King Island Scheelite Limited

Statement of JORC Ore Reserves, Dolphin Open Cut, as at 30 July 2015

September 2015

EXECUTIVE SUMMARY

Xenith Consulting (Xenith) has been commissioned by King Island Scheelite Limited (KIS) to prepare a Statement (the Statement) of the Ore Reserves for its fully owned Dolphin Open Pit Tungsten Project (Dolphin OC). The Statement has been undertaken in compliance with the requirements of the reporting guidelines of the 2012 Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, (the JORC Code 2012) which are aligned to the Committee for Mineral Reserves International Reporting Standards Definitions (the CRIRSCO Standard).

The Dolphin Tungsten Project is located at Grassy on the south-eastern side of King Island, Tasmania. King Island lies south of Melbourne, between mainland Tasmania and Victoria within Bass Strait. Figure ES.1.1 shows the location of King Island and its proximity to the Australian mainland and Tasmania while Figure ES.1.2 shows the location of the mine on King Island.

The original King Island Scheelite Mine operated intermittently from 1917 to 1990. Mining commenced as a non mechanized underground drift mine before an open cut mine was established in the 60's and 70's. A decline accessed underground mine was established in the late 1970's to access the deeper eastern end of the deposit. The underground operation recorded a total production of 2.6 Mt @ 1.0% WO_3 up to 1990 before low tungsten prices ceased operations. When operations ceased, the plant was dismantled, and the site rehabilitated to its existing condition. The current site consists of an open cut void which had filled with water but has now been pumped out to permit pre-mining operations to commence.

A number of project reviews and studies have been undertaken since 2004; in 2012 KIS completed a Definitive Feasibility Study (DFS) examining the mining of only underground ore from the Dolphin Mine and nearby Bold Head Mine as well as treatment of a portion of the tailings from the earlier operations. Following on from this study Xenith in conjunction with KIS have completed a PFS and are finalising a Feasibility level study around the extended open pit limit. The open cut consists of a highwall cutback of the existing the open cut void as well as some ore left in the previous pit floor. The final new highwall for the open cut will be used for future access to underground operations. This Reserve Statement covers only the ore within the open cut.

The current plan for the Dolphin Project involves dewatering of the existing Dolphin open pit, which has been completed, with production from the open cut mine (Dolphin OC) commencing 1st half of 2017. The construction of the processing plant will commence in Q2 2016.

The Dolphin OC is planned to mine and process approximately 450 ktpa of ore for eight years to produce WO_3 concentrate. This concentrate will be sold into a market with strongly growing demand and constrained supply.

A Mineral Resources Statement compliant with the 2012 JORC Code, dated April 2015, has been prepared by Mr. Tim Callaghan (the Competent Person). The Resources are estimated to total 9.6 Mt at a grade of 0.90% WO_3, all of which are classified Indicated. The Ore Reserves have been estimated using the same geological model as used in the April 2015 Mineral Resource Statement.

The Mineral Resource has been classified as Indicated Resource as there is a high degree of confidence in the simple geological model and the deposit is well drilled and understood. There is moderate confidence in the grade estimation at a global level given the high nugget effect and short range of variogram models and the reliance on historic data. Globally the resource tonnes and grade correlate well with historic production and resource estimation.

The Resources estimated over the entire geological model at a 0.2% WO_3 cut-off grade is summarised in **Table ES.1**.

Table ES.1 – Dolphin Project Total JORC Indicated Mineral Resources (April 2015)

0.20% WO_3 cut off		
Mt	WO_3 %	Tonnes WO_3
9.6	0.90	**86,400**

The Competent Person for the Reserve estimate is Scott McEwing of SRK Consulting. Open cut Ore Reserves have been estimated by applying modifying factors to the Mineral Resources. The modifying factors included practical pit limits which were based on the Breakeven Strip Ratio (BESR), determined using indicative operating costs, projected revenue. Other modifying factors included geotechnical parameters, recovery and dilution factors.

All the Reserves are classified based on the level of detail completed in the mine planning and also the level of confidence in the Resources. Resources are reported inclusive of Reserves (that is, Reserves are not additional to Resources). In the categorisation of Reserves Indicated Resource was classified as Probable Reserve.

At a 0.2% WO_3 cutoff an open Pit has been identified with a total of 3.14 Mt of Reserves at an average grade of 0.73% WO_3 at an average Run of Mine (ROM) strip ratio of 9.7 t/t. The Ore Reserves are summarised in **Table ES.2** below.

Table ES.2 – Open cut Ore Reserves at 30 June 2015

Reserve Category	Tonnes Mt	Wo_3 %
Proved	-	-
Probable	3.14	0.73
Total	**3.14**	**0.73**

Open cut Ore Reserves were previously estimated by Scott McEwing from SRK consulting as at September 2014 for a small scale cutback of the existing open cut pit. The update to the Ore Reserves is based on the April 2015 Mineral Resources. The updated Reserves are also based on the inclusion of a 2nd stage cut back, extending the ultimate pit limits to the east and also to a maximum depth of RL -140.

Underground Ore Reserves were previously estimated for the Dolphin Project by A.D Fudge from Polberro Consulting as at June 2011.

This Statement may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use the review for public reporting, must obtain prior written approval from the signatories of this Statement. This Statement has been prepared for the sole use of King Island Scheelite.

Figure ES.1.1 – General Location

Figure ES.1.2 – Project Location

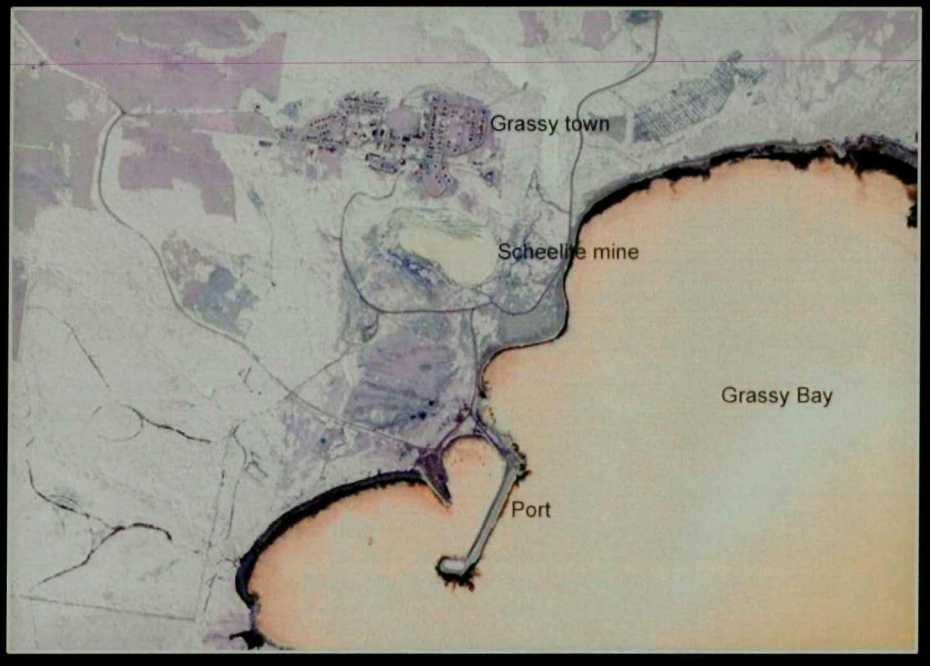


Figure ES.1.3 – Site Layout

Figure ES.1.4 – Regional Geology

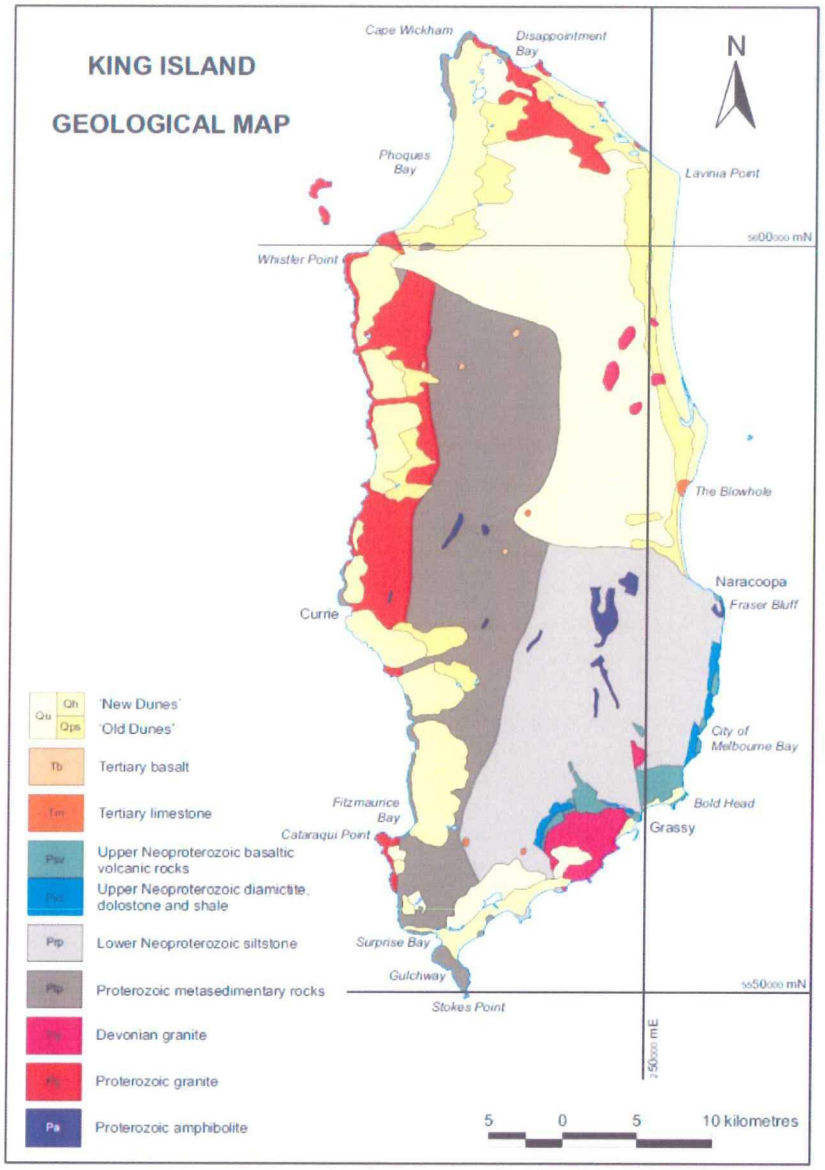


Figure ES.1.5 – Typical Cross Sections 1

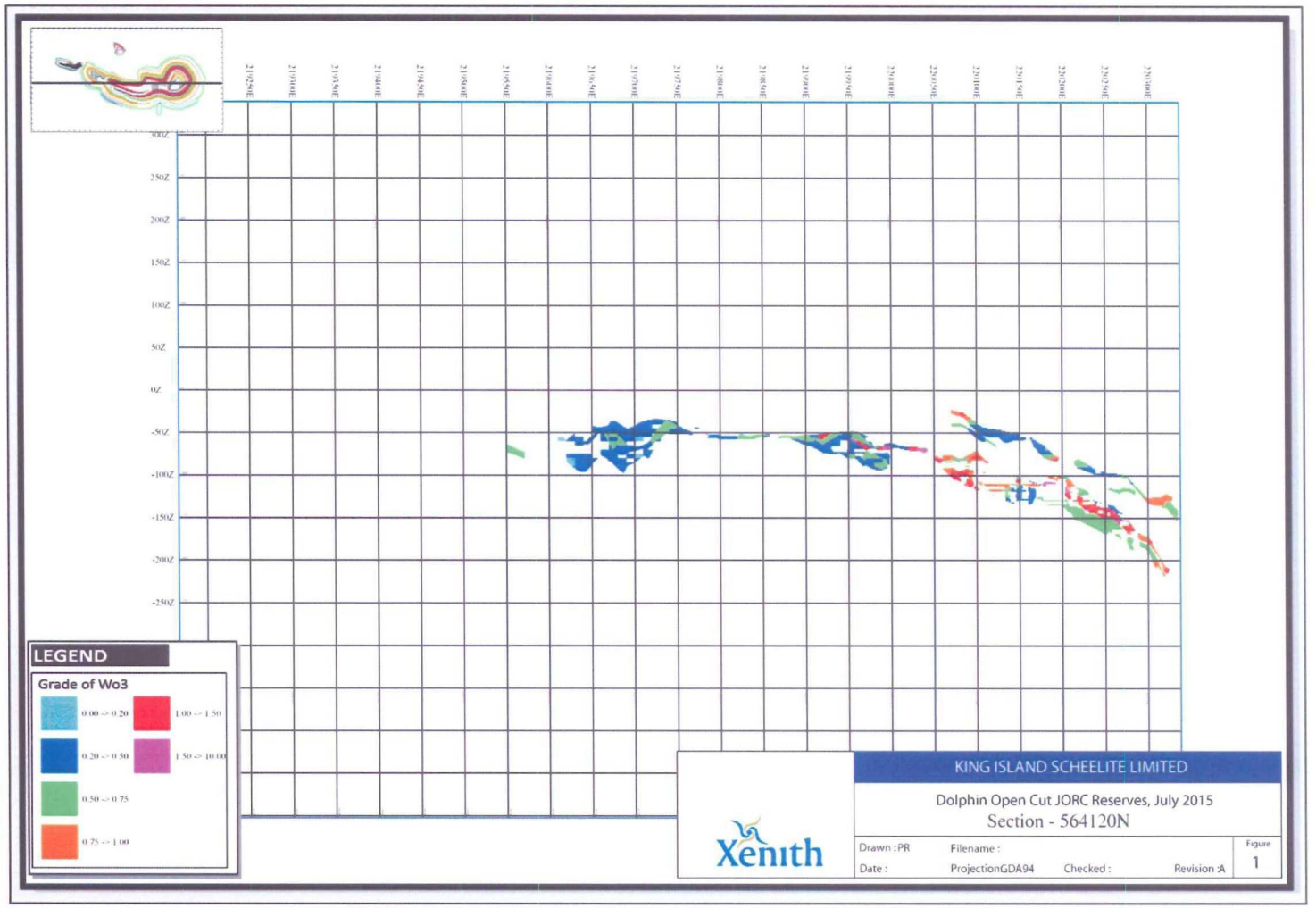


Figure ES.1.6 – Typical Cross Sections 2

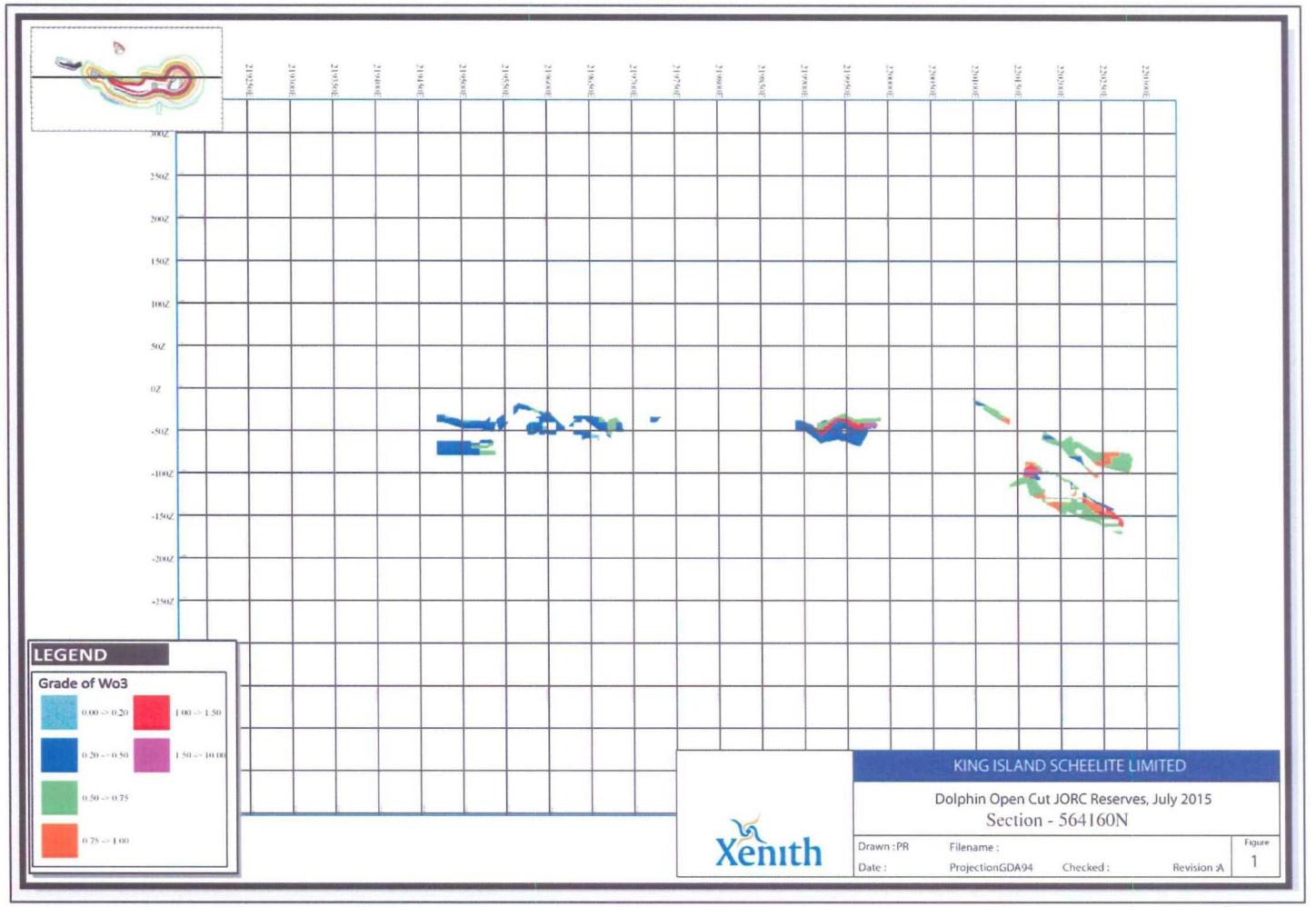


Figure ES.1.7 – Typical Cross Sections 3

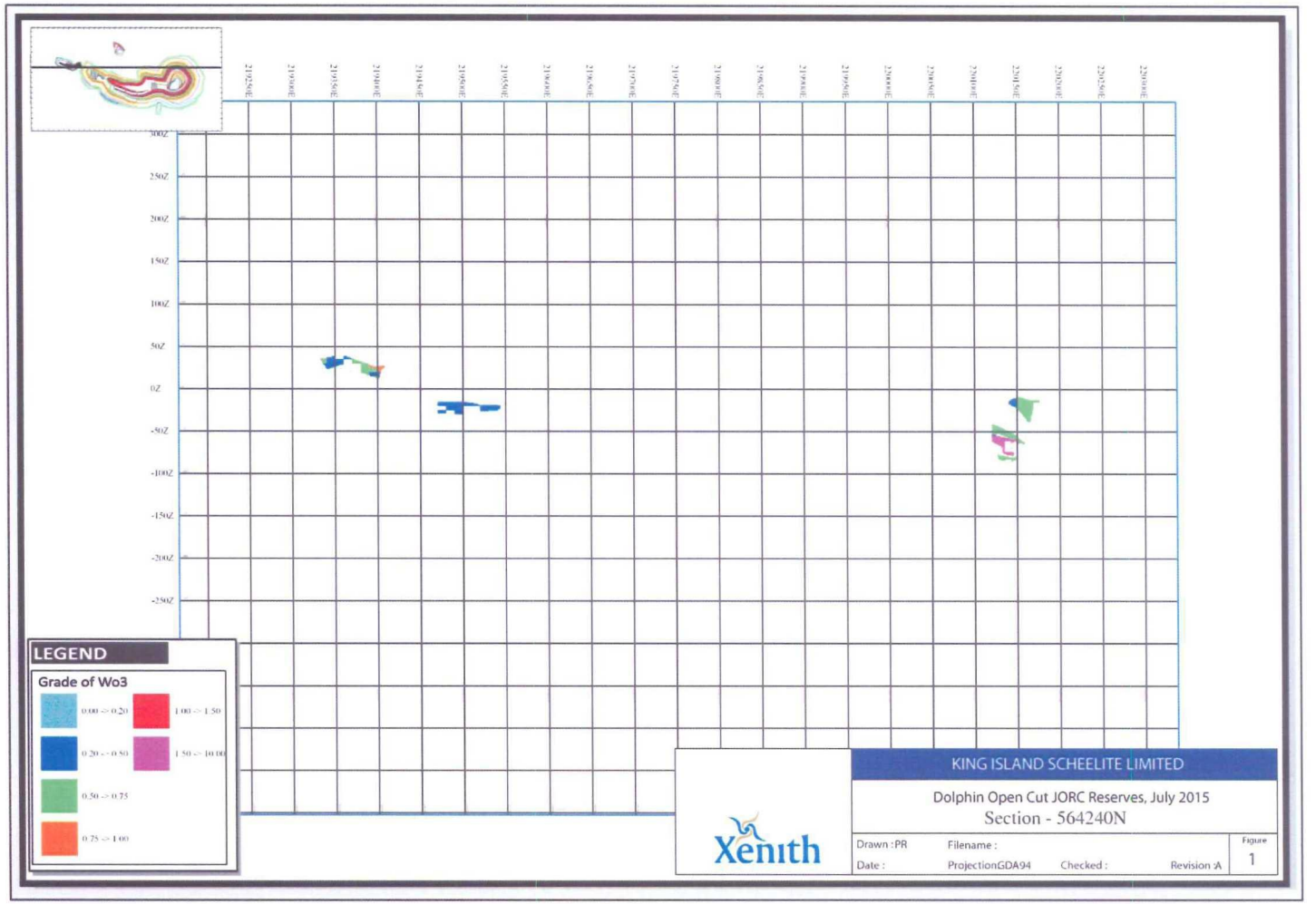


Figure ES.1.8 – Typical Cross Sections 4

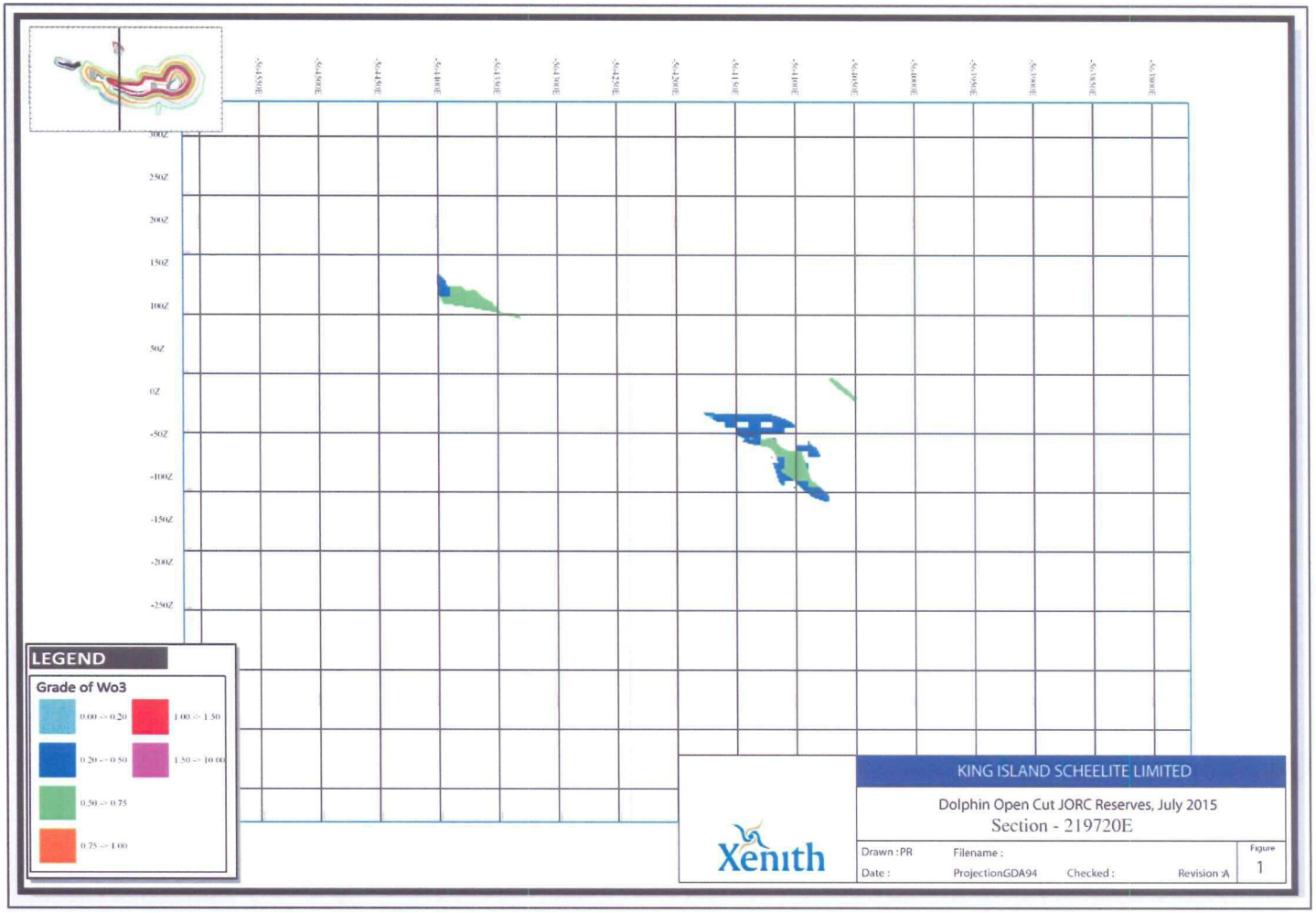


Figure ES.1.9 – Typical Cross Sections 5

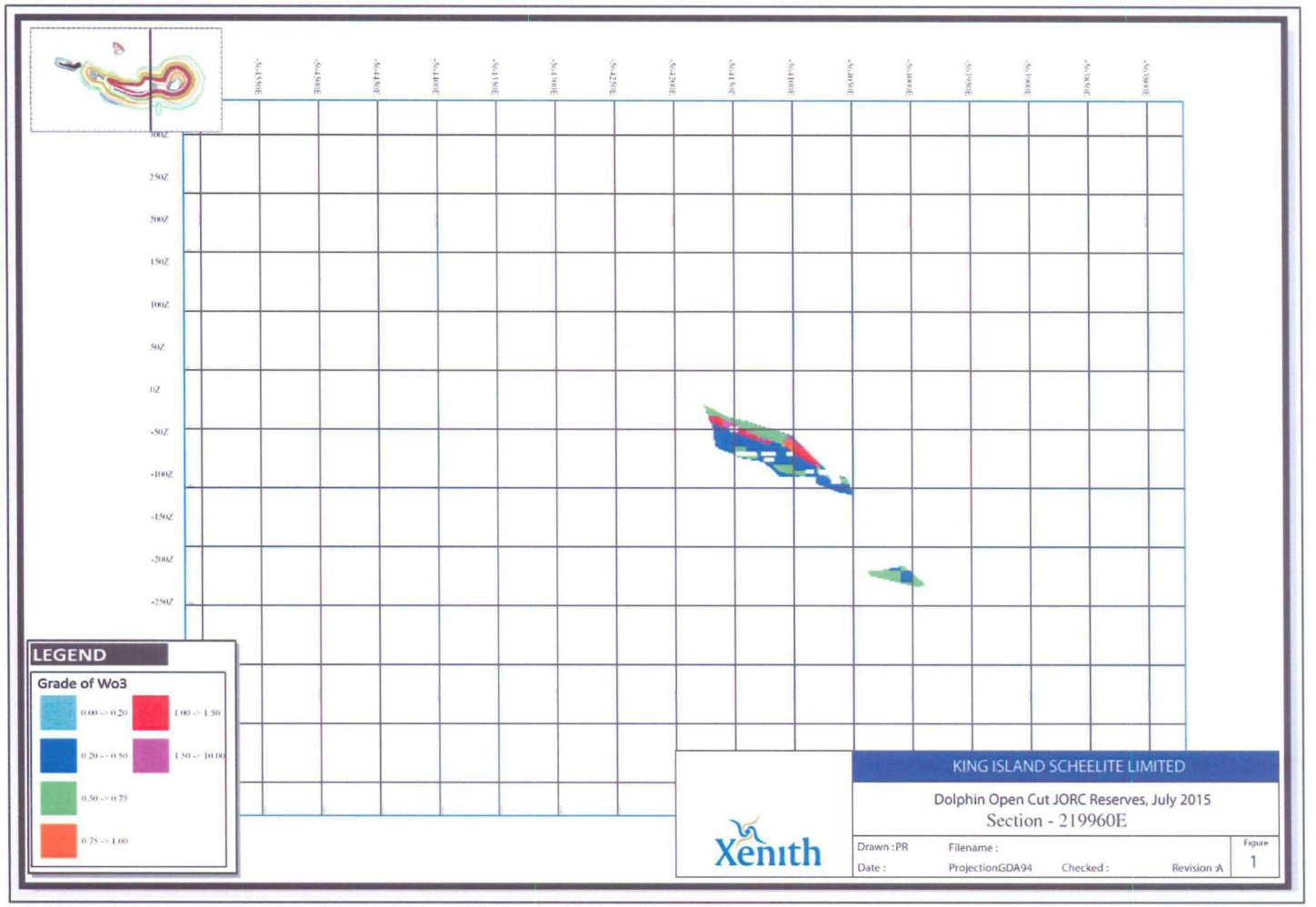


Figure ES.1.10 – Typical Cross Sections 6

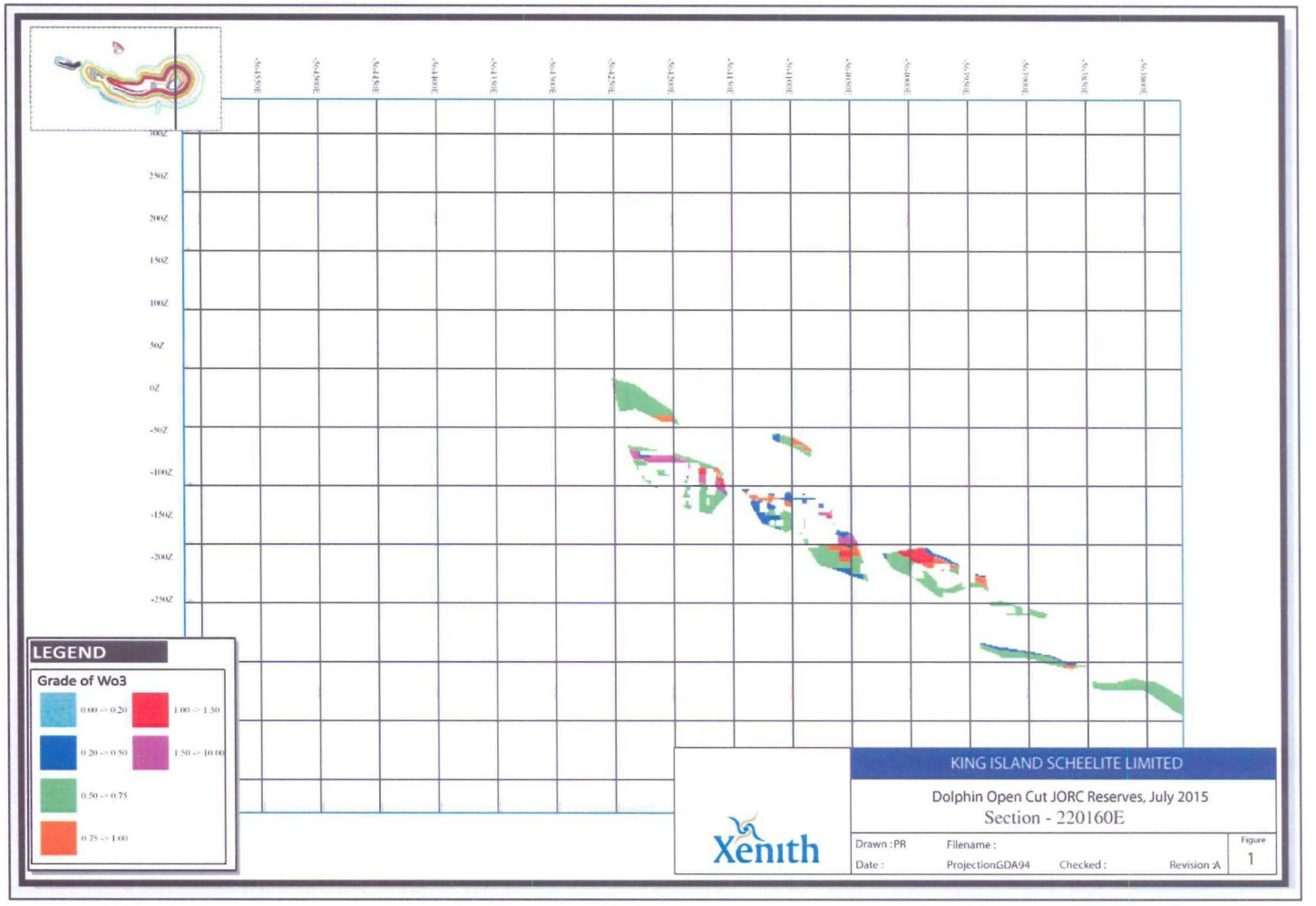
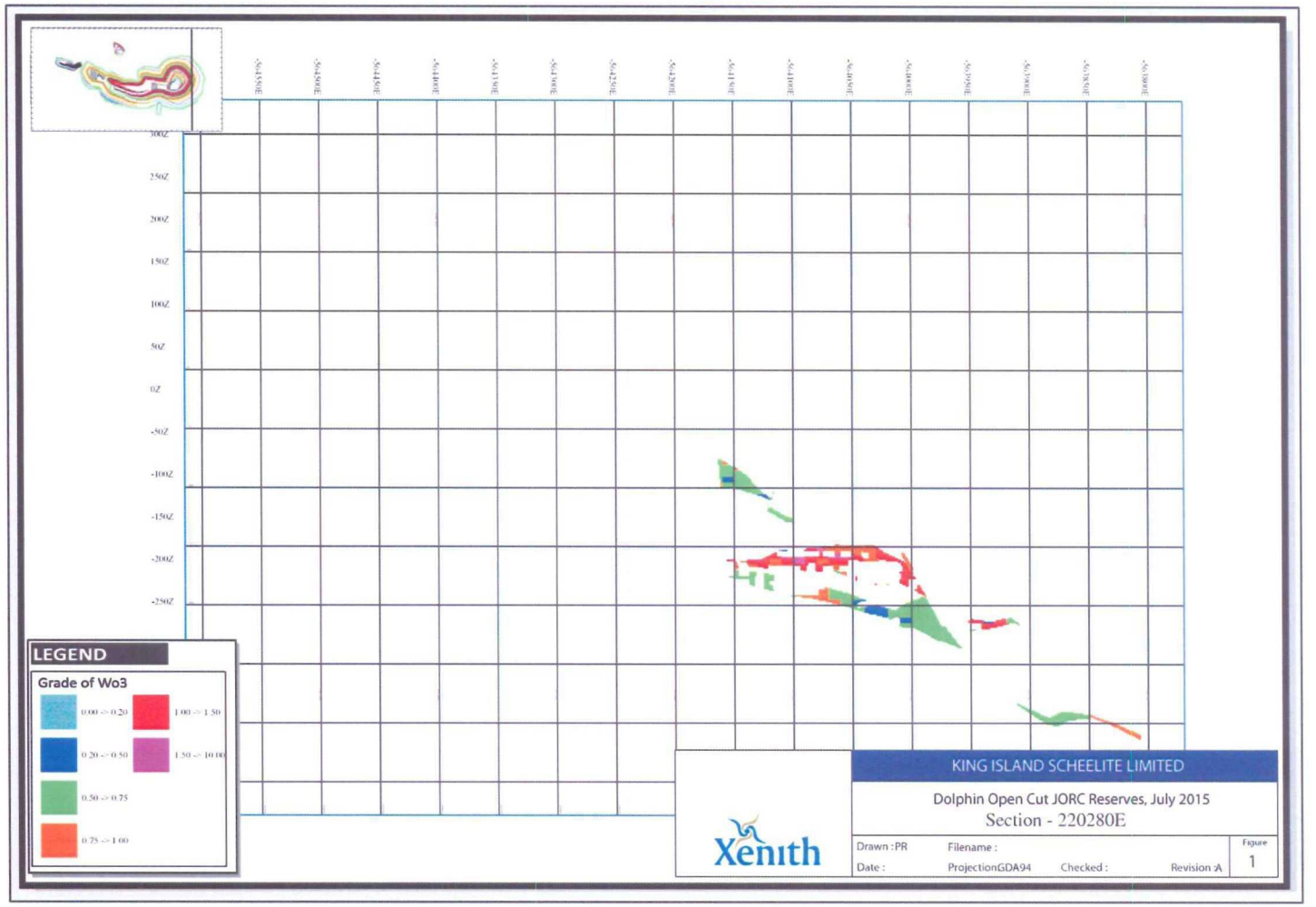


Figure ES.1.11 – Typical Cross Sections 7



Appendix A. TABLE 1 – JORC CODE (2012) COMPLIANCE CHECK LIST SUMMARY

Section 4 – JORC Estimation and Reporting of Ore Reserves

No.	Criteria	JORC Code explanation	Comment
1	Mineral Resource estimate for conversion to Ore Reserve	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources Statement was signed by Mr Tim Callaghan, an Independent Consultant. Mr Callaghan is an AUSIMM member and has sufficient relevant experience to qualify as a Competent Person. The Resources are estimated to total 9.6 Mt at a grade of 0.90% WO3, all of which are classified Indicated. The Reserves have been estimated using the same geological model as used in the April 2015 Resource Statement. The Mineral Resource reported is inclusive of the Ore Reserves.
2	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.	On the 29th June, 2014 Mr Scott McEwing visited the site.
3	Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Numerous studies have been conducted by KIS over the past decade. More recently, in early 2012, a positive Feasibility Study was completed based on the re-accessing of underground operations and retreatment of historic tailings. However, prevailing financial conditions have resulted in the project being shelved for the medium term. In 2013, Resource and Exploration Geology (REG) were requested to complete a desktop review on recovering remnant resources from within the historic open cut through minor pit extensions. This study found that a significant remnant resource from within the base of the historic Dolphin Mine open pit could be recovered through minor pit extensions. Consequently, Xenith were commissioned by KIS to complete a Prefeasibility study on the open cut, as well as Reserve Estimate for the Dolphin Open Cut Project to further assess its viability.

No.	Criteria	JORC Code explanation	Comment
4	Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	The mine planning and ultimate pit design was prepared based on the marginal cut-off grade of 0.2% WO_3.
5	Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	The mining method used to determine the Ore Reserve was conventional open pit mining using backhoe style hydraulic excavators loading off-highway dump trucks for both waste and ore mining. The in-situ ore was modified in order to simulate the mining process and the effects this has upon ore recovery, losses and dilution. The pit crest was limited to the east by the existing shoreline and the Grassy Fault. Geotechnical advice showed that if the pit wall passes through the Grassy fault the angle of the wall needs to be significantly laid backed. Therefore to avoid this scenario the pit crest remains to the west of the Grassy fault. Also due to the physical dimensions of the existing void and having to maintain ramp access to the bottom of the pit, the depth of the pit was constrained to RL-150. In summary the basis for the open pit limits were: • Location of the shoreline • Location of the Grassy fault • Extent of the ore body to the Reserve to the west and south • Existing void and the town of Grassy to the north. (apart from a small amount of ore located near surface in the north highwall) • RL-150 depth, which is the maximum depth based on ramp grade. Xenith has used the Whittle open pit optimsation software to verify the economics of the pit limit. This software uses the Lerchs-Grossmann algorithmn. This technique determines the maximum sized pit that can be mined until the final walls represent marginal or break even material. The outcomes of this exercise proved the pit limit determined by the physical constraints lay well within the economic limit determined by the optimiser. 15 cm loss and 15 cm dilution was applied to all mineralization in the block model, along any block edge that was immediately adjacent a waste block. An independent geotechnical report by PSM formed the basis for the pit design parameters.

No.	Criteria	JORC Code explanation	Comment
			Design parameters for the pit include: • 30° batters in the upper pit, above base of sand and through old waste dump material. • Safety berm width of 20 m at base of sand/ top of fresh rock. • 20 m bench heights at a cut angle of 65° in the lower pit, below the base of sand. • Berm widths of 10 m in the lower pit. • Total pit slope 45-50°. • 20 m single-truck, 10% grade starting from south wall. No inferred resources were modelled in the Mineral Resource model hence the project is completely insensitive to inferred resources.
6	Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	During the past 8 years a great deal of laboratory testing has been undertaken on King Island ores to find the most appropriate and cost effective way of producing a saleable scheelite concentrate from the Dolphin ores. The proposed treatment method at King Island is to process the ore in two stages. The first stage was gravity separation, where the coarser particles of scheelite in the ore are recovered from the ground feed slurry and concentrated using spirals, tables, magnets and flotation to remove sulphides. The chosen process flow sheet includes three stage crushing to reduce the run of mine ore from minus 600mm to minus 13mm, followed by primary grinding in a wet ball mill to minus 150 microns. The classified slurry from grinding is fed to gravity separation, using spirals, where up to 33% of lower specific gravity gangue material is separated from this stream and sent to tails. The remaining material from the gravity process is classified and the coarse fraction reground to 75 microns then fed to a 2 stage flotation circuit. Rougher flotation concentrate is fed to Concentrate Dressing and Scavenger flotation concentrate is returned to the head of the rougher circuit. The reagents used are Soda ash, Sodium silicate and a modified soap based collector. These reagents are all available in Australia and relatively inexpensive. A more detailed description of the proposed treatment method at King Island included in

No.	Criteria	JORC Code explanation	Comment
			the JORC Statement documentation.
7	Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	KIS has previously applied, and received approval from King Island Council in 2006, for the development of a large open pit and processing plant at the Dolphin mine site. In 2011 KIS commissioned a revised Environmental Effects Report (EER) to detail a tailings and underground mining operation and compares them against the mining operations for which the Development Application (DA) was granted. Following the review by the Tasmanian Environment Protection Authority issued a set of amended conditions within an Environmental Protection Notice under which future mining activities will be regulated by the Environment Protection Authority (EPA). The 2012 DFS had the required EPA and Council approvals in place and all of the baseline testing for noise, dust and the levels of flora and fauna on the site had been completed to allow the project to proceed. These approvals are now being reviewed to assess what effect the changes to open cut mining and surface deposition of waste rock will have. KIS has recently engaged with the Tasmanian EPA and King Island Council to explain the likely changes in project impact to the local community and the environment. KIS has also held a community consultation evening at Grassy to answer questions from the public on the current project. King Island Council have formally advised KIS that the amended mining operations would not trigger any requirement for a further development application to be lodged or a permit issued.
8	Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Development of the site will involve the reinstatement of the old mine Infrastructure and will necessitate the design and construction of: • upgrade the access roads to the site • site run off dam • an administration office, change rooms and associated ablutions and sewage disposal system • heavy vehicle workshop and fuel storage • raw water pumping station and pipeline • potable water supply

No.	Criteria	JORC Code explanation	Comment
			• explosives storage
9	Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	Xenith has developed operating costs from 1st principles using mine owner equipment fleet. Xenith utilised its in house equipment database and cost model to develop operating and capital costs for the open cut, which were then fed into the KIS economic model to determine the Project NPV. In addition KIS supplied Xenith with its own internal budget estimate. Xenith has independently reviewed these costs and is of the opinion the costs used (both capital and operating) are in line with the costs developed from 1st principles and are appropriate for this style of deposit and are in line with similar sized mines in Australia. The commodity pricing has been taken from an independent study and checked against current market pricing. Sensitivities indicate the project is robust against price fluctuations and exchange rates. The majority of the budget costs supplied by KIS are based on quotes from suppliers. All costs and revenues were estimated in AUD.
10	Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	The APT price is currently approximately $USD 210 per mtu, however the long term forecast is for the APT price to increase beyond $USD 350 per mtu by 2017/18. The APT price will be discounted by the purchaser for KIS concentrate by 20% for the lower (55% WO3) grade of concentrate and by a further 3% for high molybdenum content.
11	Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the	An independent market assessment has been previously commissioned for the project. This included commentary on supply and demand. The study indicated that Tungsten is used in many diverse commercial, industrial and military applications. The marketing report is summarised in the JORC Statement and included as an Appendix to the PFS document.

No.	Criteria	JORC Code explanation	Comment
		product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	
12	*Economic*	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	An economic model was developed from 1st principles using mine owner equipment fleet. Xenith utilised its in house equipment database and cost model to develop operating and capital costs for the open cut, which were then feed into the KIS economic model to determine the Project NPV. The potential future underground mine and reclamation of tailings has not been included in the economic analysis of the open cut for the purposes of estimating Reserves. However the full capital cost of the processing plant and site establishment was allocated to the open cut. Sensitivities' were conducted on the economic model, with the project found to be sensitive to both APT price, exchange rate and plant recovery.
13	Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	KIS has recently engaged with the Tasmanian EPA and King Island Council to explain the likely changes in project impact to the local community and the environment. KIS has also held a community consultation evening at Grassy to answer questions from the public on the current project. King Island Council have formally advised KIS that the amended mining operations would not trigger any requirement for a further development application to be lodged or a permit issued.
14	Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and	No issues noted.

No.	Criteria	JORC Code explanation	Comment
		statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
15	Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Ore Reserves have been classified based on the confidence of the Mineral Resources, the level of detail in the mine planning, and the level of risk associated with the Project. Generally, Indicated Resources have been classified as Probable Reserves and Measured Resources within the pit shell have been classified as Proved Reserves. No Inferred Resources have been used in this estimate.
16	Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	As per findings in this review, plus internal reconciliation and peer review
17	Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. • 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 relative confidence in the Ore Reserve estimation is high. This is due to the following: • The economics have been modelled as robust with sensitivity to cost and revenue low. • The orebody is well understood and well-studied. • Additional resource drilling is currently planned for 2015 prior to the planned commencement of mining. • Dewater of the open pit is completed indicating a commitment to the project development

No.	Criteria	JORC Code explanation	Comment
		• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	