold Project now 14.29 million tonnes grading 2.0g/t gold for 921,000 ounces**
- **The development program remains on schedule and budget to commence production in February**

TOMINGLEY GOLD PROJECT (TGP) – gold

Tomingley Gold Operations Pty Ltd (TGO) 100%

The TGP is based on three gold deposits (Wyoming One, Wyoming Three and Caloma) located 14 kilometres north of the Company's Peak Hill Gold Mine, and approximately 50 kilometres south west of Dubbo (Figure 1). The Caloma Two deposit is located immediately to the south of Caloma and has been subject to extensive resource definition drilling in the last twelve months.

The Project received state development approval in July 2012 and Mining Lease granted in February 2013. Construction of the treatment plant and associated mine facilities are 85% complete with production due to commence on schedule in February 2014.

CONTACT : IAN CHALMERS, MANAGING DIRECTOR, ALKANE RESOURCES LTD, TEL +61 8 9227 5677

INVESTORS : NATALIE CHAPMAN, CORPORATE COMMUNICATIONS MANAGER, TEL +61 418 642 556

MEDIA : WESTBROOK COMMUNICATIONS, CONTACT: IAN WESTBROOK, TEL +61 2 9231 0922 OR +61 407 958 137

65 Burswood Road, Burswood WA 6100, AUSTRALIA (PO Box 4384, Victoria Park WA 6979, AUSTRALIA)

Telephone: +61 8 9227 5677 Facsimile: +61 8 9227 8178

www.alkane.com.au mail@alkane.com.au

Mineral Resources

A major drilling program consisting of 22,782 metres of RC drilling in 159 holes and 2,145 metres in 11 diamond core (DD) holes was completed at Caloma Two in late March 2013. The program was designed to confirm mineralisation outlined in broadly spaced drilling completed in 2010 and 2011 and to upgrade to resource status.

The geology, alteration and mineralisation at Caloma Two are very similar to those of the other Tomingley deposits. Economic mineralisation is associated with quartz veining, sulphide accumulation and alteration focused within sub-volcanic porphyritic feldspar porphyry sills and adjacent volcaniclastic sediments. The Wyoming and Caloma deposits appear to have formed as the result of a rheological competency contrast between the porphyritic sub-volcanic sills and the surrounding volcaniclastic sediments, with the sills showing brittle fracture and the sediments ductile deformation. The deposits have many similarities to well documented orogenic-style gold deposits.

Stratigraphy at Caloma Two has a distinctive ESE-WNW orientation, in difference to a dominantly NS trend at the adjacent Caloma deposit. This orientation change is interpreted to result from the interaction of the major NW-SE trending fault that occurs immediately to the south of the deposit. The feldspar porphyry host is thought to form the core of a synformal structure bounded by thin sediment units. (Figure 2).

Like Caloma, mineralisation at Caloma Two is relatively complex. The orientation of the mineralised zones has been determined from the vein direction data obtained from oriented diamond drill core. Mineralisation lies dominantly within the feldspar porphyry where there are both flat (<20°) and moderately north dipping (40°-50°) zones (Figure 3). Other less well defined zones of mineralisation are interpreted to occur near the keel of the synform and interpreted as a reverse saddle and a discontinuous zone of mineralisation developed along the northern sediment horizon which is thought to form a link with the southern mineralised zones at Caloma.

Narrow steeply-dipping tholeiitic dolerite dykes, of slightly differing ages, crosscut the whole sequence and postdate mineralisation. The dykes usually have low gold grades except locally along their margins.

Mr Richard Lewis of Lewis Mineral Resource Consulting Pty Ltd (LMRC), who completed all of the previous resource estimates for the TGP, has compiled an initial resource assessment for Caloma Two. This assessment incorporates all past and current RC and DD drilling completed at Caloma Two (195 RC holes totalling 28,260m and 17 DD holes totalling 3,631m), and is based on interpretation of the mineralised zones completed by Alkane personnel (Figure 4).

The estimates were made using sub-blocks, a primary block size of 2.5m x 2.5m x 5m in X, Y, Z with grade interpolation by Ordinary Kriging. The final resource model is a regularized sub-block model that incorporates some dilution. The resources were limited by an optimum pit design (Figure 5) to ensure that there are reasonable prospects for eventual economic extraction. Further details of the methodology are included in the attached JORC Table (Appendix 1).

The resource at Caloma Two, as constrained by an optimum pit and at a cut-off grade of 0.75g/t gold, is **1.7 million tonnes grading 2.00 g/t gold** for **109,300 ounces** increasing the total resource inventory at Tomingley to **14.29 million tonnes grading 2.0g/t gold for 921,000 ounces**.

Mineralisation that has been modelled but lies outside of the resource will be assessed by the Tomingley operations team for the potential extraction by underground mining methods (Figure 5).

Tomingley Gold Project Resources – November 2013

DEPOSIT	MEASURED		INDICATED		INFERRED		TOTAL		
	Tonnage (Mt)	Grade (g/t)	Tonnage (Mt)	Grade (g/t)	Tonnage (Mt)	Grade (g/t)	Tonnage (Mt)	Grade (g/t)	Gold (koz)
This Report									
Caloma Two [1]			**1.0**	**2.4**	**0.7**	**1.4**	**1.70**	**2.0**	**109.3**
Previously Reported (29 March 2012)									
Wyoming One [2]	**2.32**	**2.2**	**0.89**	**2.2**	**3.12**	**1.7**	**6.32**	**1.9**	**392.4**
Wyoming Three [2]	**0.64**	**2.0**	**0.06**	**2.0**	**0.10**	**1.3**	**0.81**	**1.9**	**49.9**
Caloma [2]	**2.69**	**2.3**	**0.57**	**2.1**	**2.19**	**1.9**	**5.45**	**2.1**	**369.4**
Total	**5.65**	**2.2**	**2.52**	**2.25**	**6.11**	**1.73**	**14.29**	**2.0**	**921.0**

[1] *These Mineral Resources are based upon information compiled by Mr Richard Lewis FAusIMM (Lewis Mineral Resource Consulting Pty Ltd) who is a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Richard Lewis consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The full details of methodology are given in Appendix 1 of this announcement.*

[2] *These previously reported Mineral Resources are based upon information compiled by Mr Richard Lewis FAusIMM (Lewis Mineral Resource Consulting Pty Ltd) who is a Competent Person as defined in the 2004 Editions of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Richard Lewis consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The details of methodology for estimating the Wyoming One and Wyoming Three resources are given in Appendix 2 and for the Caloma resources in Appendix 3 of this announcement.*

Competent Person

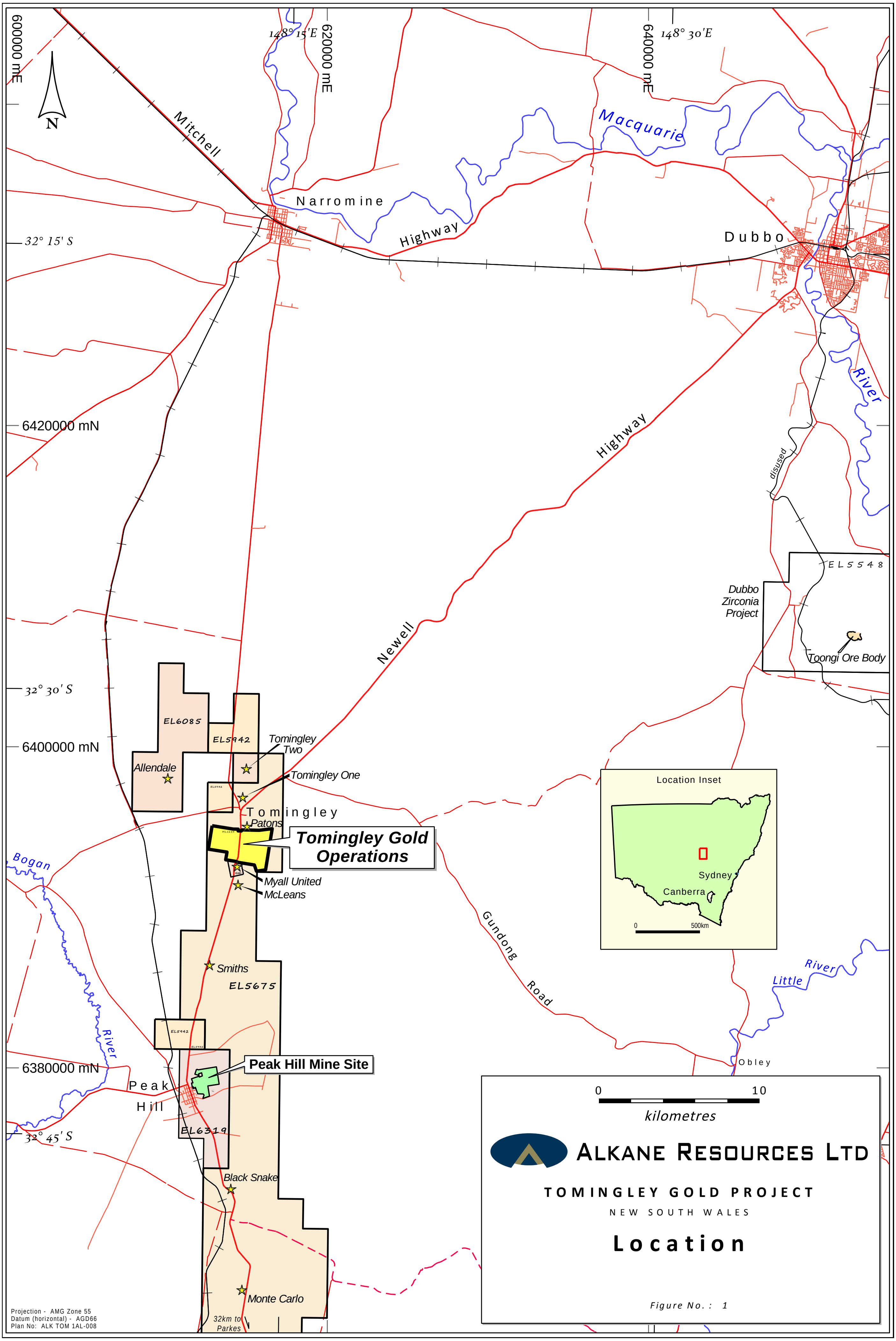
Unless otherwise advised above, the information in this report that relates to exploration results, mineral resources and ore reserves is based on information compiled by Mr T W Ransted the Chief Geologist for Alkane Resources Ltd who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Ransted has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Terry Ransted consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

ABOUT ALKANE - www.alkane.com.au - ASX: ALK and OTCQX: ANLKY

Alkane is a multi-commodity company focused in the Central West region of NSW Australia. Currently Alkane has two projects heading towards production in 2014/2016 - the Tomingley Gold Project (TGP) and the nearby Dubbo Zirconia Project (DZP). Tomingley received project approval for its development early 2013 and is scheduled to commence production early 2014. Cash flow from the TGP will provide the funding to maintain the project development pipeline and will assist with the development of the DZP.

The DZP environmental impact statement has been completed and a development decision is anticipated early 2014. This project will make Alkane a strategic and significant world producer of zirconium products and heavy rare earths.

Alkane's most advanced gold copper exploration projects are at the 100% Alkane owned Wellington and Bodangora prospects. Wellington has a small copper-gold resource which can be expanded, while at Bodangora a large 12km^2 monzonite intrusive complex has been identified with porphyry style copper-gold mineralisation. Encouraging gold-zinc mineralisation and alteration associated with a monzonite intrusive, has been identified at Cudal.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640000 mE
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Mitchell
Narromine
Highway
Macquarie
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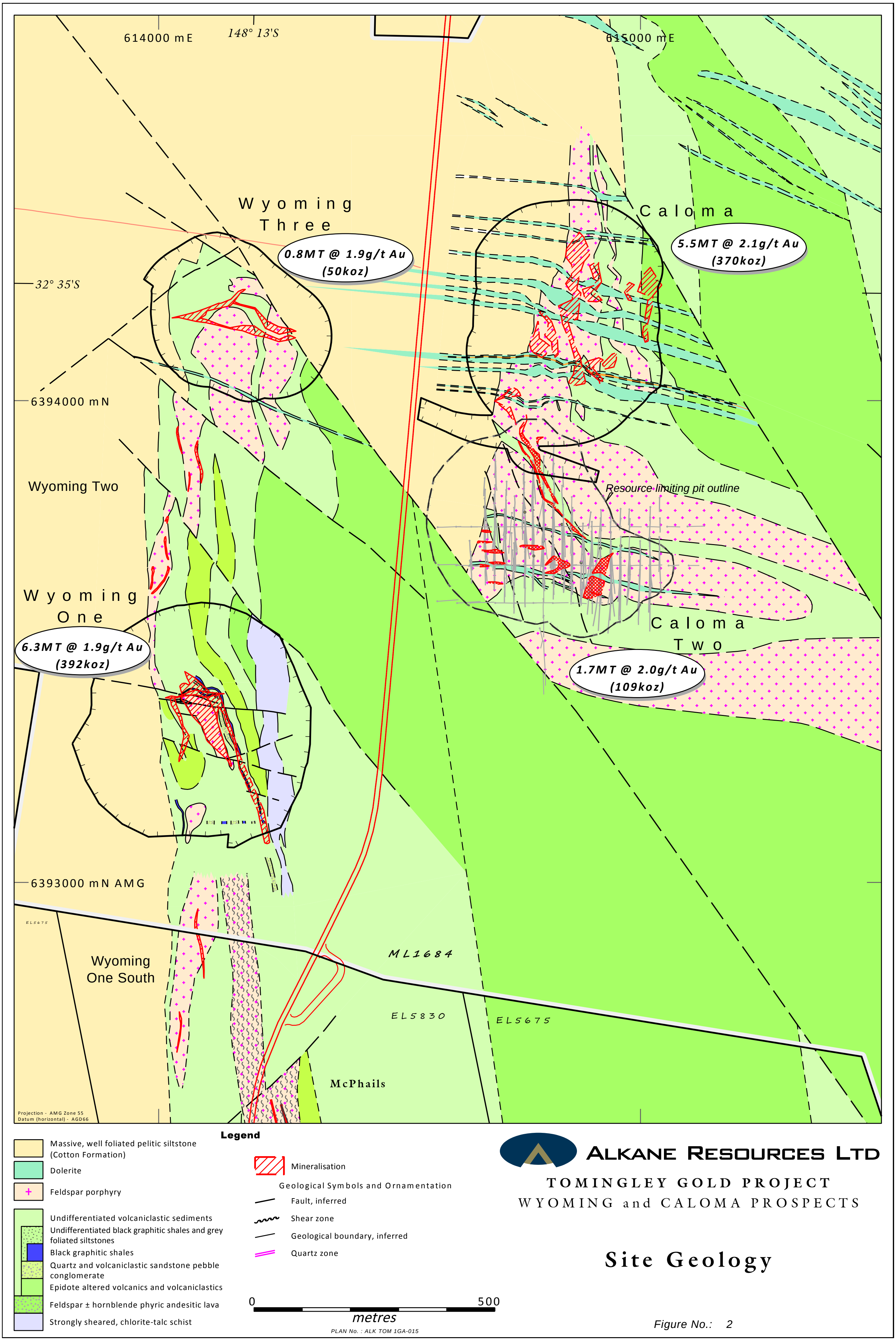
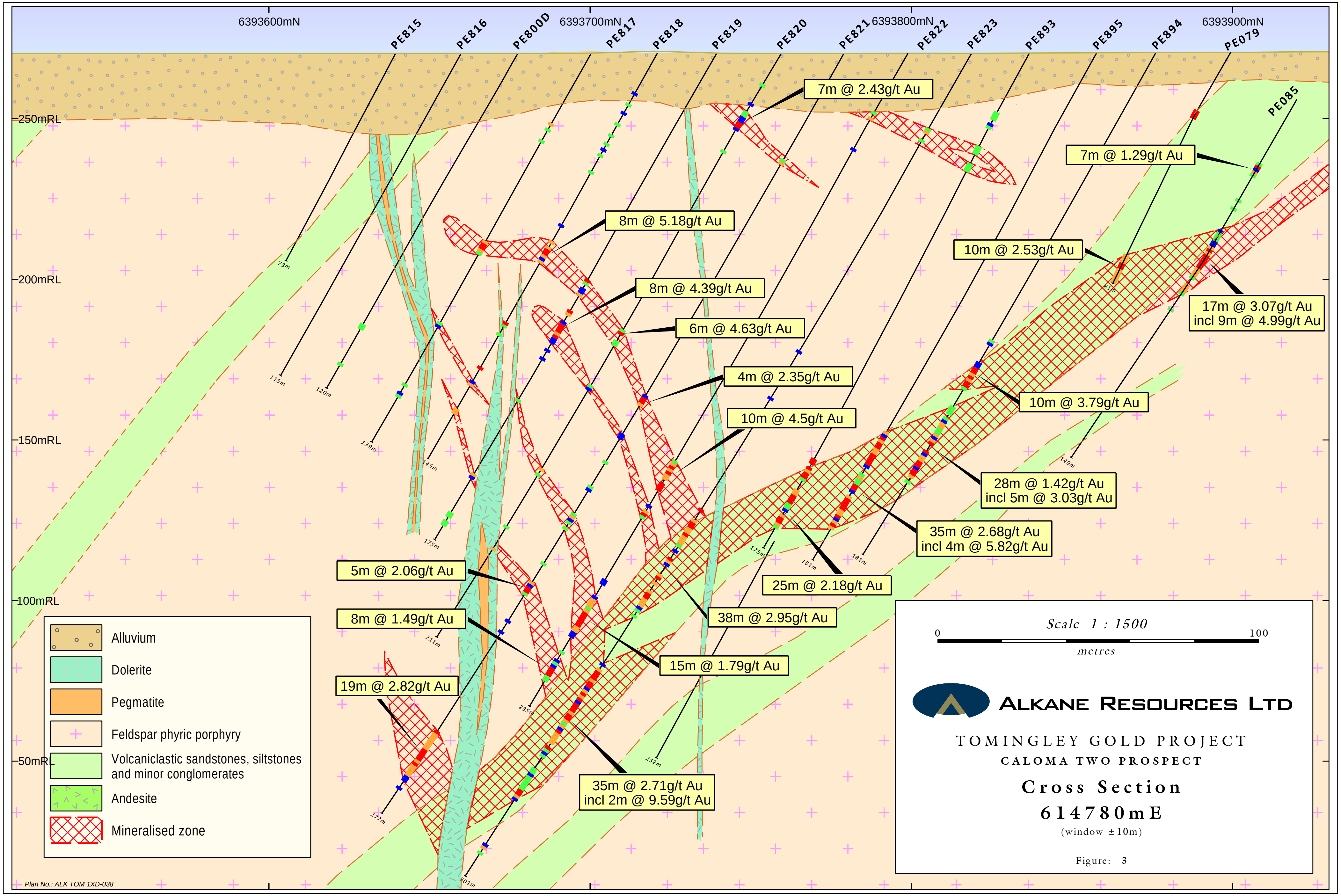
disused
Newell
EL5548
Dubbo Zirconia Project
Toongi Ore Body
32° 30' S
EL6085
EL5942
Tomingley Two
6400000 mN
Allendale
Tomingley One
Tomingley
Patons
Tomingley Gold Operations
Myall United
McLeans
Bogan
Location Inset
Sydney
Canberra
0
500km
Gundong Road
Smiths
EL5675
River
Little
River
Obley
6380000 mN
Peak Hill Mine Site
Peak Hill
EL6319
32° 45' S
Black Snake
Monte Carlo
32km to Parkes
Projection - AMG Zone 55
Datum (horizontal) - AGD66
Plan No: ALK TOM 1AL-008
0
10
kilometres
Alkane Resources Ltd
TOMINGLEY GOLD PROJECT
NEW SOUTH WALES
Location
Figure No. : 1


614000 mE
148° 13'S
615000 mE
32° 35'S
6394000 mN
6393000 mN AMG
Wyoming Three
0.8MT @ 1.9g/t Au (50koz)
Caloma
5.5MT @ 2.1g/t Au (370koz)
Wyoming Two
Resource limiting pit outline
Wyoming One
6.3MT @ 1.9g/t Au (392koz)
Caloma Two
1.7MT @ 2.0g/t Au (109koz)
Wyoming One South
ML1684
EL5830
EL5675
McPhails
Legend
Massive, well foliated pelitic siltstone (Cotton Formation)
Dolerite
Feldspar porphyry
Undifferentiated volcaniclastic sediments
Undifferentiated black graphitic shales and grey foliated siltstones
Black graphitic shales
Quartz and volcaniclastic sandstone pebble conglomerate
Epidote altered volcanics and volcaniclastics
Feldspar ± hornblende phyric andesitic lava
Strongly sheared, chlorite-talc schist
Mineralisation
Geological Symbols and Ornamentation
Fault, inferred
Shear zone
Geological boundary, inferred
Quartz zone
0
500
metres
PLAN No. : ALK TOM 1GA-015
ALKANE RESOURCES LTD
TOMINGLEY GOLD PROJECT
WYOMING and CALOMA PROSPECTS
Site Geology
Figure No.: 2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PE816
PE800D
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PE818
PE819
PE820
PE821
PE822
PE823
PE893
PE895
PE894
PE079
PE085
250mRL
200mRL
150mRL
100mRL
50mRL
7m @ 2.43g/t Au
7m @ 1.29g/t Au
8m @ 5.18g/t Au
8m @ 4.39g/t Au
6m @ 4.63g/t Au
4m @ 2.35g/t Au
10m @ 4.5g/t Au
10m @ 2.53g/t Au
17m @ 3.07g/t Au
incl 9m @ 4.99g/t Au
10m @ 3.79g/t Au
28m @ 1.42g/t Au
incl 5m @ 3.03g/t Au
35m @ 2.68g/t Au
incl 4m @ 5.82g/t Au
25m @ 2.18g/t Au
38m @ 2.95g/t Au
15m @ 1.79g/t Au
5m @ 2.06g/t Au
8m @ 1.49g/t Au
19m @ 2.82g/t Au
35m @ 2.71g/t Au
incl 2m @ 9.59g/t Au
Alluvium
Dolerite
Pegmatite
Feldspar phyric porphyry
Volcaniclastic sandstones, siltstones and minor conglomerates
Andesite
Mineralised zone
Scale 1 : 1500
0
100
metres
ALKANE RESOURCES LTD
TOMINGLEY GOLD PROJECT
CALOMA TWO PROSPECT
Cross Section
614780mE
(window ±10m)
Figure: 3
Plan No.: ALK TOM 1XD-038

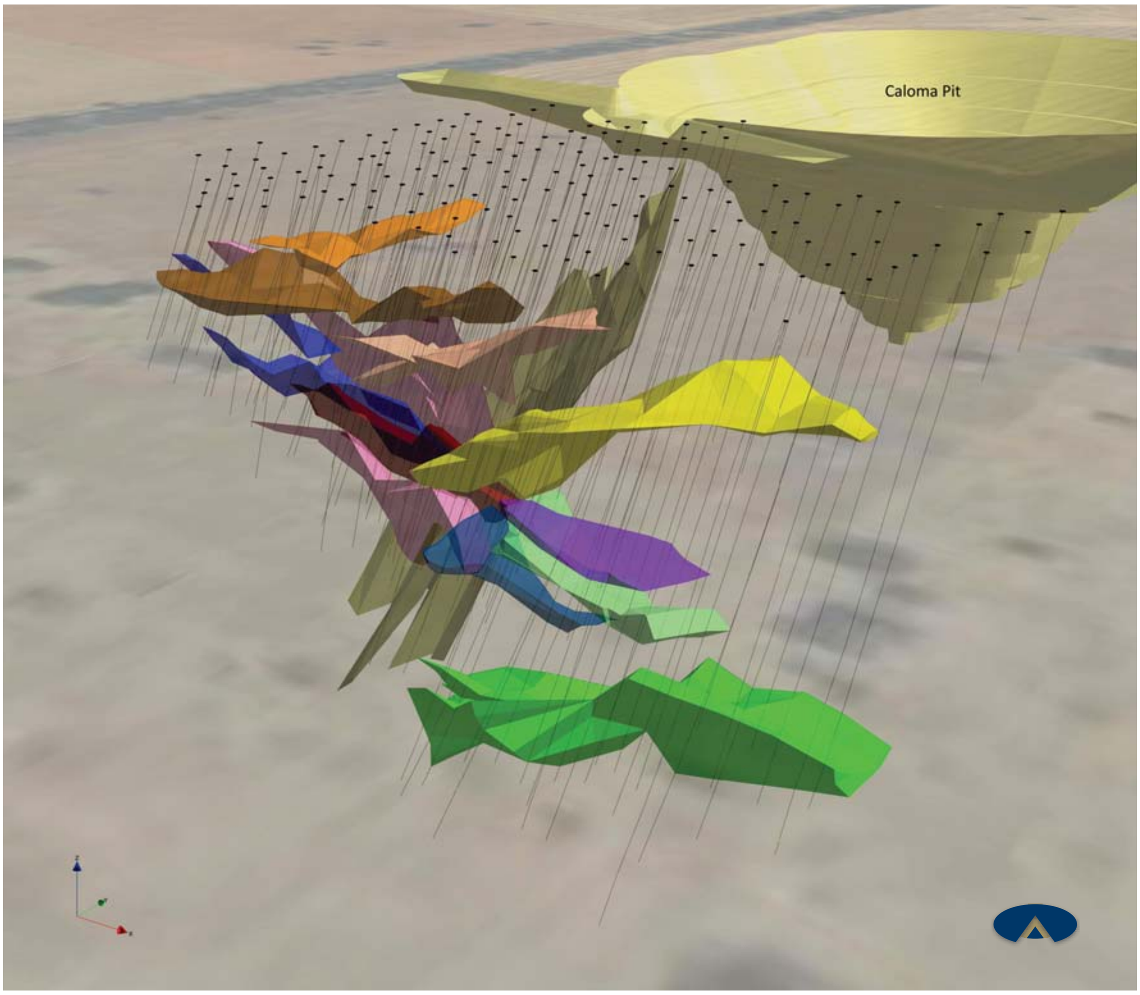

Figure 4 - Caloma Two ore zones showing drill holes and Caloma open pit (dolerites not shown)

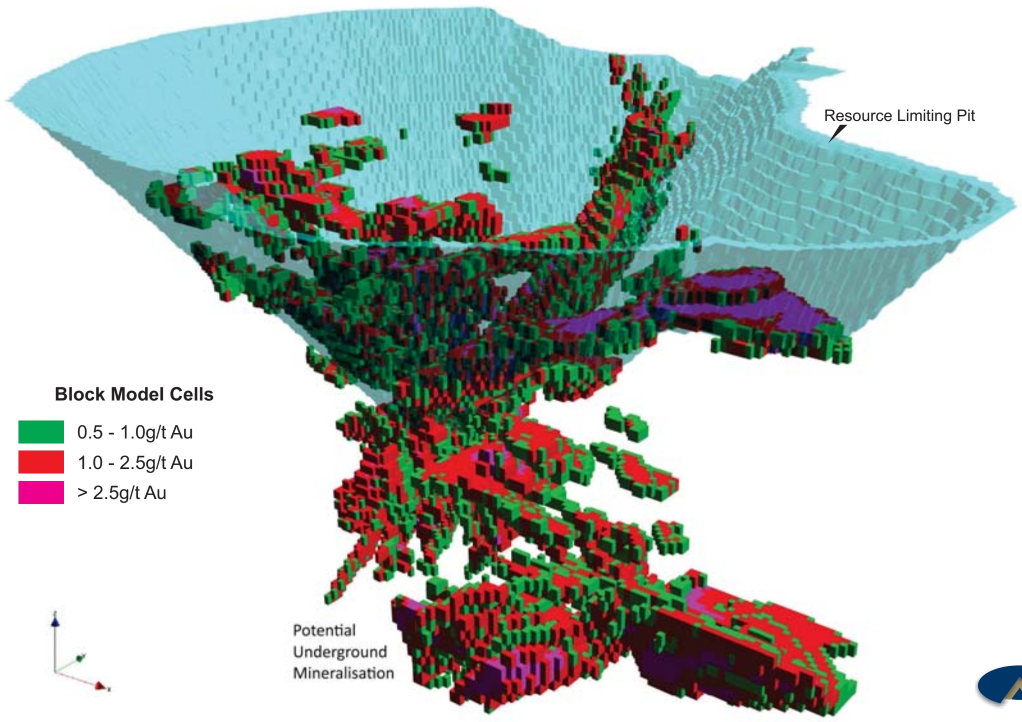

Figure 5 - Caloma Two ore body block model showing potential underground mineralisation outside of the quoted resource

Appendix 1
JORC Code, 2012 Edition – Table 1 Report – Caloma Two Open Pit
Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The Caloma Two deposit has been evaluated using air core, reverse circulation and diamond drilling techniques. Air core drilling samples were not used in the resource calculation Reverse Circulation (RC) samples are collected at one metre intervals via a cyclone and riffle or cone splitter. Intervals outside of visual ore zones are composited to 3 metres. Diamond Drill (DD). sample intervals defined by geologist during logging to honour geological boundaries.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	RC drilling completed to industry standards Core is laid out in suitably labelled core trays. A core marker (core block) is placed at the end of each drilled run (nominally 3 or 6m) and labelled with the hole number, down hole depth, length of drill run. Core is aligned and measured by tape, comparing back to this down hole depth consistent with industry standards.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	RC Drilling - approximately 10% (3kg) of total sample is delivered via cone or riffle splitter into a calico bag with the remaining sample delivered into a large plastic bag and retained for future use if required. DD Drilling – sample intervals defined by geologist during logging to honour geological boundaries. All samples sent to laboratory are crushed and or pulverised to produce a ~100g pulp for assay process. All samples are fire assayed using 50g charge. Visible gold is occasionally observed in both core and RC samples
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	The resource is based on 195 RC drill holes totalling 28,260 metres and 17 diamond core drill (DD) holes totalling 3,631 metres. Conventional RC drilling using 100mm rods and 144mm face sampling hammer. DD holes are pre-collared with un-oriented triple tube PQ3 (83mm diameter) core drilling through to competent material averaging 70 metres depth and cased down to triple tube HQ3 (61mm diameter) core tails. HQ3 core is oriented using the "Ace" core orientation tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	RC - sample recovery is visually estimated and generally very good (>90%) aided by the use of oversized shrouds through oxide material. Samples are even sized. Samples are rarely damp or wet. Sample quality is assessed by the sampler by visual approximation of sample recovery and if the sample is dry, damp or wet. Riffle and cone splitters were used to ensure a representative sample was achieved on all 1 metre samples. DD - core loss is identified by drillers and calculated by geologists when logging. Generally ≥95% was recovered and any loss is usually in portions of the oxide zone. Triple tube large diameter PQ3 core is used through the oxide material to ensure the greatest recovery.

Criteria	JORC Code explanation	Commentary
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	RC drilling completed using oversized shrouds to maintain sample return in oxide zone and all samples are split using riffle or cone splitters. Use of RC rigs with high air capacity assists in keeping samples dry. Triple tube coring is used at all times to maximise core recovery with larger diameter PQ3 core used in the oxide and saprolite zones.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	There is no known relationship between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	RC - each one metre interval is geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). DD - all core is laid out in core trays and geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage). A brief geotechnical log is also undertaken collecting parameters such as core recovery, RQD, fracture count, and fracture type and orientation.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	All logging is qualitative with visual estimates of the various characteristics. RC - A representative sample of each one metre interval is retained in chip trays for future reference. DD - Core is photographed and all unsampled core is retained for reference purposes.
	• *The total length and percentage of the relevant intersections logged.*	All DD core and RC chip samples have been geologically and geotechnically logged by qualified geologists.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	DD - zones of visual mineralisation and/or alteration are marked up by the geologist and cut in half using an Almonté (or equivalent) core cutting saw. The right half is sampled to sampling intervals that are generally based on geology but do not exceed 1.2 metres in length. The left half is archived. All mineralised zones are sampled, plus >2m of visibly barren wall rock. Laboratory Preparation – drill core is oven dried prior to crushing to <6mm using a jaw crusher, split to 3kg if required then pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp packet (±100g) is stored for future reference.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	RC - for each one metre interval with visual mineralisation and/or alteration the calico sample bag is numbered and submitted to the laboratory for analysis. Intervals without visual mineralisation and/or alteration are spear sampled and composited over three metres. Rare damp or wet samples are recorded by the sampler. For composited intervals returning grades >0.2g/t Au the calico bags are retrieved for assay of the individual intervals. Laboratory Preparation – the entire RC sample (3kg) is dried and pulverised in an LM5 (or equivalent) to ≥85% passing 75µm. Bulk rejects for all samples are discarded. A pulp packet (±100g) is stored for future reference.

Criteria	JORC Code explanation	Commentary
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Alkane (ALK) sampling techniques are of industry standard and considered adequate.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	RC – field duplicate samples collected at every stage of sampling to control procedures DD – external laboratory duplicates used.
	• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*	RC - Duplicate samples are riffle split from the riffle/conical split calico from the drill rig. Duplicates show generally excellent repeatability, indicating a negligible "nugget" effect.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sample sizes are industry standard and considered appropriate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Gold is determined using a 50g charge fused at approximately 1100°C with alkaline fluxes, including lead oxide. The resultant prill is dissolved in aqua regia and gold determined by flame AAS. For other geochemical elements samples are digested in aqua regia with each element concentration determined by ICP Atomic Emission Spectrometry or ICP Mass Spectrometry. These additional elements are generally only used for geological interpretation purposes, are not of economic significance and are not routinely reported.
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Not applicable to this report or deposit.
	• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Commercially prepared Certified Reference Materials (CRM) are inserted at 1 in 50 samples. CRM's are not identifiable to the laboratory. Field duplicate samples are inserted at 1 in 50 samples (alternate to CRM's). Laboratory QAQC sampling includes insertion of CRM samples, internal duplicates and screen tests. This data is reported for each sample submission. Failed standards result in re-assaying of portions of the affected sample batches. 2% of samples were submitted for external laboratory checks establishing a deemed satisfactory level of accuracy and precision. Screen fire assaying (75µm mesh) was undertaken on 1.5% of samples deeming a negligible "nugget" effect. Screen fire assay data overrides all other methods.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	Drill data is compiled and collated, and reviewed by senior staff. External consultants do not routinely verify exploration data until resource estimation procedures are deemed necessary.
	• *The use of twinned holes.*	Twinned holes have not been used at Caloma Two as twinning provides verification only for extremely limited areas of a deposit.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	All drill hole logging and sampling data is hard keyed into Excel spreadsheet for transfer and storage in an access database with verification protocols in place. All primary assay data is received from the laboratory as electronic data files which are imported into sampling database with verification procedures in place. QAQC analysis is undertaken for each laboratory report.

Criteria	JORC Code explanation	Commentary
		Digital copies of Certificates of Analysis (COA) are stored in a central database with regular (daily) backup. Original survey data is stored on site. Data is also verified on import into mining related software.
	• *Discuss any adjustment to assay data.*	No assay data was adjusted. In the case of assay checks the original assay is utilised as there was no statistical variability. Screen fire assays take precedence over all other assay techniques.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill holes are laid out using hand held GPS (accuracy ± 2m) then surveyed accurately (± 0.1m) by licenced surveyors on completion. RC drill holes are surveyed using a single shot electronic camera at a nominal 30m down hole interval. DD are surveyed at nominal 30m down hole during drilling to maintain drilling direction and then at 6m intervals on retrieval of rod string using a multi shot electronic camera.
	• *Specification of the grid system used.*	AMG66 grid was used.
	• *Quality and adequacy of topographic control.*	The area is very flat. A site based digital terrain model was developed from accurate (± 0.1m) survey control by licenced surveyors.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	Nominal drill hole spacing is 20m x 20m. The data spacing is the same as used at defining the Caloma resource and was established to be sufficient.
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*	The drillhole spacing has been shown to be appropriate by variography.
	• *Whether sample compositing has been applied.*	Sample compositing is not applied until resource estimation stage. RC – samples with no visible mineralisation or alteration are composited to 3m with 1m resamples assayed if the composite returned a gold value of >0.2g/t gold. One metres samples override 3m composites in the database. DD – core is sampled to geology.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Much care is given to attempt to intersect structure at an optimal angle but in complex ore bodies this can be difficult.
	• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	It is not thought that drilling direction will bias assay data at Caloma Two.
Sample security	• *The measures taken to ensure sample security.*	All samples are bagged in tied numbered calico bags, grouped into larger tied polyweave bags and transported 30 minutes away to Parkes. The samples are placed in large sample cages with a sample submission sheet and couriered to ALS in Orange via freight truck. All sample submissions are documented via ALS tracking system and all assays are reported via email. Sample pulps are returned to site and stored for an appropriate length of time (minimum 3

Criteria	JORC Code explanation	Commentary
		years). The Company has in place protocols to ensure data security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The Company does not routinely have external consultants verify exploration data until resource estimation procedures are deemed necessary. The Caloma Two data has not been audited nor reviewed by external parties however the data for other deposits within the TGP was reviewed in 2010 and 2011 by Behre Dolbear (BDA). BDA did not express any specific concerns with respect to the data other than to recommend the completion of some round robin assaying and completion of additional density determinations, both of which were undertaken for the Caloma Two resource drilling.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	EL5675 wholly owned by ALK with overlying ML 1684 in the name of Tomingley Gold Operations Pty Ltd a wholly owned subsidiary of ALK. All drilling lies within the developing Tomingley Gold Mine.
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	ML1684 is due to expire 11 February 2034.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	All reported drilling completed by ALK.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Geological nature of the Tomingley Deposits is well documented elsewhere. Mineralisation is associated with quartz veining and alteration focused within sub-volcanic basaltic-andesite sills and adjacent volcaniclastic sediments. The deposits appear to have formed as the result of a rheological contrast between the porphyritic sub-volcanic sills and the surrounding volcaniclastic sediments, with the sills showing brittle fracture and the sediments ductile deformation, and have many similarities to well documented lode-style gold deposits.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth*	Too many, not practical to summarise all drill hole data used. All material information has been previously reported in the following announcements: 16 August 2010, ASX Announcement; 17 August 2011, ASX Announcement; 26 November 2012, ASX Announcement;

Criteria	JORC Code explanation	Commentary
	o *hole length.*	11 February 2013, ASX Announcement; 7 March 2013, ASX Announcement; 31 March Quarterly Report (released 30 April, 2013); 30 June Quarterly (released 31 July, 2013).
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Exclusion of drill hole data will not detract from the understanding of this report. All drill data has been previously reported, holes are close spaced and in a developing mine area.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	Exploration results previously reported – for uncut gold grades; Intercepts are defined (bounded) by 0.5g/t gold outer limit and may contain some internal waste; Only intervals grading ≥1 g/t gold are reported; Grades are calculated by length weighted average.
	• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	Exploration results previously reported as length weighted average grades with internal high grade intercepts reported separately.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results -* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	Previously reported exploration results include an estimate of true width. The mineralisation is structurally complex and true widths are variable depending on the ore zone intersected however range between 60% and 80% of drill intersection.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Cross sections and a plan showing geology with drill collars were included with previously reported exploration results. Various plans and sections illustrating the modelled ore zones with all drill traces are attached.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Data relating to all drill holes has been reported in previous documentation of exploration results.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	No additional or new drilling results are being reported at this time.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	No further work is planned in the short term however drilling to test the continuation of mineralised structures at depth for an underground resource definition for Caloma Two will be contemplated.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Preliminary pit design is needed before any planning for underground resource delineation can be carried out. A figure showing the constrained mineral resource in relation to other potential is attached.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*	Logging data is entered into Excel via drop down menus. All raw data is loaded directly to the Access database from the assay, logging and survey derived files.
	• *Data validation procedures used.*	There are validation checks to avoid duplications of data. The data are further validated for consistency when loaded into Datamine and desurveyed.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *(If no site visits have been undertaken indicate why this is the case.)*	No site visits have been undertaken. The Competent Person has visited the exploration office for a geological discussion, viewing of the data and core photos. The deposit is completely covered by 10m to 60m of barren alluvium and there is nothing to see on the surface.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The geological model is built on structural data from core and lithological logging. The lode strike orientations are similar to Wyoming Three which sits in a similar structural position.
	• *Nature of the data used and of any assumptions made.*	Structural measurements from oriented drill core drill core was used to assist in the geological interpretation along with lithological, alteration and mineralisation logging of RC chips
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*	A steep dipping interpretation was initially proposed however this was inconsistent with structural measurements obtained from oriented drill core.
	• *The use of geology in guiding and controlling Mineral Resource estimation.*	Geological (lithological) logging was used to develop a geological model. Alteration and mineralisation estimates along with grade guided the interpretation of the ore envelope wireframes. The majority of mineralisation is hosted by a quartz veined and altered feldspar ± augite porphyritic andesite of probable sub-volcanic origin.

Criteria	JORC Code explanation	Commentary
		Dolerite dykes post-date mineralisation and all mineralised lodes are terminated at the dolerite contacts.
	• *The factors affecting continuity both of grade and geology.*	Mineralisation is directly associated with alteration and veining.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	Strike length ~ 360m Width ~ 100m Depth ~ 20m from below surface to ~ 250m below surface from deepest drilling intercept.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	13 mineralisation wireframes (domains) and 5 dolerite wireframes were interpreted and used as constraints for the resource modelling. Four surfaces were also used to separate material types - topography, alluvium, saprolite and base of oxidation surfaces. The drill hole data were flagged by dolerite and mineralised domain wireframes in priority order, to prevent double use the data in the intersecting zones. The samples immediately outside the mineralised zones were re-flagged, if they contained more than 0.25 g/t gold, in order to prevent any overestimation that could be caused by use of assay boundaries. This re-flagging is also useful for the RC samples that are not broken at barren dyke boundaries. The samples were composited to 1m, the most common sample length and flagged by the topography, alluvium, saprolite and base of oxidation surfaces. The top-cut declustered data had Coefficient of Variation (CV's) of less than 1.7 for the mineralised zones, allowing use of Ordinary Kriging for estimation. Average variogram models were fitted for the mineralised zones and dolerite dykes. Estimates were made by Ordinary Kriging, with check estimates by Inverse Distance Squared (ID2) and Nearest Neighbour methods. Datamine Studio 3 V22 was used. The resources are limited by an indicative pit design to ensure they have reasonable prospects for eventual economic extraction.
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	There are no previous estimates or any production data to provide any validation.
	• *The assumptions made regarding recovery of by-products.*	No assumptions made - Estimates were made for gold, arsenic and copper; only gold was of economic significance.
	• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*	Estimates were made for gold, arsenic and copper; only gold was of economic significance.
	• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	The primary block size was small (2.5m x 2.5m x 5m) because of the narrow dipping nature of the mineralisation zones. The average drill hole spacing was 20m and variogram ranges 22m x 26m x 3.5m. The primary search was equal to the variogram ranges; secondary search were made using 2x and 3x the primary search.

Criteria	JORC Code explanation	Commentary
		Sub-blocks were estimated.
	• *Any assumptions behind modelling of selective mining units.*	No assumptions made
	• *Any assumptions about correlation between variables.*	No assumptions made
	• *Description of how the geological interpretation was used to control the resource estimates.*	Only data form the same domain were used to make estimates.
	• *Discussion of basis for using or not using grade cutting or capping.*	The drill hole data were declustered using the polygonal method for statistical analysis and determination of top-cuts. The top cuts were selected using a combination of histograms, probability plots and cutting statistic plots (plots of cut-off grade against Coefficient of Variation (CV) and total metal).
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	Estimates were made by Ordinary Kriging, with check estimates by Inverse Distance Squared (ID2) and Nearest Neighbour methods. The estimates were verified using several different techniques and checked for local and global variability. The checks included comparison with estimates made by different estimation methods, and against the declustered composites.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages were estimated on a dry tonnage basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The cut-off grade (0.75 g/t Gold) is above the break-even cut-off calculated for the Caloma deposit immediately to the north in 2012. This took into account likely mining costs and metallurgical recovery for similar material.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The main part of the Caloma Two deposit is likely to be mined by open pit methods. Some dilution was added when the estimated sub-block model was regularized; this reduced the gold grade above 0.75 g/t cut-off by 14%. More dilution may need to be added as part of the mining reserve process. The resources were limited by an indicative pit design to ensure they have reasonable prospects for eventual economic extraction.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	The metallurgy of the nearby other Tomingley deposits is well studied. It is likely that Caloma Two will have similar metallurgical characteristics.
Environmen-	• *Assumptions made regarding possible waste and process residue disposal options. It is*	The Tomingley process plant is currently being constructed and the EIS plan has been

Criteria	JORC Code explanation	Commentary
tal factors or assumptions	*always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	approved.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.*	Specific gravity measurements were completed by commercial laboratories on DD core samples. At least 5 samples if possible were selected for each of the 8 categories; weathered porphyry, weathered mineralised porphyry, fresh porphyry, fresh mineralised porphyry, weathered sediment, weathered mineralised sediment, fresh sediment, and fresh mineralised sediment. The specific gravity measurements were applied on a dry basis.
	• *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.*	SG measurements completed on all material types – see above.
	• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	No assumptions made – SG determined and individual values applied to each material type based on wireframed surfaces
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	The resources were classified using the search pass; only estimates made within the defined mineralisation zones in the first search pass were classified as Indicated Resources. The dimensions of the search pass were based on the variogram ranges. No Measured Resources were defined, because of some uncertainly in the geological interpretation of the mineralisation zones, and the use of a high proportion of Reverse Circulation drilling (RC) for exploration.
	• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*	The use of RC drilling limits the amount of geological information that can be logged, and boundaries of mineralisation zones cannot be precisely located.
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The classification reflects the Competent Persons view of the deposit and its supporting data
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	As this is the first mineral resource estimation for this deposit, there have not been any audits or reviews.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The Caloma Two deposit consists of 13 narrow mineralisation zones; consequently there are relatively few drillhole data in each zone. This has limited the accuracy of any fitted variogram model and forced the use of average variogram models. The use of an approximate variogram model does not greatly affect the accuracy of the kriged grades as kriging is a very robust estimation process. It does, however, limit the accuracy of the variance of the estimates and any confidence limits that might be statistically inferred. No statistical or geostatistical method (non-linear or simulation) was used to quantify the

Criteria	JORC Code explanation	Commentary
		relative accuracy of the estimate within confidence limits. Accuracy of the estimate is strongly dependent on: accuracy of the interpretation and geological domaining, accuracy of the drill hole data (location and values), orientation of local anisotropy and estimation parameters which are reflected in the global resource classification.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	The resources are global, being based on drillhole data at exploration spacing. They are limited by an indicative pit design to ensure they have reasonable prospects for eventual economic extraction.
	• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	There has not been any production from Caloma Two.

Appendix 2

Note 1 (JORC 2004) to Accompany Resource Statement for Wyoming One and Three deposits (previously reported 29 March 2012)

- ***drilling technique*** – the resource is based on reverse circulation, air core and diamond core drill holes completed by Alkane between May 2001 and December 2007;
- ***drilling density*** - drill holes completed on both EW and NS sections depending on the ore zone being evaluated. Sections are nominally spaced 25m apart with drill holes at a nominal 20m intervals along these sections;
- ***drill locations*** - All drill hole collars are surveyed by DGPS to obtain X Y Z position to ±0.1m;
- ***down hole surveys*** – most holes are surveyed down hole using a single shot camera. Air core holes were surveys at bottom of hole only however RC and diamond holes are surveyed at a nominal 50m down hole interval;
- ***sampling technique*** - RC and air core samples are collected at one metre intervals and initially composited to 3m for initial assay. All composites returning grades of ≥0.2g/t Au are subsequently riffle split and appropriate sized samples bagged for despatch to the laboratory. NQ, HQ and PQ diamond drill core was halved;
- ***sample recovery*** - RC sample recovery is usually very good (>80%). Samples are usually dry. Core recovery was usually very good;
- ***assay technique*** – samples were submitted to commercial laboratories for preparation by drying, grinding and sub-sampling and then analysed by industry standard Fire Assay techniques. 3m composite RC and air core samples are analysed from a 30g charge whilst the 1m RC and AC resplits and half diamond core from a 50g charge;
- ***specific gravity*** – specific gravity measurements were completed by commercial laboratories on core samples. Values recorded for Wyoming One are 2.75 t/m^3 fresh
2.18 t/m^3 oxide
1.72 t/m^3 saprolite
1.96 t/m^3 alluvials
- ***estimation techniques*** - Estimations used a 3D pseudo-wireframe geological model as a basis for inverse distance squared grade extrapolation into a block model. Block size is 2.5m x 2.5m x 5.0m but sub-blocking was used (Wyoming One: 1.25m to 2.5m in X and Y and 0.25m to 5m in Z, Wyoming Three: 0.625m to 2.5m in X and Y and 0.25m to 5m in Z). Wireframes/ore zones are constrained by boundaries defined by geology, structure and a 0.25 g/t Au grade envelope. The estimation search filters were dynamically re-orientated to follow the changing orientations of the wireframes.

  Comparative techniques such variable block size, Nearest Neighbour and Kriging, were used to generate additional estimates for validation of the quoted resources.

  As sample intervals for Wyoming One ranged from 0.1m to 5.0m, assays were composited to 1m intervals for the modelling. A total of 16,716 samples are within the wireframe.

  Sample intervals for Wyoming Three ranged from 0.2m to 4.0m, and these assays were composited to 1m intervals for the modelling. A total of 12,836 samples are within the wire frames;
- ***top cut*** – Top Cuts were selected for the 8 individual mineralized domains (ore zones) within Wyoming One using a combination of cutting plots, histograms and probability plots. Top Cuts ranged from 8g/t Au to 45g/t Au. For Wyoming Three there are 4 mineralized domains and Top Cuts ranged from 17g/t Au to 30g/t Au.

Appendix 3

Note 2 (JORC 2004) to Accompany Resource Statement for the Caloma deposit (previously reported 29 March 2012)

- ***drilling technique*** –the resource is based on reverse circulation, air core and diamond core drill holes completed by Alkane between May 2006 and October 2011;
- ***drilling density*** - drill holes completed on both EW nominally spaced 20m apart with drill holes at a nominal 20m intervals along these sections. In areas peripheral to the central part of the ore zone sections are nominally 40m apart with holes spaced at 40m along these lines. Several NS holes were completed to assist in the geological interpretation;
- ***drill locations*** - All drill hole collars are surveyed by DGPS to obtain X Y Z position to ±0.1m;
- ***down hole surveys*** – most holes are surveyed down hole using a single shot camera. Air core holes were surveys at bottom of hole only however RC and diamond holes are surveyed at a nominal 50m down hole interval;
- ***sampling technique*** - RC and air core samples are collected at one metre intervals and initially composited to 3m for initial assay. All composites returning grades of ≥0.2g/t Au are subsequently riffle split and appropriate sized samples bagged for despatch to the laboratory. HQ and PQ diamond drill core was halved or quartered;
- ***sample recovery*** - RC sample recovery is usually very good (>80%). Samples are usually dry. Core recovery was usually very good except in portions of the oxide zone where some core loss was observed;
- ***assay technique*** – samples were submitted to commercial laboratories for preparation by drying, grinding and sub-setting and then analysed by industry standard Fire Assay techniques. 3m composite RC and air core samples are analysed from a 30g charge whilst the 1m RC and AC resplits and half diamond core from a 50g charge;
- ***specific gravity*** – specific gravity measurements were completed by commercial laboratories on core samples. Values recorded are
  - 2.78 t/m^3 fresh
  - 2.38 t/m^3 oxide
  - 1.72 t/m^3 saprolite
  - 1.96 t/m^3 alluvials
- ***estimation techniques*** - Estimations used a 3D pseudo-wireframe geological model as a basis for inverse distance squared grade extrapolation into a block model. Block size is 2.5m x 2.5m x 2.5m but sub-blocking was used (0.25m to 2.5m in X and 0.625m to 2.5m in Y and Z). Wireframes/ore zones are constrained by boundaries defined by geology, structure and a 0.25 g/t Au grade envelope. The estimation search filters were dynamically re-orientated to follow the changing orientations of the wireframes.

  Comparative techniques such as Nearest Neighbour and Kriging, were used to generate additional estimates for validation of the quoted resources.

  As sample intervals ranged from 0.2m to 6.0m, assays were composited to 1m intervals for the modelling. A total of 19,922 samples are within the wire frames;
- ***top cut*** – Top Cuts were selected for the 17 individual mineralized domains and sub-domains (ore zones) using a combination of cutting plots, histograms and probability plots. Top Cuts ranged from 4.5g/t Au to 40g/t Au.