ASX Announcement | October 08, 2020

# Pan Asia Metals
# Technical Reports for PAM Projects

Specialty metals explorer and developer **Pan Asia Metals Limited (ASX: PAM) ('PAM' or 'the Company')** is pleased to release technical reports relevant to the projects PAM has in its portfolio as at this date.

Ends

**Authorised by:**
Board of Directors

PAN ASIA METALS LIMITED
Level 3, 8 Robinson Road, ASO Building, Singapore, 048544
Level 23, 52 Thaniya Plaza, Silom Road, Bangrak, Bangkok, 10500
www.panasiametals.com

# Pan Asia Metals Limited
# Independent Technical Assessment Report

**J_2524**


Principal Author:

Jason Froud, *BSc (Hons), Grad Dip (Fin Mkts)*, MAIG

Principal Reviewer:

Ian Glacken BSc (Hons), MSc, *FAusIMM(CP), FAIG, CEng*


July 2020

**Perth Office**

Level 1, 16 Ord Street
West Perth WA 6005

PO Box 1646
West Perth WA 6872
Australia

Tel: +61 8 9215 0000
Fax: +61 8 9215 0011

Optiro Pty Limited
ABN: 63 131 922 739
www.optiro.com

Doc Ref:

20200624 PAM CPR_PAM eds.docx

Number of copies:

Optiro: 1

Pan Asia Metals Limited: 1

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|---|---|---|---|
| Principal Authors: | Jason Froud<br>*BSc Hons, Grad Dip (Fin Mkts), MAIG* | Signature: | |
| | | Date: | 8 July 2020 |
| Contributors: | | | |
| Principal Reviewer: | Ian Glacken BSc (Hons), MSc, *FAusIMM(CP), FAIG, MIMMM, CEng* | Signature: | |
| | | Date: | 8 July 2020 |

Important Information:

This Report is provided in accordance with the proposal by Optiro Pty Ltd ('Optiro') to Pan Asia Metals Limited and the terms of Optiro's Consulting Services Agreement ('the Agreement'). Optiro has consented to the use and publication of this Report by Pan Asia Metals Limited for the purposes set out in Optiro's proposal and in accordance with the Agreement. Pan Asia Metals Limited may reproduce copies of this entire Report only for those purposes but may not and must not allow any other person to publish, copy or reproduce this Report in whole or in part without Optiro's prior written consent.

Optiro has used its reasonable endeavours to verify the accuracy and completeness of information provided to it by Pan Asia Metals Limited which it has relied in compiling the Report. We have no reason to believe that any of the information or explanations so supplied are false or that material information has been withheld. It is not the role of Optiro acting as an independent technical expert to perform any due diligence procedures on behalf of the Company. The Directors of the Pan Asia Metals Limited are responsible for conducting appropriate due diligence in relation to mineral projects. Optiro provides no warranty as to the adequacy, effectiveness or completeness of the due diligence process.

The opinion of Optiro is based on the market, economic and other conditions prevailing at the date of this report. Such conditions can change significantly over short periods of time.

The statements and opinions included in this report are given in good faith and in the belief that they are not false, misleading or incomplete. The terms of engagement are such that Optiro has no obligation to update this report for events occurring subsequent to the date of this report.

Level 1, 16 Ord Street
West Perth WA 6005
PO Box 1646
West Perth WA 6872
Australia

T: +61 8 9215 0000
F: + 61 8 9215 0011

8 July 2020 Our Ref: J_2524

The Directors,
Pan Asia Metals Limited
Level 3, 8 Robinson Road,
ASO Building,
Singapore, 048544

Dear Sirs

# INDEPENDENT TECHNICAL ASSESSMENT REPORT

At the request of Pan Asia Metals Limited (Pan Asia or the Company), Optiro has prepared an Independent Technical Assessment Report (Report) on the mineral assets held by Pan Asia. This Report has been prepared in accordance with the Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 Edition (the VALMIN Code, 2015), the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012) and additionally the Australian Securities and Investment Commission (ASIC) Regulatory Guides 111, 112 and 228.

This Report represents an independent assessment of the geology, exploration data, exploration targets and studies completed on the various mineral assets. It is our understanding that this Report will be included in the Prospectus to be published by the Company in connection with the proposed admission of the shares in the Company to trading on the ASX. Optiro has been informed by Pan Asia that the principal purpose of the offering is to raise funds to complete further exploration, including geophysical surveys and the drilling of existing geophysical anomalies and defined Exploration Targets with the aim of converting to Mineral Resources.

The mineral assets of Pan Asia and its 100% owned subsidiaries comprise the Khao Soon tungsten project, the Reung Kiet and Bang Now lithium projects, all located in Thailand, and the Minter tungsten, project located in NSW, Australia. Optiro understands that the Minter tungsten deposit has been reported on elsewhere in this prospectus. At the Khao Soon project, Pan Asia has generated a drill-supported Exploration Target of 15 to 29 Mt at $WO_3$ grades of between 0.2 and 0.4%. Optiro notes that the potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The objectives of this Report are to provide an overview of the geological setting of the mineral assets and the associated mineralisation, outline the recent and historical exploration work undertaken over the project areas, report on the Exploration Targets defined within the project area and comment on the completed exploration work with regards to project prospectivity.

Pan Asia has provided to Optiro drilling and sampling data and other information generated by Pan Asia, its subsidiaries and by previous owners of the mineral assets. A virtual site inspection of the Thai assets was carried out by Jason Froud of Optiro between 18 and 19 June 2020 to establish reasonable grounds as to the soundness and conclusions of the data presented. Optiro understands that there have been no material changes to the Project since its site visit. Furthermore, Optiro has based its assessment of the mineral assets on a review of the technical information compiled by Pan Asia and its consultants.

Based on Optiro's assessment of Pan Asia's mineral assets, it is our opinion that they are of value and present exploration potential as presented. Optiro has considered the expenditure schedules, studies and programmes outlined by Pan Asia and considers them to be reasonable and appropriate to progress the project. However, all exploration projects are subject to risks from unforeseen future issues and events beyond the control of the company; in this sense, Pan Asia is no exception.

Consent has been sought from Pan Asia and its representatives to include technical information and opinions expressed by Pan Asia. No other entities referred to in this Report have consented to the inclusion of any information or opinions and have only been referred to in the context of reporting any relevant activities.

Optiro has prepared this Report upon the understanding that the mineral assets held by Pan Asia are currently in good legal standing, and has not independently verified Pan Asia's legal tenure over its tenements. Optiro is not qualified to make statements in this regard, and has relied upon information provided by Pan Asia.

Optiro has endeavoured, by making reasonable enquiry of Pan Asia, to ensure that all material information in the possession of Pan Asia has been fully disclosed. However, Optiro has not carried out any type of audit of the records of Pan Asia to verify that all material documentation has been provided. A final draft version of this Report was provided to the Directors of Pan Asia, along with a request to confirm that there are no material errors or omissions in the Report and that the technical information and interpretations provided by them and reflected in the Report are factually accurate. Confirmation of these terms has been provided in writing and has been relied upon by Optiro. Optiro has based its findings upon information supplied up until 8 July 2020.

Optiro is an independent consulting and advisory organisation which provides a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. Optiro and the reviewer of this Report declare that they have no material interest in Pan Asia, their associated entities or in the assets described in this Report. Optiro has charged Pan Asia a professional fee for services rendered, the quantum of which is unrelated to the outcome or the content of this Report.

Yours sincerely
**OPTIRO PTY LTD**

CHARTERED PROFESSIONAL THE AUSTRALASIAN INSTITUTE OF MINING AND METALLURGY IAN M GLACKEN GEOLOGY

**J C Froud** *BSc(Hons), Grad Dip (Fin Mkts) MAIG*
**Principal**

**I Glacken** *BSc (Hons), MSc (Geostatistics), DIC, FAusIMM(CP), FAIG, MIMMM, CEng*
**Director and Principal**

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# 1. EXECUTIVE SUMMARY

## 1.1. PURPOSE

At the request of Pan Asia Metals Limited (Pan Asia or the Company), an Independent Technical Assessment Report (Report) on the mineral assets held by Pan Asia has been prepared by Mr Jason Froud (Principal), and was reviewed by Mr Ian Glacken (Director and Principal) both of Optiro Pty Ltd (Optiro). This Report represents an independent assessment of the geology, exploration data, exploration targets and studies completed on the various mineral assets. It is our understanding that this Report will be included in the Prospectus to be published by the Company in connection with the proposed admission of the shares in the Company to trading on the ASX. Optiro has been informed by Pan Asia that the principal purpose of the offering is to raise funds to complete further exploration, including geophysical surveys and drilling of existing geophysical anomalies and defined Exploration Targets, with the aim of converting some or all of these to Mineral Resources.

The mineral assets of Pan Asia and its 100% owned subsidiaries comprise the Khao Soon tungsten project, the Bang Now and Reung Kiet lithium projects, all located in Thailand, and the Minter tungsten project, located in NSW, Australia. At the Khao Soon project, Pan Asia has generated a drill-supported Exploration Target of 15 to 29 Mt at between 0.2 and 0.4% $WO_3$. Optiro notes that the potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

## 1.2. KHAO SOON PROJECT

The Khao Soon tungsten project is located approximately 600 km south of Bangkok in Nakhon Si Thammarat Province, Southern Thailand. Pan Asia currently holds one special prospecting license and two special prospecting license applications, which together cover a total area of approximately 34 km².

Within the project area, the Khao Soon deposit was discovered in 1970. After discovery, large-scale illegal mining commenced, with an estimated 30,000 people working the area. The Khao Soon deposit was a significant underground tungsten mine which operated for approximately 10 years up to 1979/80. The primary tungsten mineralisation is hosted within brecciated-fractured silicified sedimentary rocks.

The project area hosts a number of tungsten prospects, and Pan Asia's drilling results, supported by surface sampling and mapping, have provided Pan Asia with sufficient information to estimate an Exploration Target, in accordance with the guidelines of the JORC Code (2012). The tonnage and grade potential of the Exploration Target is in the range of 15 to 29 Mt at grades of between 0.2% and 0.4% $WO_3$ (Table 4.1). The potential quantity and grade of the Exploration Target is conceptual in nature. Optiro notes that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

## 1.3. REUNG KIET PROJECT

The Reung Kiet lithium project is located approximately 70 km northeast of Phuket in the Phang Nga Province, southern Thailand. Pan Asia holds a 100% interest in 3 contiguous Special Prospecting Licences (SPL), collectively covering about 38 km².

The Reung Kiet project area was part of a major tin mining region up until the mid-1980s, but there is little detailed information available regarding previous exploration and mining in the area. Two historical open pit tin mines are present within the project area, Reung Kiet and Bang I Tum.

Lithium mineralisation (within lepidolite) is associated with the pegmatite dykes and veins which intrude the local stratigraphy. The pegmatites are chiefly composed of quartz, albite and lepidolite, with minor cassiterite and tantalite, as well as other accessory minerals, including some rare earths.

### 1.4. BANG NOW PROJECT

The Bang Now Lithium Project is located in Chumporn Province, approximately 480 km west-southwest of Bangkok and 140 km north of the Reung Kiet Lithium Project. Bang Now consists of two Exploration Prospecting Licences that cover approximately 5 $km^2$.

Within the project area, Pan Asia has located historical mining activities with abundant tailings containing gravel to boulder sized lepidolite-bearing pegmatite, as well as quartz and meta-sediments. Pegmatite is visible in several old mine faces and has been sampled where possible. The Bang Now project is at a relatively early stage of assessment and further early stage, on-ground exploration is required to determine potential drilling targets.

### 1.5. EXPLORATION AND DEVELOPMENT POTENTIAL

In Optiro's opinion, Pan Asia's Thai projects are of merit and worthy of further exploration. The planned work is appropriate for the various development stages of the prospect areas and will provide suitable data to assess the technical risks or the further exploration potential of the prospects.

There are a number of highly prospective exploration opportunities within the Khao Soon project and good potential to define Mineral Resources with further exploration. Other targets at Khao Soon remain to be drilled, and there are several deeper geophysical targets that require drill testing. There are at least 10 individual prospect/target areas within the Khao Soon project.

At the Reung Kiet project, lithium-bearing pegmatites are known beneath the old open cuts and strike extensions at both the Reung Kiet and Bang I Tum prospects. Pan Asia's future exploration work will focus on drilling both prospects and there is good potential to define Mineral Resources at the Reung Kiet project.

The Bang Now project is at early stage of assessment, but based on initial rock chip sampling is of merit and worthy of further exploration.

## 2. INTRODUCTION AND TERMS OF REFERENCE

### 2.1. TERMS OF REFERENCE

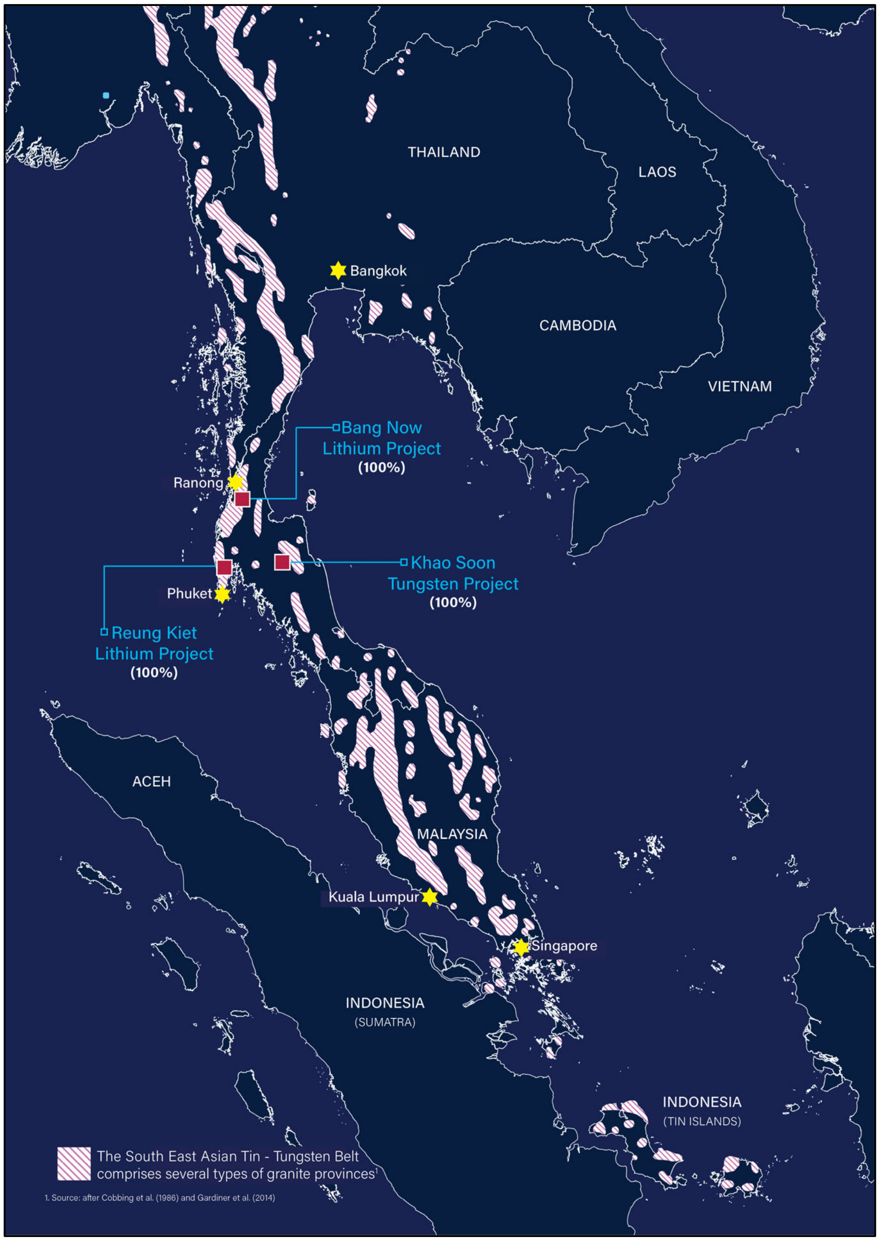
At the request of the Company, an Independent Technical Assessment Report (Report) on the Thai mineral assets of Pan Asia has been prepared.

This Report represents an independent assessment of the geology, exploration data, exploration targets and studies completed on the various mineral assets. It is our understanding that this Report will be included in the Prospectus to be published by the Company in connection with the proposed admission of the shares in the Company to trading on the ASX. Optiro has been informed by Pan Asia that the principal purpose of the offering is to raise funds to complete further project assessment, including drilling and assaying, metallurgical studies, mapping, geochemistry and geophysics.

Pan Asia is a Singapore registered, Southeast Asian-focused specialty metals exploration and development company. The mineral assets of Pan Asia and its 100% owned subsidiaries comprise the Khao Soon tungsten project and the Bang Now and Reung Kiet lithium projects, all located in Thailand (Figure 2.1). The Minter tungsten project, located in NSW, Australia is reported on elsewhere in this prospectus. At the Khao Soon project, Pan Asia has generated a drill supported Exploration Target of 15 to 29 Mt at 0.2 to 0.4% $WO_3$. Optiro notes that the potential quantity and grade of the Exploration

Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

**Figure 2.1 Location of Pan Asia's Thailand projects**




This report has been prepared by Mr Jason Froud (Principal) and was reviewed by Mr Ian Glacken (Director and Principal) both of Optiro. This report has been prepared in accordance with the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 Edition (the VALMIN Code, 2015), the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012) and the Australian Securities and Investment Commission (ASIC) Regulatory Guides 111, 112 and 228.

Mr Jason Froud and Mr Ian Glacken meet the competency criteria as set out under Section 11 of the JORC Code, 2012 and Section 3.1 of the VALMIN Code, 2015. Mr Froud (MAIG) is responsible for this report. Mr Froud is a Principal Consultant with Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation, type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as described by the JORC Code, 2012. Mr Froud consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The objectives of this report are to provide an overview of the geological setting of Pan Asia's mineral assets and the associated mineralisation, outline the recent and historical exploration work undertaken over the Project area, report on the Exploration Target defined within the project areas and comment on the exploration potential of the Project and the proposed future work.

Consent has been sought from Pan Asia's representatives to include technical information and opinions expressed by them. No other entities referred to in this Report have consented to the inclusion of any information or opinions and have only been referred to in the context of reporting any relevant activities.

## 2.2. VALIDATION OF TENURE

Optiro has prepared this report upon the understanding that the mineral licences held by Pan Asia are currently in good legal standing. Optiro has not independently verified Pan Asia's legal tenure over its tenements and has relied on information provided by Pan Asia. Optiro understands that Pan Asia has completed its own review of the tenement status which is included elsewhere in Pan Asia's Prospectus. Among other things, this report provides an opinion on Pan Asia's licences, forfeiture risk and royalties.

Optiro is not qualified to provide a legal opinion on the status of the granted project licences but has reviewed the licence permits and records and found them to be in good order. Accordingly, Optiro is satisfied that Pan Asia currently has good and valid title to the described granted licences required to explore and undertake project development on the project in the manner proposed. Pan Asia has met or exceeded licence expenditure and met licence conditions, and Optiro considers it likely that the licences will be renewed as and when required. Any future commercial exploitation of mineralisation will, however, require the grant of a mining lease.

**Table 2.1 Thailand exploration tenure (source: Pan Asia)**

| Project | Licence | Type | Company | Area ($km^2$) | Grant | Term | Expl. Commitment[1] |
|---|---|---|---|---|---|---|---|
| Reung Kiet | JSPL 1/2562 | SPL | Siam Industrial Metal Company Ltd | 12.3 | 15 Feb 19 | 5 yrs | Year 1 A$21,000<br>Year 2 on: A$171,000 |
| Reung Kiet | JSPL 2/2562 | SPL | Siam Industrial Metal Company Ltd | 12.7 | 15 Feb 19 | 5 yrs | Year 1 A$21,000<br>Year 2 on: A$171,000 |
| Reung Kiet | JSPL 3/2562 | SPL | Siam Industrial Metal Company Ltd | 11.9 | 15 Feb 19 | 6 yrs | Year 1 A$21,000<br>Year 2 on: A$171,000 |
| Bang Now | AEPL 1/2561 | EPL | Pan Asia 3 Metals (Thailand) Co. Ltd | 3.5 | 14 Feb 20 | 2 yrs | Year 1 A$82,500<br>Year 2 on: A$92,800 |
| Bang Now | AEPL 2/2561 | EPL | Pan Asia 3 Metals (Thailand) Co. Ltd | 1.5 | 14 Feb 20 | 2 yrs | Year 1 A$36,000<br>Year 2 on: A$40,500 |
| Khao Soon | TSPLA 1/2549 (application) | SPL | Thai Mineral Ventures Co. Ltd | 11.0 | 30 Mar 07 (appl. date) | 5 yrs | Year 1 A$13,000<br>Year 2 on: A$85,500 |
| Khao Soon | TSPL 1/2563 | SPL | Thai Mineral Ventures Co. Ltd | 7.1 | 14 May 20 | 5 yrs | Year 1 A$10,500<br>Year 2 on: A$84,000 |
| Khao Soon | TSPLA 1/2562 (application) | SPL | Thai Mineral Ventures Co. Ltd | 15.9 | 25 Sep 19 (appl. date) | 5 yrs | Year 1 A$19,750<br>Year 2 on: A$165,761 |

[1] Exploration commitment assumes an exchange rate of A$1 : 21 THB

Within Thailand, Pan Asia holds four granted SPLs, two SPL applications and two granted EPLs covering approximately 75.9 $km^2$ across their project areas (Table 2.1 and Figure 2.1). Mineral licence definitions are provided in Section 3.2.2. All tenements and applications are 100% held by Pan Asia through various subsidiary companies. Total annual expenditure requirements on the tenements totals A$224,750 in their first year, increasing to $1,206,311 in subsequent years.

Optiro in particular notes that the Khao Soon licence TSPLA 1/2549 remains in application. Much of the land within TSPLA 1/2549 which contains the historical Khao Soon tungsten mine is classified as Conserve Forest and Watershed Class 1. The grant of this application is subject to approval of the Council of Ministers of Thailand (the cabinet). Optiro notes that there is no certainty of grant for TSPLA 1/2549, but Pan Asia remains in active discussions with the DPIM and MOI on this application.

### 2.3. RESPONSIBILITY FOR THE INDEPENDENT TECHNICAL REPORT

This report was prepared by Mr Jason Froud (Principal), and was reviewed by Mr Ian Glacken (Director and Principal), both of Optiro.

This report has been prepared in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 Edition (the JORC Code) and the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 Edition (the VALMIN Code). The author and reviewer of this report are Members of the Australian Institute of Geoscientists (MAIG), and therefore are obliged to prepare mineral asset valuations in accordance with the VALMIN Code.

In developing its technical assumptions for the report, Optiro has relied upon information provided by Pan Asia and its consultants, as well as information obtained from other public sources. The material on which this report is based includes internal and open-file project documentation, technical reports, drill hole and other exploration databases.

Optiro has independently reviewed all relevant technical and corporate information made available by the management of Pan Asia, which was accepted in good faith as being true, accurate and complete, having made due enquiry of Pan Asia. Optiro has additionally sourced publicly available information relative to Pan Asia's mineral assets.

Pan Asia has provided to Optiro the drilling and sampling data and other information generated by Pan Asia and by previous owners of the project areas. Due to travel restrictions associated with the COVID-19 pandemic, Optiro has not completed a site visit. A virtual site inspection using video conferencing technology was carried out by Mr Froud over 18 and 19 June 2020 to establish reasonable grounds as to the soundness and conclusions of the data presented. Optiro considers that a virtual site inspection is less likely than a physical inspection to reveal any material project information and that some additional residual risk will remain as a consequence of the virtual site visit. Optiro is, however, satisfied that sufficient current information was available to make an informed evaluation of Pan Asia's Thai projects. Optiro understands and Pan Asia confirms that there have been no material changes to the Project area since its site visit.

## 3. THAILAND LEGAL AND GEOLOGICAL OVERVIEW

### 3.1. THAILAND

#### 3.1.1. INTRODUCTION

The Kingdom of Thailand (Thailand) is a Southeast Asian country located on the Indochinese Peninsula. It covers an area of approximately 513,000 km$^2$, has a population of over 69 million people and is comprised of 76 provinces.

The capital and largest city is Bangkok, with a population of over eight million. Thailand is bordered by Malaysia to the south, by Myanmar and Laos to the north and by Laos and Cambodia to the east, along with maritime borders with Vietnam in the Gulf of Thailand to the southeast, and Indonesia and India on the Andaman Sea to the southwest (Figure 2.1).

#### 3.1.2. POLITICS

Thailand is a constitutional monarchy and parliamentary democracy, but for many years its government has experienced multiple coups and periods of military dictatorship.

Despite political instability, Thailand is a regional power in Southeast Asia, with a high level of human development. The country is a newly-industrialised economy, with leading sectors of the economy including manufacturing, agriculture and tourism.

Since 2005, Thailand has experienced several rounds of political turmoil, including a military coup in 2006 that ousted then Prime Minister Thaksin Shinawatra. This was followed by large-scale street protests by competing political factions in 2008, 2009, and 2010. In 2011, Thaksin's youngest sister, Yinglak Shinawatra, led the Phea Thai Party to an electoral win and assumed control of the government.

In early May 2014, after months of large-scale anti-government protests, Yinglak was removed from office by the Constitutional Court, and in late May 2014, the Royal Thai Army, led by General Prayut Chan-o-cha, staged a coup against the caretaker government. Prayut was appointed prime minister in August 2014. Prayut's government created several interim institutions to promote reform and draft a new constitution, which was passed in a national referendum in August 2016. In late 2017, Prayut announced elections would be held by November 2018.

The first election since the 2014 coup d'état was held on 24 March 2019 and installed Prayut as prime minister.

The King of Thailand is the head of state, but has little direct power under the constitution. The highly respected King Bhumibol Adulyadej passed away in October 2016, after 70 years on the throne; his only son, Vajiralongkorn, ascended the throne in December 2016. He signed the new constitution in April 2017.

### 3.2. THAI MINERAL INDUSTRY

#### 3.2.1. OVERVIEW

Thailand was formerly a major tin producer (and to a lesser degree Tungsten), but now produces mainly industrial rock, including limestone, gypsum, rock salt, dolomite and basalt. Thailand is one of the world's leading producers of feldspar (~7% of world production), and gypsum (~5%). Tin and tungsten are considered as the main prospective minerals of the country. They principally occur in the Southeast Asia tin-tungsten belt, which is one of the most important tins fields in the world. The tin and tungsten mineralisation is controlled by granite intrusions throughout the belt.

To a lesser degree, Thailand has also produced metals such as copper, gold, iron ore, manganese, silver, and zinc, as well as a variety of industrial minerals, such as barite, clays, and salt.

#### 3.2.2. MINING REGULATIONS

Until 28 August 2017, the principal laws regulating the mining industry were the Minerals Act (1967) and the Mineral Royalty Rates Act (1966). The new Minerals Act, BE 2560 (2017) came into effect on 29 August 2017, but there are many existing mining rights to which the old Mineral Act still applies, unless expressly superseded. All ministerial regulations, notifications, rules, or orders issued under the Minerals Act (1967) and the Mineral Royalty Rates Act (1966), which were effective before the date the new Minerals Act came into force, continued to be effective to the extent that they are not contrary to nor inconsistent with the new Minerals Act.

The mining industry is regulated by the Ministry of Industry (MOI) and the Department of Primary Industries and Mines (DPIM) at the central level, and by the local mineral industry officials at the provincial level. However, a number of government agencies have regulatory powers over various elements of mining projects.

**PROSPECTING LICENCES**

To explore for minerals in Thailand, a prospecting licence must be obtained. There are three kinds of prospecting licences:

- Prospecting Atchayabat (General Prospecting Licence or GPL)
- Exclusive Prospecting Atchayabat (Exclusive Prospecting Licence or EPL)
- Special Atchayabat (Special Prospecting Licence or SPL).

All applications are treated on a first come, first served basis, but EPL and SPL licence holders have first priority for the grant of a Mining Licence.

A GPL is a non-exclusive, non-renewable and non-transferable licence and is valid for one year. A GPL grants rights for mineral prospecting and exploration within a designated area of an administrative district or a province. The local DPIM office has the authority to issue a GPL. Mineral prospecting under this licence can be conducted only by geological, geochemical or geophysical surveys. Prospecting methods such as pitting, trenching and drilling, are not permitted.

An EPL grants sole mineral prospecting and exploration rights within a designated area, and is valid for no more than two years. An EPL is non-transferable and is limited to an area not exceeding 2,500 rai (4 km$^2$) but there are no limits to the number of EPLs that may be applied for.

A holder of an EPL must submit to the local mineral industry official a report on the operations and explorations every 180 days.

An SPL is valid for five years, is exclusive and non-renewable. Upon expiry the licence holder can lodge a new SPL application over the same licence area and the new application goes through the full licensing process. The historical performance of the licence holder will, however, influence the speed of the application renewal process. The maximum exploration area that may be granted under an SPL (onshore) is 10,000 rai (16 km$^2$). There are no limits to the number of SPLs that can be applied for.

The SPL applicant must propose a work plan, with an indication of the amount of money to be expended on exploration in each year throughout the life of the SPL. The licensing fee also includes an allocation to the Government called a Special Benefit, which is stipulated in the Thai Mining Act. Proceeds from the payment of Special Benefits are used by the Government for minerals-related surveys, studies and research, as well as for restoration of the environment. Special Benefits shall continue to be binding upon the holder of the SPL should the holder obtain an ML, although this only applies to the area covered by the ML.

The holder of an SPL is required to meet the stated expenditure and work plan for each year, and changes to the work plan based on exploration results will be accepted. The SPL holder may relinquish part of the SPL area and any commitments for the relinquished area will also cease.

At the end of each year, any expenditure shortfall in respect of the exploration budget in that year must be met by a cash payment to the DPIM for an amount equivalent to shortfall. Expenditure exceeding the commitment prescribed for such year of commitment can be deducted from exploration commitments in the following year.

### MINING LEASES

Under Thai law, no person can mine in any area unless they receive a Provisional Prathanabat or Prathanabat (mining lease or ML) which grants rights for mining within a designated area. The holder of an EPL or SPL has the first priority to apply for an ML within the bounds of their EPL or SPL. There is no limit on the number of MLs that may be applied for by one entity. An ML is valid for a period not exceeding 30 years, inclusive of any renewals, and is transferable in accordance with set rules, procedures and conditions.

An applicant for an ML must also provide reliable evidence of the discovery or existence of the mineral to be mined, plans for the rehabilitation, proposals for special benefits to the state and other documents or evidences as prescribed in the ministerial regulation. An environmental impact assessment report is required to be prepared under the law on promotion and preservation of the national environmental quality.

The Minerals Act requires applicants to submit plans for restoration, development, utilisation and monitoring impacts from mining activities on the environment and health of people in and around the mining area, and also requires applicants to bear any cost of organising referendums for local communities pertaining to the grant or maintenance of an ML.

There are three classes of ML:

- Class 1: for mining in an area not exceeding 100 rai (0.16 km$^2$)
- Class 2: for mining in an area not exceeding 625 rai (1.0 km$^2$)
- Class 3: for mining which is not Class 1, Class 2, including offshore, or underground mining.

### ROYALTIES

Before the minerals may be transported out of the permitted area, the possessor must apply for a royalty payment. The Schedule of Mineral Royalty Rates, in percent of the price, is posted by the DPIM, as prescribed by the Ministerial Regulation.

The formula for calculating royalties varies between commodities. Tungsten oxide royalties are calculated using progressive rates based on market price and range between 0 and 20% (Table 3.1). As at 16 June 2020, the DPIM had announced a tungsten oxide mineral price of 361,900 Baht, implying an effective royalty rate of 5.34%.

**Table 3.1 Progressive tungsten oxide mineral royalty**

| Tungsten Oxides Mineral Baht/tonne | | Royalty rate | Royalty calculation (Baht/tonne) | Royalty payable (Baht/tonne) |
|---|---|---|---|---|
| From | To | | | |
| 0 | 50,000 | 0% | 0 | 0 |
| 50,001 | 125,000 | 2.5% | 1,875 | 1,875 |
| 125,001 | 250,000 | 5% | 6,250 | 6,250 |
| 250,001 | 500,000 | 10% | 25,000 | 11,190 |
| 500,001 | 750,000 | 15% | 37,500 | - |
| 750,001 | + | 20% | | - |
| Royalty payable (based on 361,900 Baht price) | | | | **19,315** |
| | | | | **5.34%** |

Currently, a royalty for lithium has not been determined, as there are no Mineral Resources or mining of lithium in Thailand. It is expected that a lithium royalty could be calculated similarly to that of tungsten, but the DPIM has not provided any indication as to what a lithium royalty may comprise.

**OWNERSHIP**

Thai Government policy is not to grant mineral exploitation rights to foreign nationals or companies in which ownership by foreign nationals exceeds 49%. Mineral rights can, however, be granted to a foreign company under a special agreement.

Majority foreign-owned companies wishing to operate a mining business must obtain a licence granted by the Minister of Commerce with the approval of the Council of Ministers of Thailand (the Cabinet) as required under the Foreign Business Operation Act. The majority foreign-owned company can operate a mining business but only if at least 40%, or with approval of the Cabinet, 25%, of the capital is held by Thai nationals or Thai entities. Furthermore, at least two-fifths of the directors are to be Thai nationals.

Under the ASEAN Comprehensive Investment Agreement, a juridical or natural person of an ASEAN Member State has the same ownership rights as a Thai juridical or natural person. The ASEAN Member States are Singapore, Thailand, Malaysia, Indonesia, Philippines, Vietnam, Cambodia, Laos, Brunei and Myanmar. Pan Asia Metals is a Singapore registered company.

## 3.3. GEOLOGY OF THAILAND

Thailand is divided into two tectonic terranes, namely the Indochina Terrane to the east and Shan-Thai Terrane to the west. A suture zone, running in a north-south direction, divides the two terranes (Figure 3.1). The Shan-Thai terrane includes eastern part of Myanmar and northern, western and southern parts of Thailand, western peninsular Malaysia and the northern part of Sumatra. The Indochina terrane includes northeastern and eastern parts of Thailand, the Lao People's Democratic Republic, Cambodia; and Vietnam.

The Shan-Thai terrane, within Thai territory, is mostly underlain by Precambrian, Palaeozoic, Mesozoic and Cenozoic rocks. The Shan-Thai and Indochina terranes rifted from what is now the Australian part of Gondwanaland.

The collision between the Indian plate and Eurasia plate during the Tertiary Period gave rise to the Sukhothai and Loei-Phetchabun fold belt. These belts run parallel to the suture between the Indochina and Shan-Thai terranes. The collision caused folding of the rocks found in these belts, as well as a number of major faults in Thailand, especially strike-slip faults such as the Mae Ping and Three Pagoda fault in a northwest-southeast direction and the Uttaradit-Nan, Ranong and Klong Marui faults.

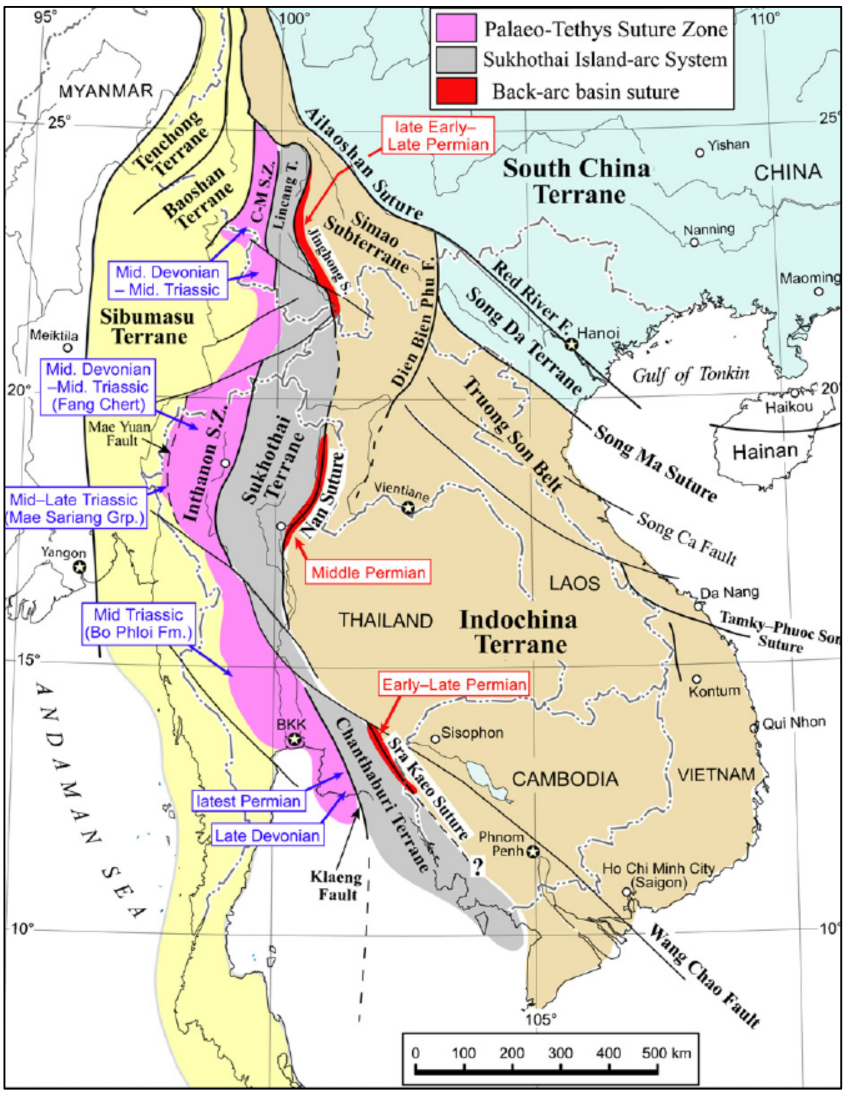
Most of the Precambrian rocks in Thailand are high-grade metamorphic rocks, caused by regional stresses. They comprise orthogneiss (anatexite or migmatite), paragneiss, schist, calcsilicate, and marble. These rocks are found within the Shan-Thai Terrane along the western border of Thailand, in Mae Hong Son, Chiang Mai, Tak, Prachuap Khiri Khan and Nakhon Si Thammarat Provinces.

The Lower Palaeozoic (from Cambrian to the Devonian) comprises sedimentary sandstone, shale, carbonate rocks and low grade metamorphic rocks. Their outcrop extends from the north and northwestern portions of Thailand to the southwestern and southern part of Thailand. The major units include the Tarutao Group (Cambrian -Ordovician), Thung Song Group of limestone and carbonate rocks of the Ordovician and the Tanao Si Group (Silurian to Carboniferous).

The Upper Palaeozoic rocks (Carboniferous to Permian period) are distributed in all regions of Thailand. Most of the Carboniferous rocks are sandstone, shale and pebbly mudstone with minor chert and limestone. Most of the Permian rocks are limestone, with minor shale, sandstone and chert. Two major belts of Permian rocks have been identified; the Ratburi Group, extending from the western down to southern part of the country, and the Saraburi Group, extending through the Saraburi, Lopburi and Nakhon Sawan provinces. This eastern belt runs along the western rim of the Khorat plateau. Volcanic and ultramafic rocks are also found in this eastern belt. Rocks in these two belts are major sources of the raw materials for the cement and construction industries.

The Mesozoic comprises the Triassic, Jurassic and Cretaceous periods. The Triassic comprises shale, limestone and sandstone which are found in the northern and western parts of the country and constitute the Lampang Group. Triassic sedimentary rocks are also found in eastern and southern parts of Thailand. The sedimentary rocks of the Jurassic and Cretaceous periods include sandstone, siltstone, shale and conglomerate. They are widespread on and form the Khorat plateau, and therefore are named the Khorat Group. These rocks are also found in small basins in the north and the lower part of the south of Thailand and into Malaysia. Other marine Jurassic sedimentary rocks consist of shale, sandstone, conglomerate and limestone, and belong to the Huai Pong, Hua Fai, Umphang and Lower Thung Yai Groups across the western part of Northern Thailand.

**Figure 3.1 Distribution of continental terranes in Thailand and adjacent areas (after Sone and Metcalfe, 2007)**




The Cenozoic rocks of Thailand were deposited in continental and marine environments. Half graben basins were formed in an approximately north-south orientation, as a result of the Indian plate colliding with the Eurasian plate about 40 to 50 Ma. Rocks in the Tertiary basins are sandstone, shale and mudstone. More than 60 Tertiary basins have been identified, both on land and in the sea, and are economically important as they represent sources of inland coal and of oil and natural gas, both onshore and offshore. Approximately one-third of the country is covered by Quaternary unconsolidated sediments, consisting of gravel, sand, silt, clay and extensive laterites.

In addition to the above, there are many types of igneous rocks of different ages within the country. The rocks formed during the Palaeozoic and Cenozoic Eras are divided into three belts: eastern, central and west. Most of these comprise granite and volcanic rocks. Mafic and ultramafic rocks occur in narrow belts along suture zones in the Nan, Uttaradit, Nakhon Ratchasima, Sa Kaeo, Prachin Buri and Narathiwat provinces.

#### 3.3.1. SOUTHEAST ASIA TIN-TUNGSTEN BELT

The Southeast Asian tin-tungsten belt occupies a broadly arcuate zone extending 3,500 km southwards from northwestern Thailand and eastern Myanmar, through peninsular Malaysia to the Indonesian islands of Singkep, Bangka and Belitung (Figure 2.1). This belt represents a distinct metallogenic province that yielded approximately 75% of the world's tin supply during the twentieth century. Tungsten mineralisation is more significant in the northern portions of the belt. Tin is dominant to the south of the Thai-Malaysian border.

The belt is largely comprised of Palaeozoic and Lower Mesozoic shelf sediments comprising quartzose sandstones and argillites with significant carbonate units and, particularly in Malaysia, intercalated volcanic rocks. Minor deeper-water sediments are found in the area mainly to the north and west. The belt is cut by three zones of tin-bearing granitic intrusions, younging from the east to the west, each corresponding to a tin belt. A string of Permo-Triassic high level granites are found in eastern Malaysia, while Late Triassic deep-seated granitic rocks occur in the Indonesian ‘tin islands’, in west coast Malaysia and in western Thailand. Cretaceous granites are mapped in southern Thailand and along the Myanmar-Thai border.

Most of the tin production has been derived from alluvial and eluvial deposits. These deposits appear to have been sourced and transported from small discrete cassiterite bearing quartz vein swarms and disseminations within the margins of the granite batholiths of the region. Primary deposits, such as the cross-cutting cassiterite-bearing quartz veins of Sungei Lembing and the stratabound sulphide and/or magnetite deposits of Laboo in southern Thailand, Manson Lode, Bukit Besi, Machang Setahun and Pelepah Kanan of east coast Malaysia and Kelapa Kampit on Belitung Island have not contributed substantially to the region's tin production but pegmatites are a significant source of Sn in western parts of the belt.

Tungsten mineralisation is largely present as primary deposits, comprising a small number of substantial deposits and a larger number of small vein type occurrences. Khao Soon, which is one of the largest deposits, is in southern peninsula Thailand and is a ferberite occurrence hosted by breccia, quartz veins and the enclosing sediments within a shale-quartzite sequence. The other significant tungsten mine in Thailand is Doi Mok, which is described as a skarn-type scheelite deposit in limestone. The Mawchi deposit in Burma, which comprises a cassiterite-wolframite-scheelite bearing quartz lode system largely within a granitic host, was the other major tin-tungsten producer of the region.

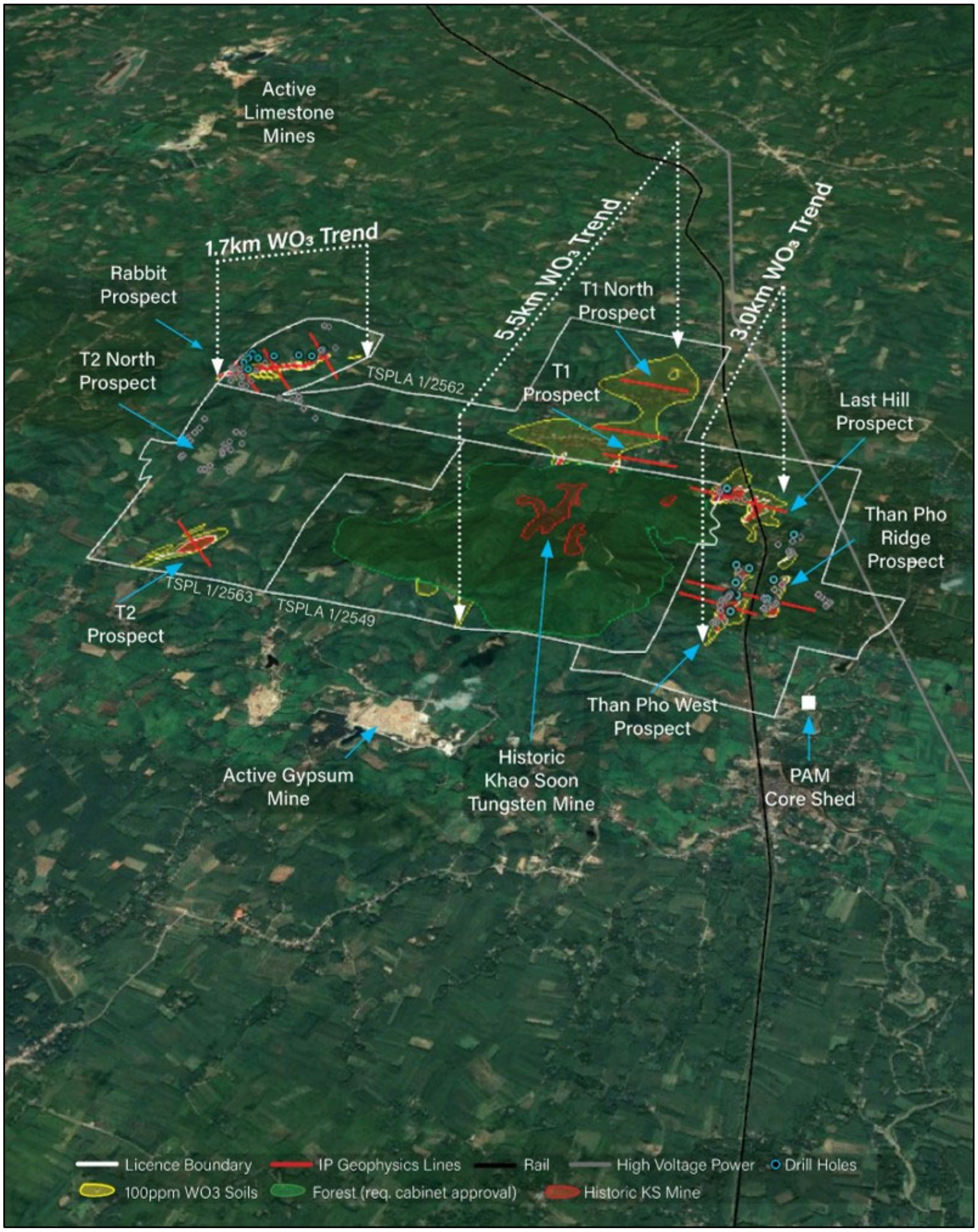
## 4. KHAO SOON TUNGSTEN PROJECT

### 4.1. INTRODUCTION

The Khao Soon tungsten project is located approximately 600 km south of Bangkok in Nakhon Si Thammarat Province, Southern Thailand (Figure 2.1). Pan Asia holds one granted special prospecting license and two special prospecting license applications, which cover a total area of approximately

34 km² (Table 2.1 and Figure 4.1). Within one of the SPL applications (TSPLA1/2549) is the historical Khao Soon underground tungsten mine which operated up to about 1980.

**Figure 4.1 Khao Soon tungsten project (source Pan Asia)**




Optiro notes that much of the land within the SPL application (TSPLA 1/2549) which contains the Khao Soon mine is classified as Conserve Forest and Watershed Class 1. The grant of this application is therefore subject to the approval of the Thailand Cabinet. Optiro notes that there is no certainty of grant for TSPLA 1/2549 but Pan Asia remains in active discussions with the DPIM and MOI on this application. Pan Asia's recent exploration focus has been within its granted licences and hence the areas surrounding the historical Khao Soon mine.

## 4.2. HISTORY

The Khao Soon deposit was discovered by Siam American Mining Enterprise Co. Ltd in October 1970. After discovery, large scale illegal mining commenced, with an estimated 30,000 people working the area. There was local unrest associated with the Illegal mining at Khao Soon, and in 1976 the Thai Army was called in to control the situation.

The Khao Soon deposit was a significant underground tungsten mine which operated for approximately 10 years up to 1979/80 (see cover image). Due to the illegal and uncoordinated approach to mining, little information quantifying mine production exists. The US Bureau of Mines Mineral Yearbooks (1971 to 1980) provide annual recorded tungsten production for Thailand and include several cursory references to Khao Soon during the 1970s. These include the statement that, in some years Khao Soon was responsible for half or more of all tungsten production and up to 75% of wolframite production in Thailand during its last few years of production. Furthermore, the US Bureau of Mines notes that the Khao Soon area was plagued by poachers, even buying back its own ore from the illegal miners.

During the period 1971 to 1980, total recorded tungsten concentrate production (at ~65% $WO_3$) in Thailand was just under 44,000 metric tonnes (t) (Kinney et al, 1971 to 1980) but actual production may have been significantly greater due to unrecorded illegal mining. Based on these figures, Optiro considers it is reasonable that tungsten concentrate production from Khao Soon may be in the vicinity of 10,000 t to 20,000 t for the period 1971 to 1980. Local sources also indicate that small scale mining continued into the early 1980s.

Optiro notes that the tungsten price (US$/short ton unit) was well over US$100/t in the late 1970s and early 1980s, falling to mid-US$40/t by 1986. This sustained decrease in tungsten prices is likely responsible for the cessation of mining at Khao Soon. The US Bureau of Mines also notes that the decline in Thai wolframite production around 1980 was attributable to the gradual depletion of the high-grade sections of the Khao Soon Mine. It is considered that much of the near surface, easily accessible and higher grade ore would have been mined out by this time.

It is difficult to estimate the average tungsten grade mined from the Khao Soon mine as production records are poor. An evaluation project by the United States Geological Survey (USGS) in 1974 (Shawe, 1984) as part of an aid programme (the Thailand mineral resources evaluation project) provides some brief descriptions and states that *'only the highest grade ore (5-12 percent W) was being mined, both in the principal mine and in numerous small squatter's mines, and a large amount of lower grade material has been left in the ground. The primitive concentrating methods being used at the mine also have left a large volume of low grade material in the waste dumps'*.

Throughout the old mine area within TSPLA 1/2549 there are extensive old workings, over an area of approximately 1 km x 1 km. These include at least 200 shafts, many greater than 30 m deep, as well as at least 30 adits. Many of the adits appear to be in good condition, but some open/collapsed stopes are also visible. Through modelling the topography, old shafts and adits, Pan Asia has estimated that previous mining extended to a maximum depth of around 100 m below surface. This compares with Shawe's estimate in 1974 that the main Khao Soon area had been mined to at least 70 m.

Pan Asia has not yet assessed the potential of the material in the low grade waste dumps identified by Shawe, as this material is within licence TSPLA1/2549 which remains in application. This material may, however, present a material and easily exploitable target, and is worthy of detailed review should the licence be granted.

Modern exploration at Khao Soon was initiated by Australian company Thai Goldfields NL (TGF) from 2006 to 2014. TGF conducted surveying of old workings, extensive soil and rock chip sampling and mapping across much of the project area. This work identified numerous areas with significant tungsten enrichment in soils, which in many cases is supported by rock chip sampling and prospective geology. The presence of old workings is also relatively common.

TGF also conducted shallow air core drilling (64 vertical holes for 1,540 m) at two selected targets. This work identified relatively large areas of near-surface, generally low-grade tungsten mineralisation, developed within a thick laterite profile. Better $WO_3$ intersections from Target 2 (Figure 4.1) included: 12 m at 0.21% $WO_3$ from 9 m, 15 m at 0.15% $WO_3$ from 15 m, 11 m at 0.32% $WO_3$ from 9 m and 12 m at 0.15% $WO_3$ from 12 m.

Locally, tungsten mineralisation extended into bedrock beneath the laterite. However, most holes stopped very soon after bedrock was intersected.

## 4.3. GEOLOGY AND MINERALISATION

The Khao Soon project occurs within the Central Belt of the Southeast Asian Tin Tungsten Belt. The Central Belt is responsible for significant historical tin and tungsten production.

The project area is dominated by a sedimentary sequence of siltstone, with minor sandstone and calcareous inter-beds of the Silurian-Carboniferous aged Tanaosi Group. The large Triassic-Jurassic aged Khao Luang granite batholith intrudes the sedimentary sequences immediately north and west of the Khao Soon project.

Within the historical Khao Soon mine, the primary tungsten mineralisation is hosted within brecciated-fractured silicified sedimentary rocks. Tungsten occurs as ferberite ($FeWO_3$), an iron-rich end member of the wolframite group. Ferberite commonly forms the matrix of the mineralised breccia, in association with unmineralised clasts of silicified metasediment. The breccia appears to be hydrothermal in nature and forms a series of semi-continuous/interconnected pipes, pods, lodes and fracture fill zones. Pyrite occurs in association with the mineralisation and can be locally abundant (Shawe, 1984).

The historical Khao Soon mine workings are scattered over an area about 1 km by 1 km wide. Within this area there are three main areas of old workings (Figure 4.2): the Western Zone, the Central or Main Zone and the Eastern Zone. There are also other zones of mineralisation associated with old workings identified throughout the project area. In the western parts of the project area several prospects returned significant antimony values in rock chip samples, with or without associated tungsten.

It is interpreted that the tungsten mineralisation at Khao Soon is related to and sourced from a younger non-outcropping granite. Regional magnetic data suggests that the granite occurs beneath much of the Khao Soon project area and intrudes the sediments and the Khao Luang batholith. The exact depth to the top of the granite is unknown, but may be in the order of 1 km. Tungsten mineralisation may occur all the way from the sub-surface granite to the surface.

## 4.4. EXPLORATION

Pan Asia commenced its exploration at the Khao Soon project in late 2014 and has conducted additional confirmatory and extensional soil and rock chip sampling, mapping programs, induced polarisation (IP) geophysics and reconnaissance diamond drilling at several targets. The combined results of the exploration work have confirmed the significant tungsten mineralisation at the Khao Soon project.

Exploration highlights achieved by Pan Asia include:

- numerous tungsten in soil anomalies greater than 0.1% $WO_3$ over an areas of 4 km by 20 to 150 m wide

- numerous elevated to high-grade $WO_3$ values in rock sampling at many prospects
- soils and rock chips indicate total prospective strike length over 10 km (Figure 4.1)
- tungsten in soil anomalies, supported by rock chips and breccia occurrences
- reconnaissance drilling has identified mineralisation in many holes extending from surface anomalies
- IP geophysics has identified several deep targets that require drilling.

Furthermore, Pan Asia has completed 22 diamond drill holes for 1,912 m at the Than Pho Ridge, Than Pho West, Rabbit and Last Hill prospects (Figure 4.2 and Appendix A). The drilling has been successful in discovering near surface intersections containing good tungsten grades over considerable widths. Of the holes completed, the most significant intercepts include:

- KSDD001 – 52.7 m at 0.50% $WO_3$ from 0 m, incl. 12.8 m at 1.07% $WO_3$ from 14.8 m
- KSDD003 – 24.3m at 0.24% $WO_3$ from 25.1 m
- KSDD004 – 41.0 m at 0.26% $WO_3$ from 6.8 m
- KSDD006 – 27.6 m at 0.15% $WO_3$ from 14.4 m
- KSDD012 – 11.6 m at 0.18% $WO_3$ from 6.0 m
- KSDD013 – 8.0 m at 0.19% $WO_3$ from 0 m
- KSDD016 – 7.6 m at 0.30% $WO_3$ from 0 m
- KSDD021 – 14.55 m at 0.47% $WO_3$ from 0 m, incl. 7.3 m at 0.62% $WO_3$ from 0 m
- KSDD022 – 32.2 m at 0.31% $WO_3$ from 0 m, incl. 7.5 m at 0.56% $WO_3$ from 17.8 m.

Optiro notes that the drilling is exploratory in nature, but also that the results are significant and warrant further exploration of the Khao Soon Project.

### 4.4.1. EXPLORATION TARGET

Pan Asia's drilling results, supported by surface sampling and mapping, have provided the Company with sufficient information to estimate an Exploration Target, in accordance with the guidelines of the JORC Code, 2012. The Exploration Target estimate covers four key prospects (Than Pho West, Than Pho Ridge, Target 2, Rabbit – see Figure 4.2). JORC Table 1 information is included in Appendix C.

The tonnage and grade potential of the Exploration Target is in the range of 15 to 29 Mt at grades of between 0.2% and 0.4% $WO_3$ (Table 4.1). The potential quantity and grade of the Exploration Target is conceptual in nature. Optiro notes that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

**Figure 4.2 Khao Soon tungsten project exploration (source Pan Asia)**

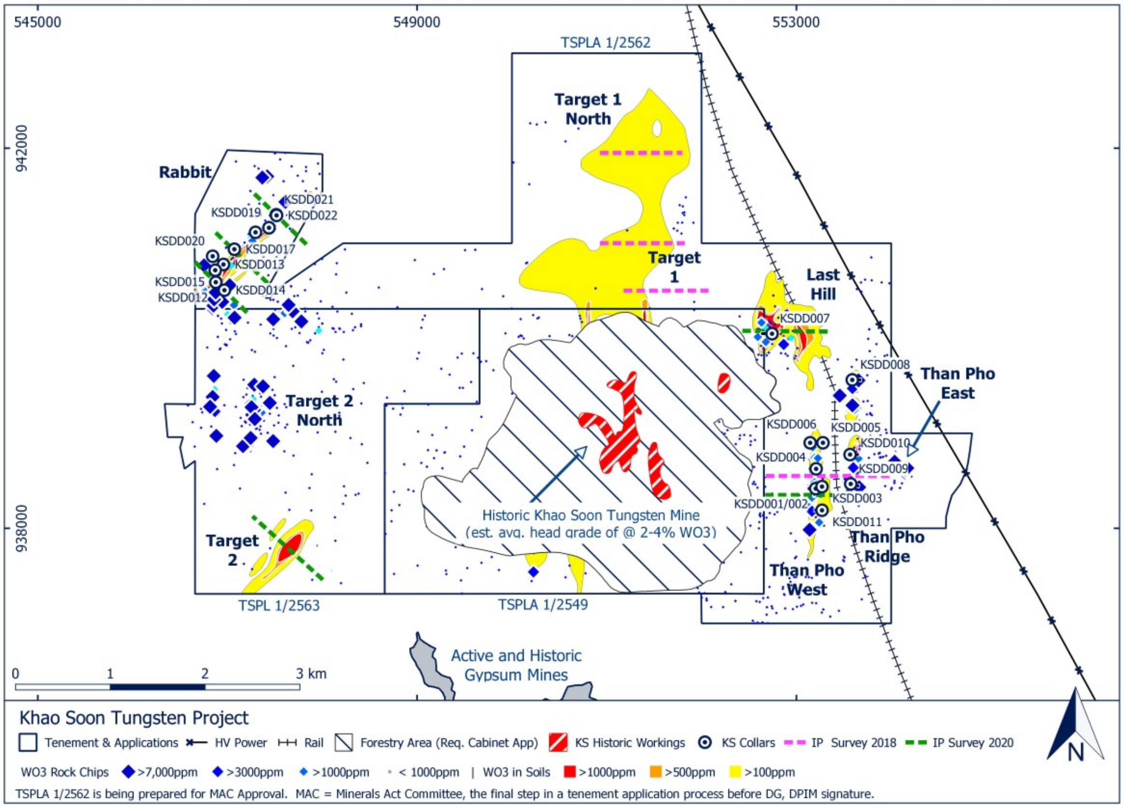



**Table 4.1 Khao Soon Exploration Target**

| Prospect | Tonnes (Mt) | Grade ($WO_3$ %) |
|---|---|---|
| Than Pho West | 4 to 8 | 0.2 to 0.4 |
| Than Pho Ridge | 1 to 2 | 0.2 to 0.4 |
| Target 2 | 6 to 12 | 0.1 to 0.3 |
| Rabbit | 4 to 7 | 0.2 to 0.4 |
| **Total** | **15 to 29** | **0.2 to 0.4** |

The Exploration Target is based on the current geological interpretation of the mineralisation geometry, geochemistry and geology. This is guided by detailed surface soil and rock-chip sampling, geological mapping, diamond and aircore drilling and induced polarisation geophysics.

Included in the data on which this Exploration Target has been prepared are the results from 20 diamond drill holes, completed by Pan Asia in 2017 to 2018 and 9 aircore drillholes completed by TGF in 2013.

The Exploration Target does not account for potential geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of the mineralisation intersected in drilling and supported by the extensive tungsten anomalism in surface sampling.

The Exploration Target is defined by using polygonal or cross sectional areas based on reasonable extrapolation of drilling results supported by surface geochemistry and geology. For drill holes, the average grades of the intersections have been rounded to the nearest decimal place using a nominal

0.05% $WO_3$ cut off for the lower bound grade and a > 0.1% $WO_3$ cut off for the upper bound. No $WO_3$ top cut was applied. The polygons created were extended half-way along strike towards the next drilled section. The polygons are then extended to a maximum of 150 m down-dip from the nearest drillhole data or from surface geochemical data (in the case of Target 2). The polygon end points along strike were terminated in line with surface geochemistry boundaries. Volumes of the polygonal blocks were then calculated (area x strike length) as well as weighted average $WO_3$ grades, with appropriate rounding. Tonnages were estimated using a density of 2.4 t/m3 and rounded to the nearest 1 million tonnes.

At Target 2, the TGF drilling defined a horizontal layer of lateritic hosted $WO_3$, that locally extended into bedrock. A similar polygonal method to that described the above was used to estimate the Exploration Target for this lateritic mineralisation but with a lower density of 2.1 t/$m^3$ applied.

A secondary method was also used as a cross check on volumes/tonnages. This method was also used to estimate the primary Exploration Target at Target 2, which was then added to the laterite hosted Exploration Target defined by TGF aircore drilling. There has been no drilling by Pan Asia at Target 2.

The secondary method estimate was achieved by estimating the area of the >0.05% $WO_3$ soil contour and the 0.1% $WO_3$ soil contour at the four prospects. To account for topographic and soil dispersion affects the total area of the two cut-offs was reduced by 65%. The remaining area was then extrapolated to 150 m down dip. Volume and then tonnages are estimated using a density of 2.4 t/$m^3$. Using this method, the tonnages for the upper and lower ranges of the Exploration Target compare favourably to those estimated using the polygonal method based upon drilling.

Pan Asia has budgeted for and intends to test the Exploration Target with further drilling which is expected to extend over the next 12 months. Depending upon initial results, this may lead to further resource definition drilling. A metallurgical testwork program is also planned to evaluate potential metallurgical performance of the various types of mineralisation known to be present.

Optiro has reviewed the Exploration Target and considers it has been appropriately estimated and is representative of the exploration potential at Khao Soon. The Exploration Target is based on and fairly represents, information and supporting documentation prepared by the Competent Person, Mr David Hobby.

The information in this report that relates to the Khao Soon Exploration Target is based on information compiled by Mr David Hobby. Mr Hobby is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hobby is a Director and shareholder of Pan Asia. Mr Hobby has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Hobby consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

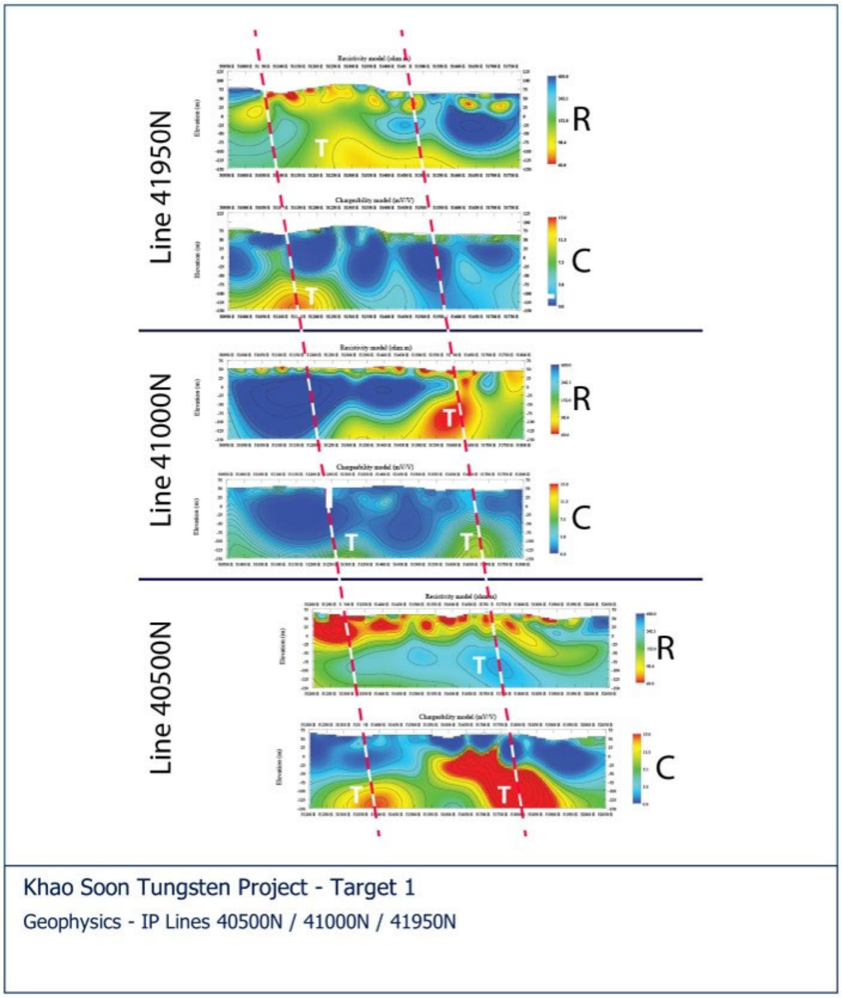
#### 4.4.2. TARGET 1 (T1)

The T1 prospect is located 1 to 3 km north and along strike of the old Khao Soon Mine (Figure 4.1). The area is essentially flat and sits about 400 m below the top of the Khao Soon Ridge.

At T1, previous soil geochemistry sampling by TGF and also by Pan Asia delineated anomalous tungsten over an area about 2 km long and up to 1.3 km wide. The area of greater than 100 ppm $WO_3$ in soil geochemistry covers about 1.5 $km^2$. Previous drilling by TGF at the northern end of the prospect intersected tungsten mineralisation hosted within a thick laterite zone. In some holes, the anomalous tungsten extended into bedrock at the end of the hole, but most holes terminated at the bedrock contact.

Pan Asia considers that the extensive tungsten enriched laterite at T1 is a large geochemical anomaly indicating potential for primary mineralisation located beneath the laterite profile. This is considered reasonable but this target has not yet been drill tested. Pan Asia, however, completed three lines of reconnaissance IP geophysics at T1 (Figure 4.1 and Figure 4.3). This generated drill targets at depth, on the eastern side of the soil anomaly. The southern line (40500N) is considered the most prospective and warrants drill testing of the geophysical anomaly. The geophysics suggests an easterly dip to any mineralisation.

**Figure 4.3 T1 IP cross section (resistivity: top and chargeability: bottom) (source Pan Asia)**



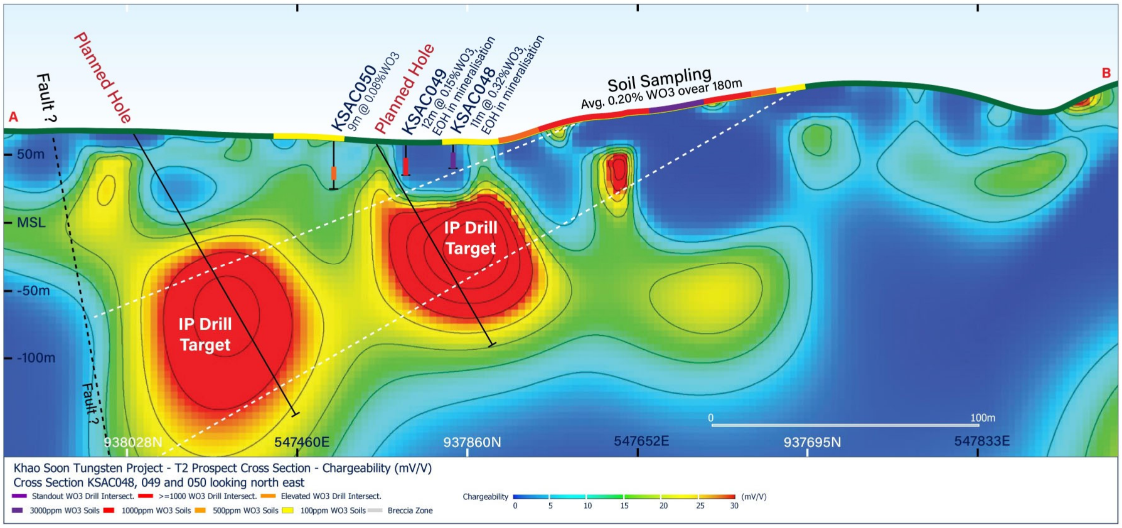

### 4.4.3. TARGET 2 (T2) AND TARGET 2 NORTH (T2N)

The T2 prospect is defined by a strong northeast-trending $WO_3$ soil geochemistry anomaly about 700 m long and up to 200 m wide. This area is covered by lateritic regolith, with little to no outcrop.

Previous drilling by TGF (KSAC prefixed holes) conducted on the western side of the soil anomaly intersected tungsten mineralisation in laterite which locally extended into bedrock, with some holes ending in low-grade mineralisation (Figure 4.4). Better intersections included 12 m at 0.15% $WO_3$ from 12 m and 11 m at 0.32% $WO_3$ from 9 m (Figure 4.4).

Pan Asia completed a single line of IP geophysics across the centre of the soil anomaly. Results from the IP show strongly chargeable features in a shallow northwest-dipping zone. The IP indicates that previous drilling by TGF may have ended in low grade mineralisation immediately above the higher grade bedrock target (Figure 4.4) Pan Asia plans to drill test the IP targets post-IPO.

**Figure 4.4 Target 2 (T2) IP cross section (source Pan Asia)**




Pan Asia has estimated an Exploration Target at T2 based on the TGF drilling, surface geochemistry and IP in the range of 4 to 8 Mt at 0.1 to 0.3% $WO_3$.

In addition to the T2 prospect, the T2 North prospect is located about 1.5 km north of T2. T2 is associated with old workings and high levels of $WO_3$ in rock chips, with many assays of greater than 0.5% $WO_3$ contained in silicified and brecciated sediments (Figure 4.2). No drill testing of the T2 North prospect has occurred to date. Locally elevated to high grades of antimony are also common in the area, both with and without associated tungsten. The prospectivity for antimony mineralisation has not been assessed, but may present an exploration target in the future.

### 4.4.4. THAN PHO RIDGE

The Than Pho Ridge prospect is located approximately 2.4 km east of the Khao Soon mine (Figure 4.1). The prospect area is defined by a 1.3 km long soil geochemistry and rock chip anomaly, in association with old workings and the occurrence of weathered tungsten rich breccia. Pan Asia has conducted broad-spaced diamond drilling on three sections along strike. The drilling intersected relatively narrow and moderately west-dipping zones of weathered tungsten-rich breccia.

Pan Asia has estimated an Exploration Target of 1 to 2 Mt at 0.2 to 0.4% $WO_3$ at the Than Pho Ridge prospect.

To the east of Than Pho Ridge (~500 m) is the Than Pho East prospect. It is centred on small group of old workings where rock-chip sampling has returned numerous dump and float samples with anomalous $WO_3$. The Than Pho East prospect is at an early stage of assessment, but additional work, including drilling, is planned by Pan Asia.

### 4.4.5. THAN PHO WEST

The Than Pho West prospect is located about 500 m west of Than Pho Ridge and 2 km east of the historical Khao Soon mine. The prospect is defined by a 1 km long zone of strong $WO_3$ anomalism in soil geochemistry and rock-chip samples associated with iron rich weathered lateritic breccia. Reconnaissance diamond drilling by Pan Asia was highly encouraging, and intersected significant tungsten grades and widths (Figure 4.5).

Pan Asia has estimated an Exploration Target of 4 to 8 Mt at 0.2 to 0.4% $WO_3$ for Than Pho West project.

Pan Asia interprets that the Than Pho West and Than Pho Ridge mineralised zones dip towards each other and that the two structures have the potential to intersect around 200 m below surface. IP geophysics has defined further anomalies in this target area that require drill testing (Figure 4.6).

**Figure 4.5 Than Pho West prospect (source Pan Asia)**

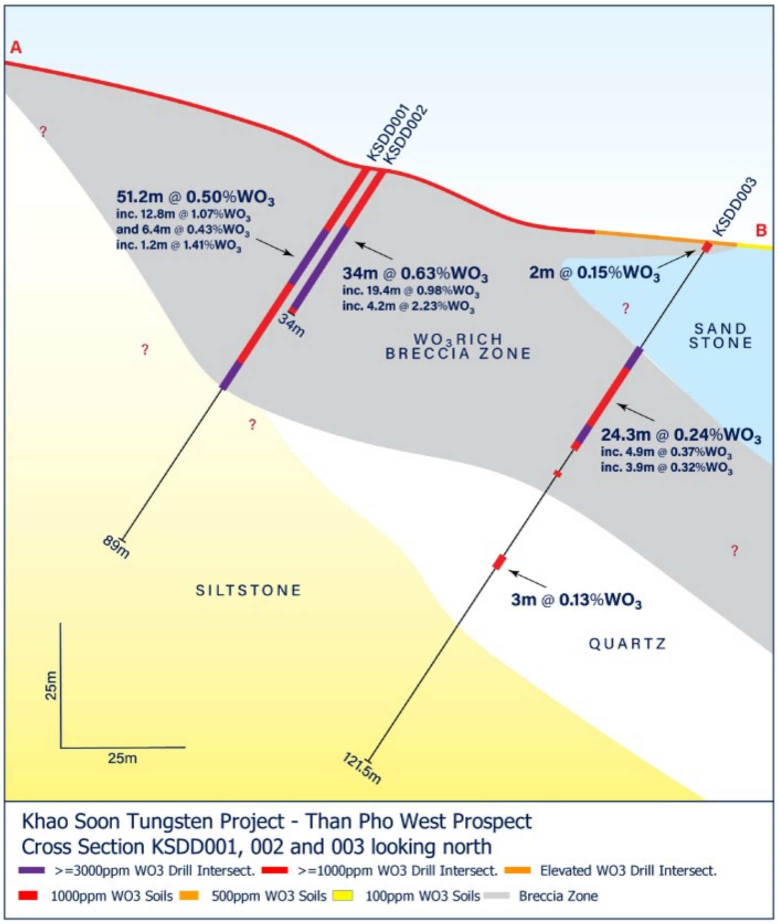
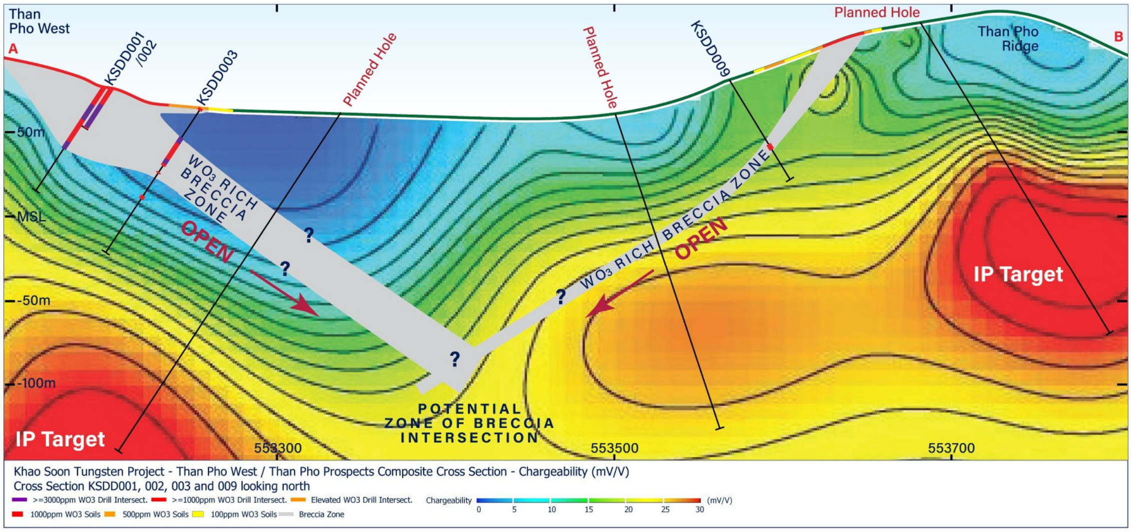


**Figure 4.6 Than Pho West prospect IP cross section with interpreted breccia zone (source Pan Asia)**




### 4.4.6. LAST HILL

The Last Hill prospect is located about 1.5 km to the north along strike from Than Pho West (Figure 4.1). The prospect area is defined by a large zone of anomalous tungsten in soil geochemistry covering an area of about 500 m by 500 m. The prospect has distinct higher-grade areas on the western and eastern margins (Figure 4.7).

Rock chip sampling in the western and central portions has returned elevated tungsten values but outcrop is poor. Pan Asia has completed a single drillhole to test beneath the western zone. This hole failed to intersect bedrock tungsten mineralisation. The large and high-grade soil anomaly remains unexplained, inadequately tested and understood.

In addition to the soil geochemistry and single drillhole, Pan Asia has completed a single line of IP across the prospect. This identified a large zone of elevated chargeability beneath the western anomaly, as well as other interesting features to the east (Figure 4.8). Of note, the drillhole stopped short of the main IP anomaly. Further drilling and geophysics are planned at Last Hill.

**Figure 4.7 Last Hill prospect soil geochemistry anomalism (source Pan Asia)**

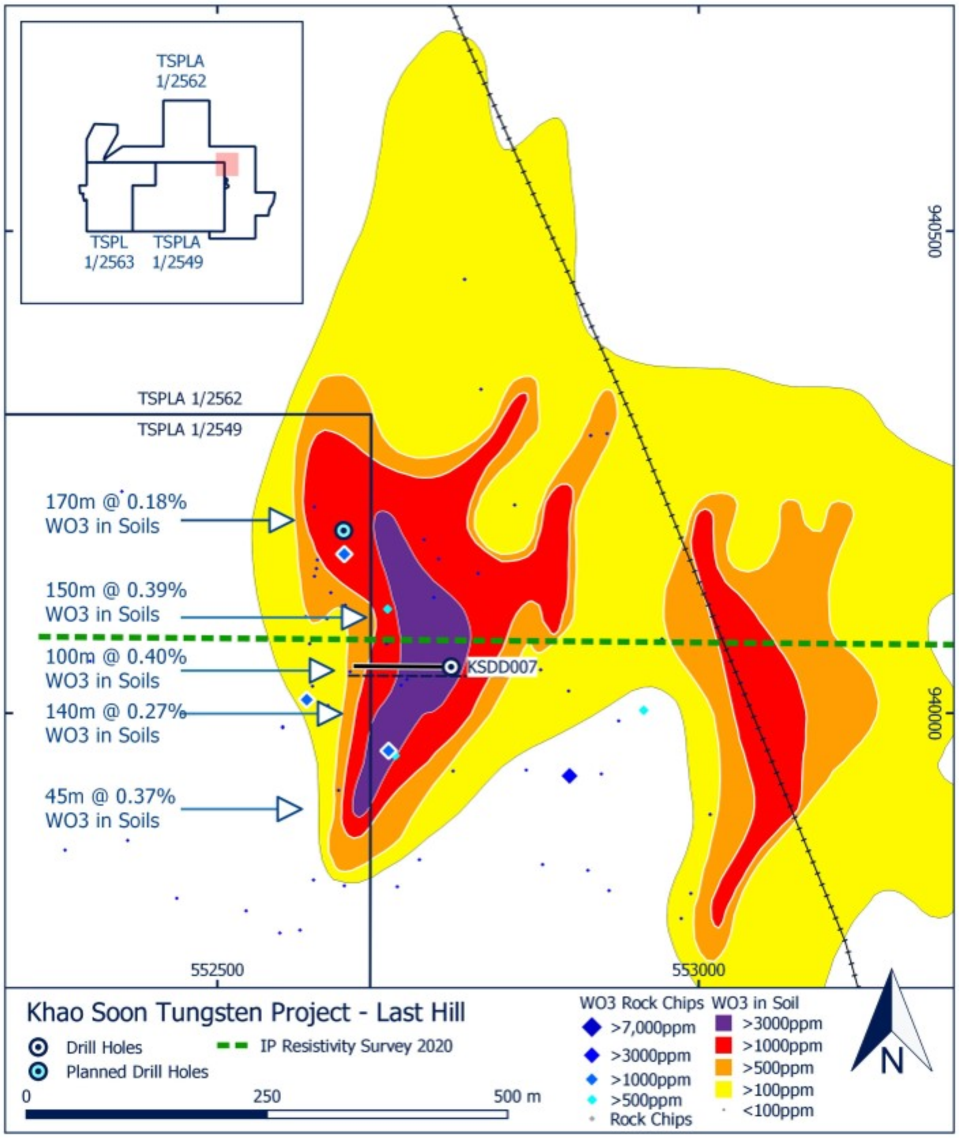
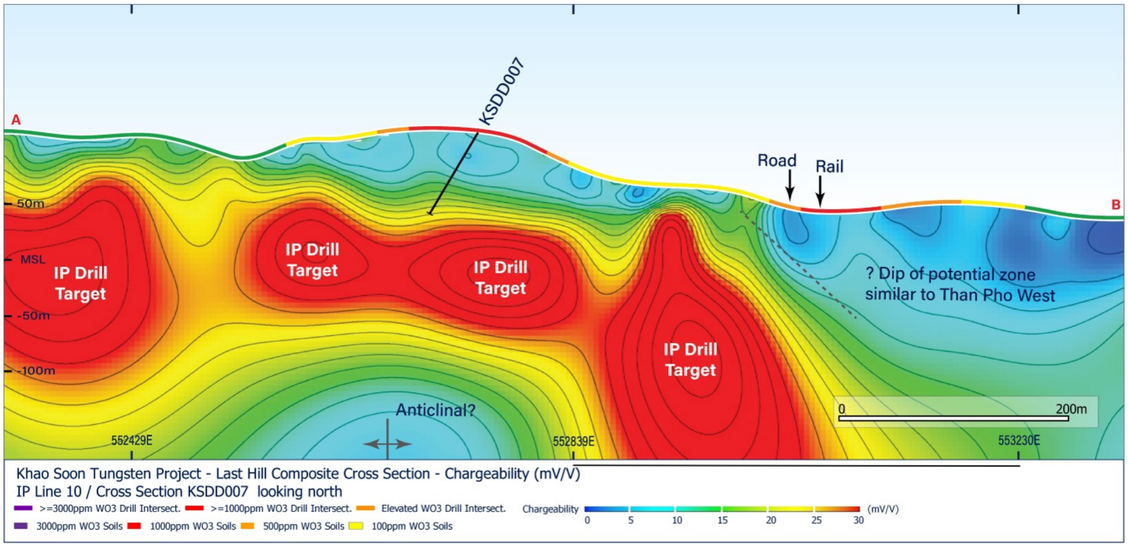


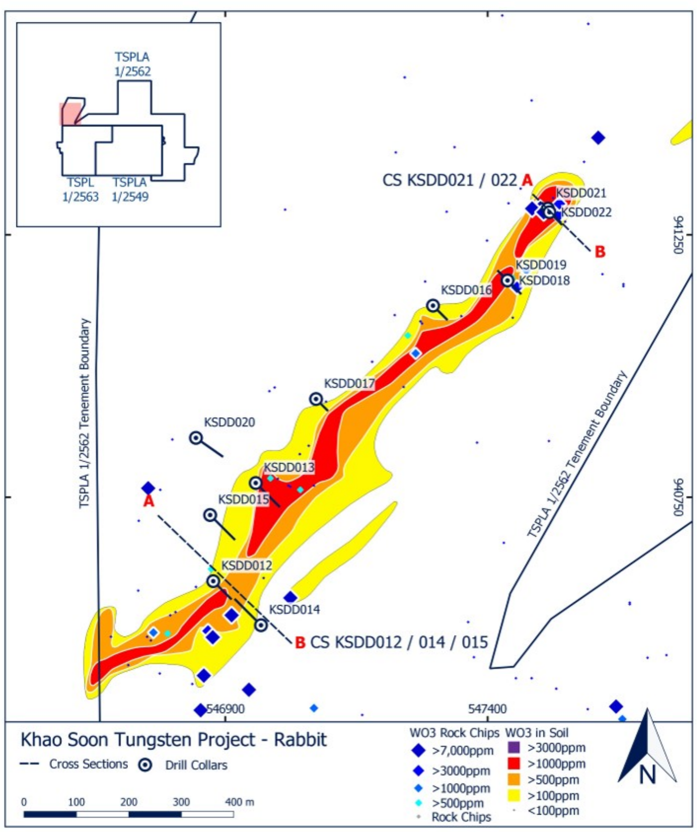
**Figure 4.8 Last Hill IP cross section (source Pan Asia)**




## 4.4.7. RABBIT

The Rabbit prospect is located approximately 3 km north of the T2 prospect and 4 km northwest of the Khao Soon mine. The prospect is defined by a 1.3 km long zone of strongly elevated tungsten in soil geochemistry and rock-chips (Figure 4.9). Smaller satellite prospects also exist to the north and east of the main trend (Figure 4.1).

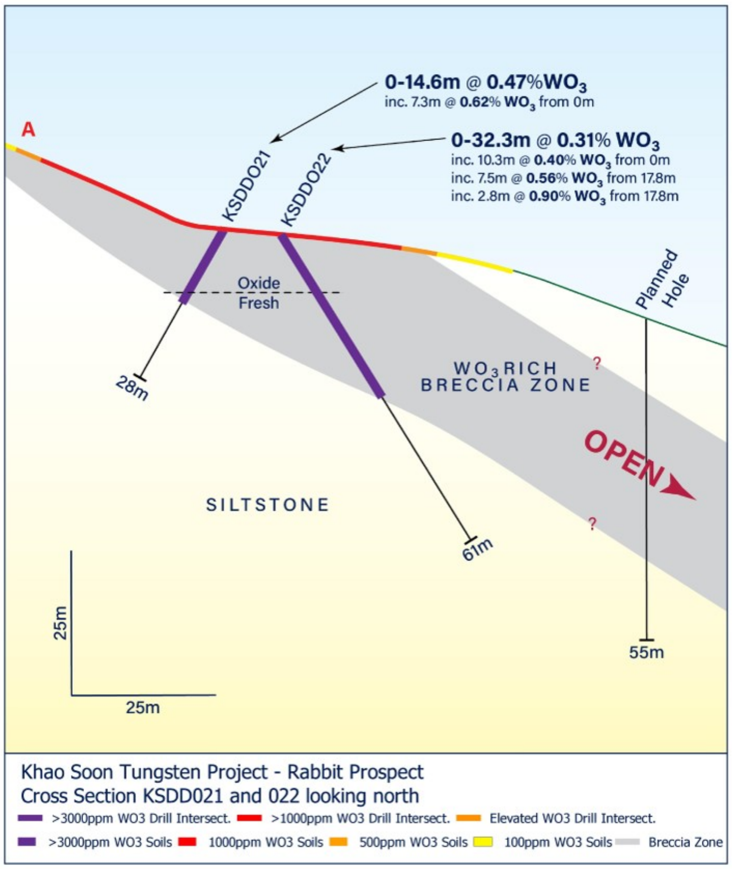
**Figure 4.9 Rabbit soil geochemistry and drillhole locations (source Pan Asia)**



Pan Asia has conducted reconnaissance diamond drilling and IP geophysics at Rabbit, with most of the holes intersecting mineralisation, including two holes which intersected tungsten mineralisation in fresh rock (Figure 4.10). The three lines of IP generally confirmed the geological model of shallow dipping mineralisation.

Pan Asia has estimated an Exploration Target of 4 to 7 Mt at 0.2 to 0.4% $WO_3$ for the Rabbit prospect.

**Figure 4.10 Rabbit cross section (source Pan Asia)**




## 4.5. EXPLORATION POTENTIAL

Optiro considers that there are a number of highly prospective exploration opportunities within the Khao Soon project and also that there is good potential to define Mineral Resources with further exploration. The Exploration Targets estimated by Pan Asia are generally supported by drilling, and with further work there is considered to be good potential to convert these to Mineral Resources.

Other targets at Khao Soon remain to be drilled, and there are several deeper geophysical targets that require drill testing. There are at least 10 individual prospect/target areas within the Khao Soon project. Soil and rock-chip geochemistry indicates a combined prospective strike length of at least 10 km for these prospects (Figure 4.1).

Exploration of the Khao Soon mine area within TSPLA1/2549 cannot commence until the Thai Cabinet approves this application. Should this licence be granted additional and potentially significant exploration targets will be available.

The Khao Soon project also exhibits areas of extensively developed regolith-hosted tungsten mineralisation, including tungsten in thick lateritic profiles commencing at or very near surface and tungsten in weathered breccia up-dip of fresh mineralisation. Pan Asia plans to use the anomalous $WO_3$ values in the lateritic regolith and weathered breccia at surface as vectors to underlying hard rock (primary) tungsten mineralisation.

Future work at Khao Soon will focus on additional drilling at selected targets, with the aim of generating Mineral Resources and expanding the potential of existing near-surface mineralisation at depth, especially by drilling identified geophysical targets.

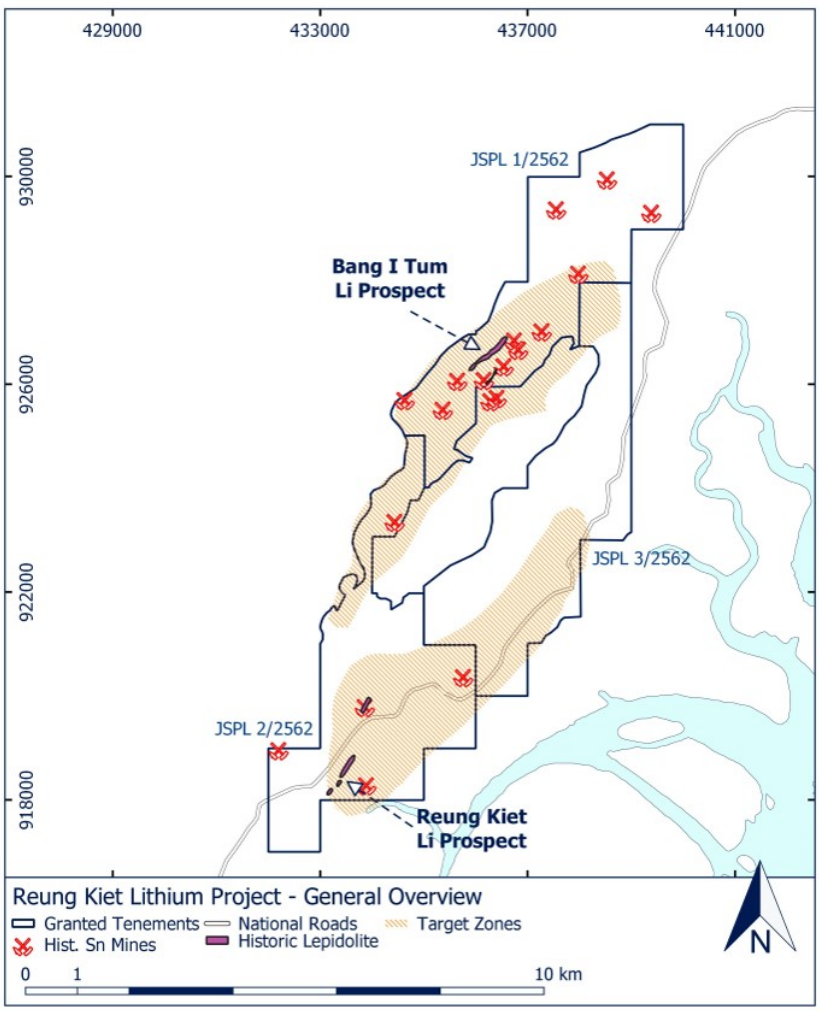
Metallurgical testwork is also planned, especially on mineralisation already identified in the weathered zone. Additional project studies are also planned, including techno-economic evaluation subject to the success of drilling and metallurgical programs.

# 5. REUNG KIET LITHIUM PROJECT

## 5.1. INTRODUCTION

The Reung Kiet lithium project is located approximately 70 km northeast of Phuket in the Phang Nga Province in southern Thailand (Figure 2.1). Pan Asia holds a 100% interest in 3 contiguous Special Prospecting Licences (SPL) covering about 38 km² (Figure 5.1).

**Figure 5.1 Reung Kiet lithium project area (source Pan Asia)**



## 5.2. HISTORY

Up to the late 1980s, southern Thailand was a globally significant tin producer. The Reung Kiet project area was part of a major tin mining region up until the mid-1980s, but there is little detailed information available regarding previous exploration and mining in the project area. Two historical open pit tin mines are present within the Reung Kiet project area; Reung Kiet and Bang I Tum (Figure 5.1).

In the Phang Nga Province, recorded tin concentrate production from 1965 to 1990 was approximately 300,000 tonnes. Much of the tin production was derived from alluvial or offshore sources, with minor production from primary deposits mined.

In the late 1960s, a joint Thai and Institute of Geological Sciences (of London) study was undertaken in the region (Garson et al, 1969). It was during this study that the lithium bearing mineral lepidolite was identified in weathered pegmatites that were being mined for tin at the Reung Kiet and Bang I Tum open pit mines, as well as at other mines in close proximity.

The 1960s study comprised geological mapping, geochemical analysis and mineralogical descriptions of various tailings, concentrate and rock samples, as well as lepidolite beneficiation studies. The lepidolite was found to contain 3 to 4% $Li_2O$. With significant focus on two key tin mines, Reung Kiet and Bang I Tum, the survey noted that the pegmatites at Reung Kiet and Bang I Tum '*are possibly the largest unzoned lepidolite pegmatites yet recorded*'. The context of this is unknown but is presumed to refer to pegmatites known in Thailand. Nonetheless, it illustrates the scale of the pegmatites. Furthermore, the survey noted:

- *'The lepidolite pegmatite at Reung Kiet, the second largest in the Phang Nga area, can be traced over a distance of nearly 1,200 metres with a maximum width of about 20 metres. The northern part of the pegmatite has been excavated to a depth of between 10 and 30 metres along a length of 300 metres.*
- *The Phang Nga lepidolites are of particular interest in that they are always fine-grained unzoned pegmatites with lepidolite fairly evenly distributed both along the length of the pegmatite and from wall to wall. in places there is local enrichment of massive lepidolite but this nowhere constitutes true zoning.'*

There is little recorded exploration activity in the project area since the 1960s study. In 2011, Thai company Mae Fah Mining Co. Limited (Mae Fah) lodged prospecting licence applications over the area. In 2014, UK based ECR Minerals plc (ECR) entered into an option agreement to acquire the project. That option did not proceed and the tenement applications lapsed. Mae Fah and ECR conducted some minor sampling in the area. This work reported 11 rock chip samples from unknown locations. Analytical results show 8 of the 11 samples yielded elevated $Li_2O$, ranging up to 1.9%. Accessory tin and tantalum was also identified.

## 5.3. GEOLOGY AND MINERALISATION

The Reung Kiet Lithium Project is situated in the Western Province of the South East Asian Tin and Tungsten Belt. In the project area Cretaceous to Tertiary aged granites intrude older sedimentary rocks of the Phuket Group comprising interbedded mudstone-sandstone.

Lepidolite pegmatites and most of the associated quartz feldspar pegmatites along the Phang Nga fault zone were emplaced in sediments of the Phuket Group within a distance of 3 km from the margins of the Khao Po and Khao Plai Bang To granites, but always outside their margins. The sediments, which comprise turbidites and pebbly mudstones, are metamorphosed up to 1 to 2 km from the granite margins. Neither the extent and degree of alteration nor the composition of the wallrocks appear to have been significant factors in controlling the position of intrusion of the lepidolite pegmatites.

Lepidolite lithium mineralisation is associated with the pegmatite dykes and veins which intrude the Phuket Group sedimentary rocks along the northeast trending Phang Nga Fault Zone. The lepidolite rich pegmatites belong to the LCT (lithium-caesium-tantalum) family of pegmatites. The pegmatites are chiefly composed of quartz, albite and lepidolite, with minor cassiterite and tantalite, as well as other accessory minerals, including some rare earths.

The granitic intrusions with which the lepidolite pegmatites are associated are dominantly medium-grained to coarse-grained biotite granites which generally have a porphyritic texture. Accessory minerals include zircon, monazite, ilmenite and cassiterite.

## 5.4. EXPLORATION

In early 2019, Pan Asia was granted three SPLs covering about 38km². Pan Asia has undertaken soil, rock chip and stream sediment sampling in conjunction with geological mapping, pit surveying and preliminary mineralogical studies. Trenching and diamond drilling at the historical Reung Kiet tin mine has also been completed, along with sighter beneficiation test-work, with these programmes delivering highly encouraging results.

The main focus of the work has been at the Reung Kiet Prospect in the south of the project area and the Bang I Tum prospect, about 10km to the north. Additional reconnaissance exploration has been undertaken more broadly across the project area.

### 5.4.1. REUNG KIET PROSPECT

The Reung Kiet prospect is focused on the historic open pit tin mine, which is approximately 500 m long and up to 120 m wide (Figure 5.2). Mining extended to about 25 m below surface, where the pegmatite became too competent to be mined by the hydraulic methods employed. Much of the pit is now filled with water to a maximum depth of about 10 m.

The pegmatite dips at a high angle to the southeast and trends about 220°, parallel to the Phang Nga Fault Zone. The main pegmatite dyke and several small parallel stringers and narrow lenses of similar pegmatite, up to about 1 m and 20 m wide, display sharp contacts with the host rocks.

Pan Asia initially conducted soil and rock chip sampling and defined lithium rich zones within soil samples and rock chips to the southwest of the pit along strike and extending to the east. Lower level lithium in soil anomalies were also located north of the pit (Figure 5.2). Follow-up programmes included wide spaced diamond drilling (5 holes for 588 m) targeting the pegmatite beneath the open pit.

Drilling identified that the main pegmatite is up to 35 m wide and contains variable lithium grades, along with accessory tin and tantalum. Drilling results are included in Appendix B, and significant results include:

- RKDD001: 6.3 m at 0.65% $Li_2O$ from 66 m and 5.8 m at 0.73% $Li_2O$ from 80 m
- RKDD002: 15.6 m at 0.82% $Li_2O$ from 55 m, including 9 m at 1.0% $Li_2O$.

Trenching and rock-chip sampling also focused on an area extending for 500 m southwest of the pit (Figure 5.3). The trenching and sampling conducted south of the pit identified numerous lithium-rich pegmatite dykes in a swarm up to 90 m wide, with individual dykes from 1 to 7 m wide (Figure 5.4). The results indicate a prospective strike length of around 1 km for the main trend, in line with the work completed by Garson et al. An Eastern trend has also been identified, but remains at an early stage of assessment.

Trench sampling, outcrop and float sampling yielded 148 samples at >0.5% $Li_2O$, with average grades of 1.41% $Li_2O$. Mineralogical studies indicate that the mineralised pegmatite contains between 25 to 45% lepidolite and that the lepidolite generally contains 3.5 to 4.5% $Li_2O$.

Pan Asia has commenced sighter metallurgical testwork (rougher flotation) on weathered pegmatite samples using trench and rock-chip samples. The testwork indicates good lithium recoveries of 93.3% to a rougher concentrate grading 2.76% $Li_2O$. The liberation of the lepidolites in all concentrates was noted as being extremely good, and whilst the recovery of lithium to the concentrate was also high, there was considered to be room for improving the lithium grade. This may be accomplished using one or two approaches:

- use of gangue mineral depressants for both clays and quartz
- a cleaner flotation step with the use of the same gangue mineral depressants.

**Figure 5.2 Reung Kiet lithium prospect (source Pan Asia)**

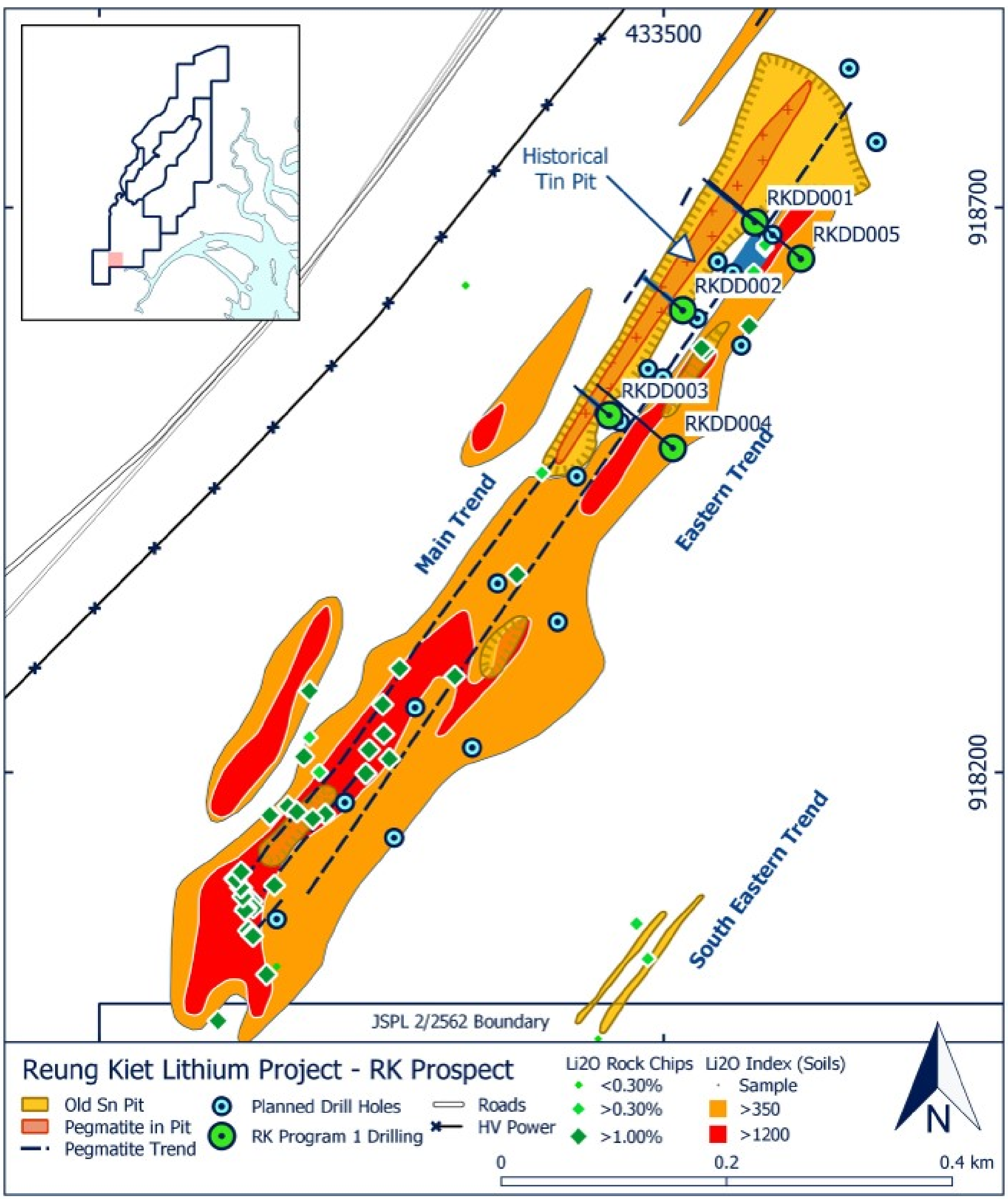


**Figure 5.3 Trench locations within southern portion of Reung Kiet prospect (source Pan Asia)**

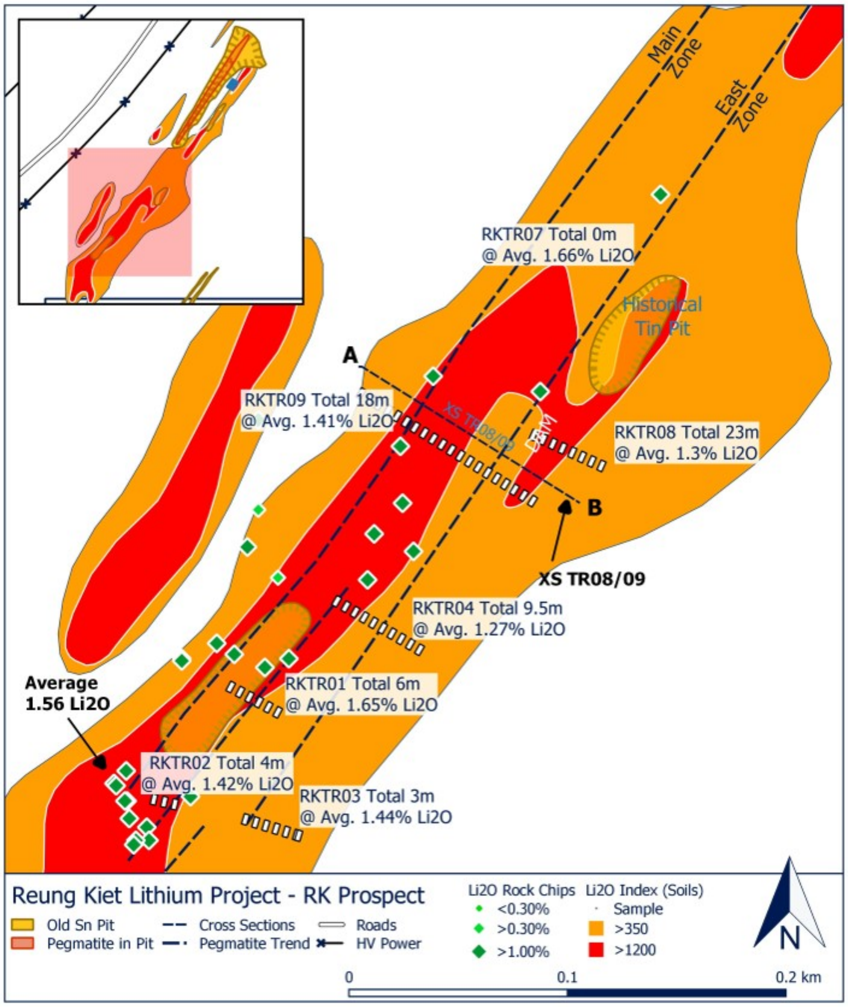
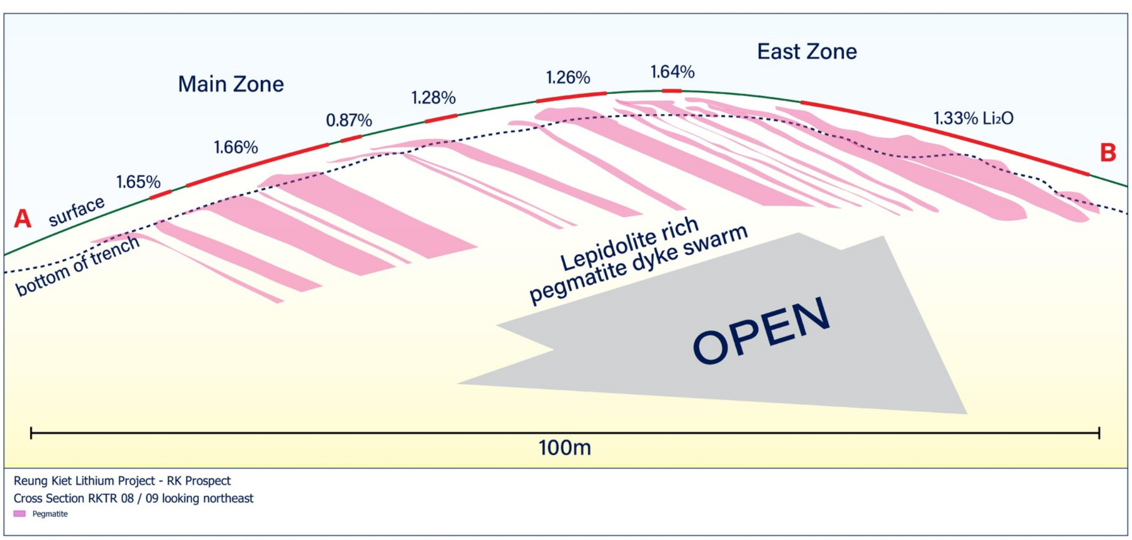



**Figure 5.4 Reung Kiet lithium prospect – trenching schematic (source Pan Asia)**



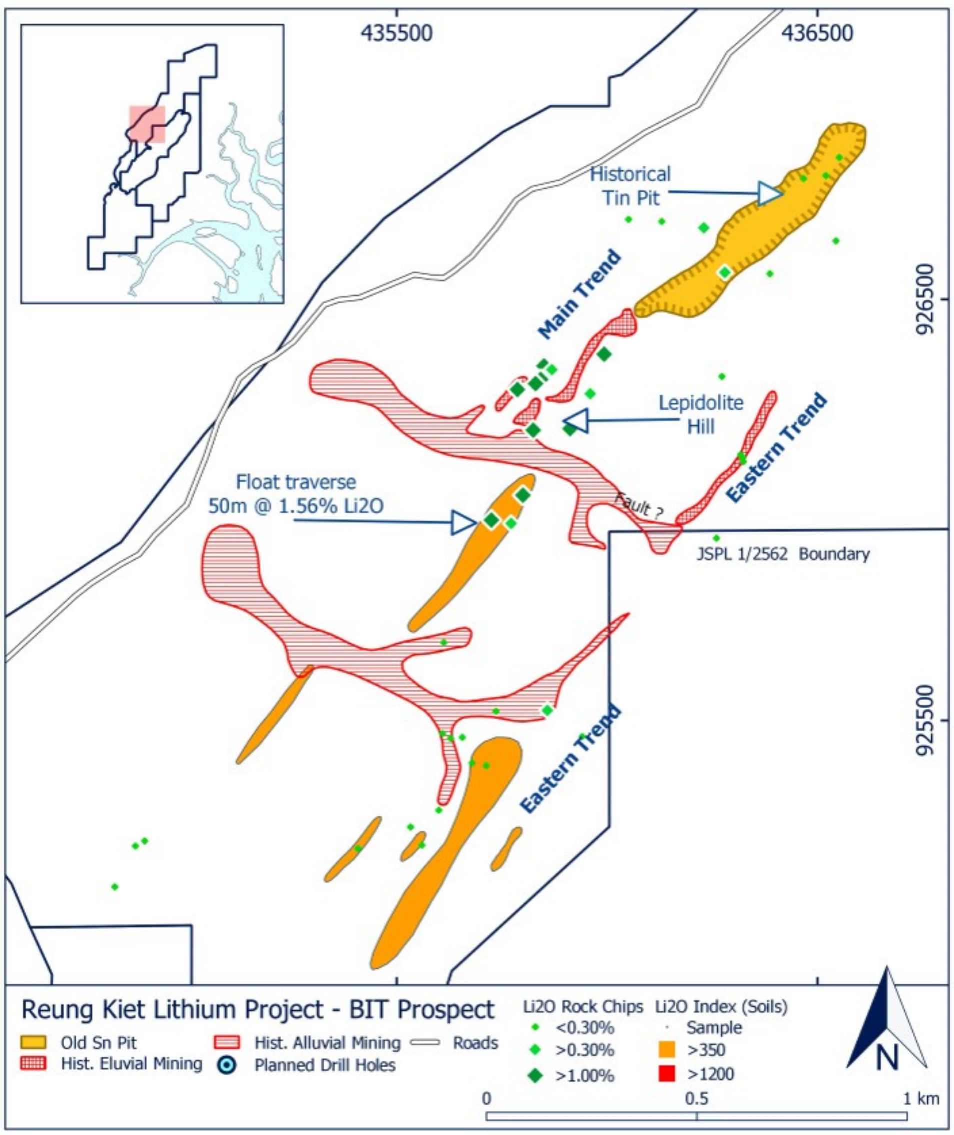
### 5.4.2. BANG I TUM PROSPECT

The Bang I Tum prospect is located 8.5 km north of The Reung Kiet prospect (Figure 5.1). Bang I Tum was a relatively large open cut tin mine. The old pit is about 650 m long and up to 125 m wide. Mining of the weathered pegmatites extended to about 30 m below surface to the top of hard rock.

The mined pegmatite is recorded to be up to 25 m wide (Garson, 1969). The pit is now filled with water to a maximum depth of 15 m. Additional smaller-scale mining extended further along strike to the southwest. Soil and rock-chip sampling has defined a main trend and an eastern trend (Figure 5.5).

The prospective main trend is about 1.5 km long (Figure 5.5). Rock chip sampling has yielded 14 of 24 samples with greater than 0.5% $Li_2O$ (average grade of 1.23% $Li_2O$) plus accessory tin and tantalum. A lepidolite pegmatite dyke swarm can be observed on a hill about 400 m south of the pit. This swarm is up to 100 m wide, with individual dykes up to 7 m wide. The eastern trend is about 1.5 km long, located approximately 350 m east of, and parallel to the main trend.

**Figure 5.5 Bang I Tum lithium prospect (source Pan Asia)**



### 5.5. EXPLORATION POTENTIAL

Pan Asia's future exploration work will focus on drilling at the Reung Kiet and Bang I Tum prospects. The drilling will principally target the known lithium pegmatites beneath the old open cuts and strike extensions, especially to the south at both prospects.

Additional follow-up work is also required on other trends previously identified, especially south along strike from Bang I Tum and around Ban Kalai. Some catchments with associated $Li_2O$ in stream sediment anomalies also require follow-up.

In Optiro's opinion, Pan Asia's Reung Kiet project is of merit and worthy of further exploration. The planned work is appropriate for the various development stages of the prospect areas and will provide suitable data to assess the technical risks or the further exploration potential of the prospects.

Optiro notes that subject to drilling success, Pan Asia will seek to generate Mineral Resources and complete project studies including metallurgical test-work and preliminary technoeconomic evaluations to potentially guide future evaluation/development pathways.

## 6. BANG NOW LITHIUM PROJECT

### 6.1. INTRODUCTION

The Bang Now Lithium Project is located in Chumporn Province, approximately 480 km west-southwest of Bangkok and 140 km north of the Reung Kiet Lithium Project (Figure 2.1). Bang Now consists of two Exploration Prospecting Licences that cover approximately 5 km² (Figure 6.1).

Within the project area Pan Asia has located historical mining activities with abundant tailings containing gravel to boulder sized lepidolite-bearing pegmatite, as well as quartz and meta-sediments. Pegmatite is visible in several old mine faces and has been sampled where possible.

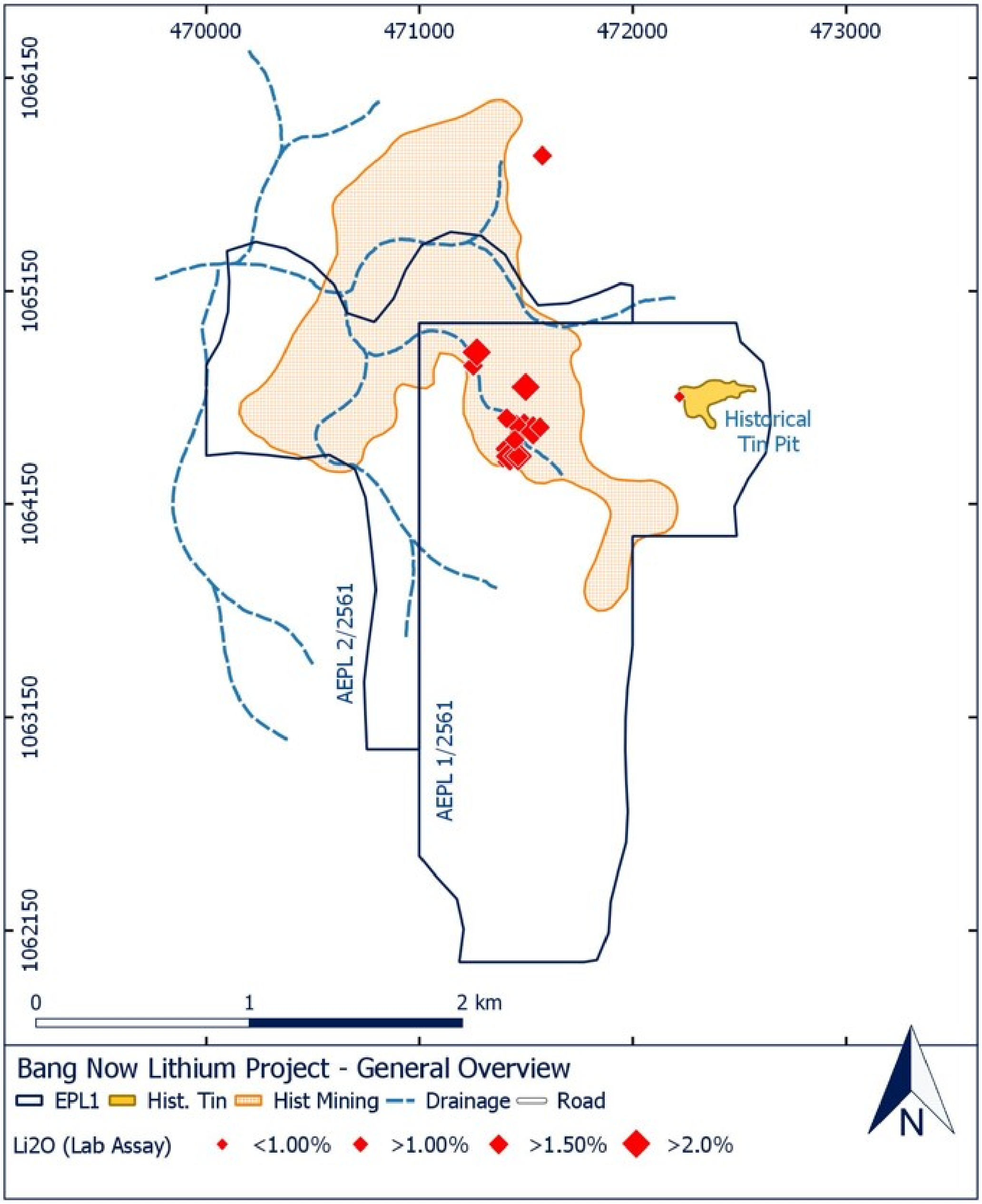
The project is located in the prospective Ranong Fault Zone and captures much of the large scale historical alluvial-eluvial tin mining in the district.

Work by Pan Asia has shown:

- from 24 rock chip samples 20 returned $Li_2O$ grades of between 0.5% and 3.38%, with an average of 1.75% $Li_2O$ (Figure 6.2)
- a potential target area of 2 km by 400 m that may host an extensive lepidolite-rich pegmatite dyke swarm
- potential for lithium mineralisation to be present in metasediment in contact with pegmatite dykes.

The Bang Now project is at a relatively early stage of assessment and further early stage, on-ground exploration is required to determine potential drilling targets. These will include rock chip and stream sediment sampling and soil geochemistry, that has been well-utilised at Pan Asia's other project areas. Pan Asia's objective is to identify potential lithium-rich pegmatites with the dimensions and grades that would justify drilling.

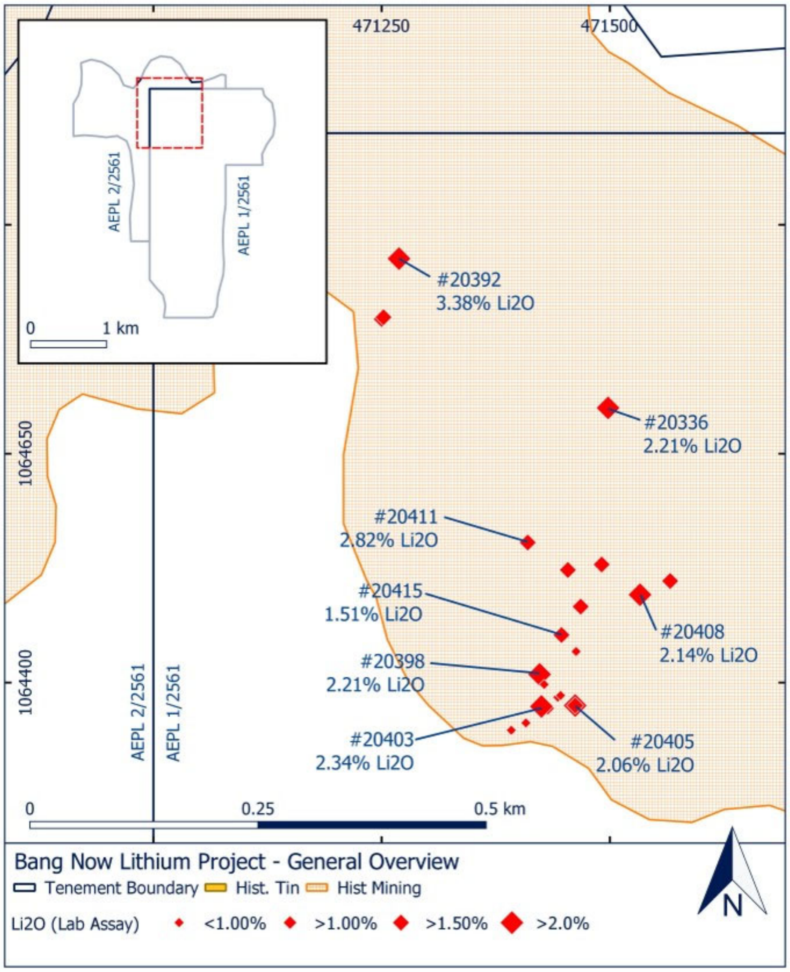
**Figure 6.1 Bang Now lithium project (source Pan Asia)**




## 6.2. EXPLORATION POTENTIAL

In Optiro's opinion, Pan Asia's Bang Now project is at early stage of assessment, but is of merit and worthy of further exploration. The planned work is appropriate for the various development stages of the prospect areas, and will provide suitable data to assess the technical risks or the further exploration potential of the prospects.

**Figure 6.2 Bang Now rock chip sampling (source Pan Asia)**




## 6.3. EXPLORATION POTENTIAL

In Optiro's opinion, Pan Asia's Bang Now project is at early stage of assessment, but is of merit and worthy of further exploration. The planned work is appropriate for the various development stages of the prospect areas, and will provide suitable data to assess the technical risks or the further exploration potential of the prospects.

# 7. WORK PROGRAMME

An exploration budget for Pan Asia's Thai projects has been provided, covering the two-year period following listing. The total proposed exploration budget for the minimum raising is A$2.265 M, approximately 57% of the total raising (Table 7.1). The proposed exploration budget for the minimum raising exceeds the minimum required expenditure commitment for the Project. Any oversubscriptions (up to a $6 M raise) would allow a proportional increase in exploration expenditure (Table 7.2).

Optiro understands that the Company plans to begin drilling at the Khao Soon project upon completion of the Offer. The Reung Kiet Lithium Project will also be advanced as a result of the positive metallurgical testwork results earlier this year. Optiro considers that the proposed two-year budget is appropriate and reasonable for the mineralisation styles within the Thai projects and the stage of exploration.

Table 7.1 **Proposed work programme budget - $4 M minimum raise (Source: Pan Asia)**

| Item | Year 1 (A$) | Year 2 (A$) | Total (A$) |
|---|---|---|---|
| Drilling and assaying | 800,000 | 565,000 | 1,365,000 |
| Project studies | 100,000 | 150,000 | 250,000 |
| Metallurgical assessments | 90,000 | 60,000 | 150,000 |
| Tenement Fees and costs | 115,000 | 85,000 | 200,000 |
| Mapping and geochemistry | 40,000 | 30,000 | 70,000 |
| Geophysics | 35,000 | 25,000 | 60,000 |
| Target generation | 40,000 | 30,000 | 70,000 |
| CSR programmes | 50,000 | 50,000 | 100,000 |
| **Total** | **1,270,000** | **995,000** | **2,265,000** |

Table 7.2 **Proposed work programme budget - $6 M maximum raise (Source: Pan Asia)**

| Item | Year 1 (A$) | Year 2 (A$) | Total (A$) |
|---|---|---|---|
| Drilling and assaying | 1,400,000 | 1,115,000 | 2,515,000 |
| Project studies | 200,000 | 200,000 | 400,000 |
| Metallurgical assessments | 200,000 | 150,000 | 350,000 |
| Tenement Fees and costs | 115,000 | 85,000 | 200,000 |
| Mapping and geochemistry | 80,000 | 70,000 | 150,000 |
| Geophysics | 90,000 | 60,000 | 150,000 |
| Target generation | 100,000 | 100,000 | 200,000 |
| CSR programmes | 90,000 | 60,000 | 150,000 |
| **Total** | **2,275,000** | **1,840,000** | **4,115,000** |

# 8. DECLARATIONS BY OPTIRO

## 8.1. INDEPENDENCE

Optiro is an independent consulting organisation which provides a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The principal office of Optiro is at 16 Ord Street, West Perth, Western Australia, and Optiro's staff work on a variety of projects across a range of commodities worldwide.

This report has been prepared independently and in accordance with the VALMIN and JORC Codes and in compliance with ASIC Regulatory Guide 112. The authors and contributors do not hold any interest in Pan Asia, their associated parties, or in any of the mineral properties which are the subject of this report. Fees for the preparation of this report are charged at Optiro's standard rates, whilst expenses are reimbursed at cost. Payment of fees and expenses is in no way contingent upon the conclusions drawn in this report. Optiro will charge Pan Asia fees of approximately A$26,000 for the preparation of this report. Optiro has not had any material prior association with either Pan Asia or the mineral assets being assessed.

## 8.2. QUALIFICATIONS

The principal person responsible for the preparation of this Report, and Competent Person, is Mr Jason Froud (Principal). This report was reviewed by Mr Ian Glacken (Director and Principal). Both Mr Froud and Mr Ian Glacken are employed by Optiro.

Mr Jason Froud [BSc (Hons) Geology, Grad Dip (Fin Mkts), MAIG] is a geologist with over 25 years' experience in mining geology, exploration, resource definition, mining feasibility studies, reconciliation, consulting and corporate roles in gold, iron ore, base metal and uranium deposits principally in Australia and Africa. Jason has previously acted as a Competent Person and Independent Expert across a range of commodities with expertise in mineral exploration, grade control, financial analysis, reconciliation and quality assurance and quality control.

Ian is a geologist with postgraduate qualifications in geostatistics, mining geology and computing who has over 35 years worldwide experience in the mining industry. Following 16 years working for a major multi-national, multi-commodity mining company in a variety of technical and geological management roles, Ian entered the consulting sphere. For over ten years Ian managed and grew the resource evaluation function of a major mining consultancy, which grew from a staff of around 30 to over 200 during this time. He also assumed responsibility for a Training business which was among the most successful in the industry and initiated a Risk Services division. Ian's skills are in resource evaluation, public reporting, quantitative risk assessment, strategic advice, geostatistics, reconciliation, project management, statutory and competent persons' reporting and mining geology studies. Ian was a founding Director of Optiro.

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# 10. GLOSSARY OF ABBREVIATIONS AND TECHNICAL TERMS

| Term | Explanation |
|---|---|
| abbreviations | °C - degrees Celsius, , g/t – grams per tonne, ha – hectare, IDM – ilmenite dry mill, JV - joint venture, km – kilometre, $km^2$ – square kilometre, kt – thousand tonnes, m – metre, $m^3$ – cubic metres, M – million, Ma – million years ago, Mt – million tonnes, % - percentage, t – tonnes, tpa – tonnes per annum, tph – tonnes per hour,. |
| chemical elements | Al – Aluminium, Ca – calcium, Fe – iron, Mg – magnesium, O – oxygen, S – sulphur, Si - silicon, Sn -tin Ti – titanium, W- tungsten, Zr - zirconium. |
| amphibolite | A rock composed largely of amphibole and other similar minerals |
| anatexite | A rock formed through partial melting of crustal rocks. |
| Cambrian | First geological period of the Paleozoic Era. The Cambrian lasted from 541 Ma to the beginning of the Ordovician Period at 485 Ma. |
| Cenozoic | The most recent of the three classic geological eras. |
| complex | A unit of rocks composed of rocks of two or three metamorphic, igneous or sedimentary rock types. |
| basalt | A fine grained igneous rock consisting mostly of plagioclase feldspar and pyroxene. |
| bedrock | The solid rock lying beneath superficial material such as gravel or soil. |
| Carboniferous | A geologic time period from the end of the Devonian at 359 Ma to the beginning of the Permian at 298.9 Ma. |
| classification | A system for reporting Mineral Resources and Ore Reserves according to a number of accepted Codes. |
| Cretaceous | A geological time period that lasted from about 145 to 66 Ma. |
| cut-off grade | The grade that differentiates between mineralised material that is economic or not to mine. |
| Devonian | a geological time period spanning 60 million years from the end of the Silurian, 419 Ma to the beginning of the Carboniferous, 359 Ma. |
| diamond drilling | Drilling method which produces a cylindrical core of rock by drilling with a diamond tipped bit. |
| Exploration Target | A statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade (or quality), relates to mineralisation for which there has been insufficient exploration to estimate a Mineral Resource. |
| felsic | Silicate minerals, magmas, and rocks which are enriched in the lighter elements such as silica, oxygen, aluminium, sodium, and potassium. |
| ferberite | A black mineral composed of iron(II) tungstate, $FeWO_4$. |
| formation | A defined interval of strata, often comprising similar rock types. |
| garnet | A group of silicate minerals that share a common crystal structure but vary in composition. |
| gneiss | A common and widely distributed type of rock formed by high-grade regional metamorphic processes from pre-existing formations that were originally either igneous or sedimentary rocks. Gneissic rocks are coarsely foliated and largely recrystallised. |
| granite | A coarse grained intrusive felsic igneous rock. |
| granitoid | A common and widely-occurring type of intrusive, felsic, igneous rock. |
| granulite facies | High-grade metamorphic rocks that have experienced high-temperature and moderate-pressure metamorphism. |
| Indicated Mineral Resource | 'An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.' (JORC 2012) |
| Inferred Mineral Resource | 'An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.' (JORC 2012) |
| intercept | Mineralised intersection in a borehole. |
| intrusive | A rock formed when magma cools slowly below the Earth's surface. |
| JORC Code | The JORC Code provides minimum standards for public reporting to ensure that investors and their advisers have all the information they would reasonably require for forming a reliable opinion on the results and estimates being reported. The current version is dated 2012. |
| Jurassic | A geological time period from the end of the Triassic at 201 Ma to the beginning of the Cretaceous at 145 Ma. |
| Measured Mineral Resource | 'A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, |

| Term | Explanation |
|---|---|
| | workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.' (JORC 2012) |
| metallurgy | Study of the physical properties of metals as affected by composition, mechanical working and heat treatment. |
| Mesozoic | A geological era from about 252 to 66 million years ago. |
| Migmatite | A rock composed of two intermingled but distinguishable components, typically a granitic rock within a metamorphic host rock. |
| Mineral Resource | 'A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.' (JORC 2012) |
| mineralisation | The process by which a mineral or minerals are introduced into a rock, resulting in a valuable deposit. |
| monazite | A phosphate mineral with a typical chemical composition of (Ce,La,Nd,Th)(PO4,SiO4). |
| mullock | Waste rock. |
| Ordovician | A geological time period from the end of the Cambrian at 485 Ma to the start of the Silurian at 444 Ma. |
| orthogneiss | A metaigneous rock with a gneissic structure; a gneiss formed by the metamorphism of an igneous rock. |
| palaeochannel | Remnant of an inactive river or stream channel that has been filled or buried by younger sediment. |
| Palaeozoic | The earliest of three geologic eras of the Phanerozoic Eon lasting from 541 to 252 Ma |
| Permian | A geologic time period from the end of the Carboniferous at 299 Ma to the beginning of the Triassic at 252 Ma. |
| Pleistocene | Geological epoch (10,000 to 2.6 Ma) following the Pliocene |
| Precambrian | Rocks older than the Cambrian age. |
| Proterozoic | Era of the geological time scale within the Precambrian eon containing rocks of approximately 1,000 – 2,500 million years old. |
| Quartz | Crystalline silica (SiO2). |
| Quaternary | A geological period comprising the Pleistocene (2.588 Ma to 11.7 thousand years ago) and the Holocene (11.7 thousand years ago to today). |
| rai | A commonly used unit of area in Thailand equal to 1,600 $m^2$, defined as 1 square sen or 40 m by 40 m. |
| saprolite | A soft, typically clay-rich, thoroughly decomposed rock, formed in place by chemical weathering of igneous, sedimentary and metamorphic rocks. |
| sediments | Loose, unconsolidated deposit of debris that accumulates on the Earth's surface. |
| sillimanite | An aluminosilicate mineral with the chemical formula Al2SiO5. |
| Silurian | A geological time period from the end of the Ordovician at 444 Ma to the beginning of the Devonian at 419 Ma. |
| Tertiary | Geological time period lasting from approximately 66 million to 2.6 million years ago. |
| Triassic | A geological time period from the end of the Permian Period at 252 Ma to the beginning of the Jurassic at 201 Ma. |
| vein | A tabular or sheet like body of one or more minerals deposited in openings of fissures, joints, or faults. |
| ultramafic | Igneous rocks with very low silica content (less than 45%), generally >18% MgO, high FeO, low potassium and are composed of usually greater than 90% mafic minerals. |
| VALMIN Code | The Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 Edition. The VALMIN Code provides a set of fundamental principles (Competence, Materiality and Transparency), mandatory requirements and supporting recommendations accepted as representing good professional practice to assist in the preparation of relevant Public Reports on any Technical Assessment or Valuation of Mineral Assets. It is a companion to the JORC Code. |
| volcaniclastic | Relating to or denoting a clastic rock which contains volcanic material. |
| wolframite | Airon manganese tungstate mineral ($(Fe,Mn)WO_4$). |
| XRF analysis | A method of elemental and chemical analysis using the emission of characteristic secondary (or fluorescent) X-rays from a material that has been excited by bombarding with high-energy X-rays or gamma rays. |

# Appendix A Khao Soon drilling results

| Hole ID | East UTM_Z 47N | North UTM_Z 47N | Elevation (m) | Dip | Azi (mag) | Depth (m) | Type | From (m) | To (m) | Interval (m) | WO3 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KSDD001 | 553204 | 938416 | 87 | -55 | 270 | 89 | DDH | 0 | 52.7 | 51.2 | 0.50 |
| incl. | | | | | | | | 14.8 | 27.6 | 12.8 | 1.07 |
| and | | | | | | | | 32.1 | 52.7 | 19.1 | 0.26 |
| incl. | | | | | | | | 32.1 | 44.8 | 12.7 | 0.18 |
| and | | | | | | | | 44.8 | 46.3 | 1.5 | No core |
| and | | | | | | | | 46.3 | 52.7 | 6.4 | 0.43 |
| incl. | | | | | | | | 47.8 | 49 | 1.2 | 1.41 |
| KSDD002 | 553205 | 938416 | 87 | -55 | 270 | 34 | DDH | 0 | 34 | 34 | 0.63 |
| incl. | | | | | | | | 13.6 | 33 | 19.4 | 0.98 |
| incl. | | | | | | | | 13.6 | 25.5 | 11.9 | 1.37 |
| incl. | | | | | | | | 19.3 | 23.5 | 4.2 | 2.23 |
| KSDD003 | 553269 | 938439 | 77 | -55 | 270 | 122.5 | DDH | 25.1 | 55.7 | 24.3 | 0.24 |
| incl. | | | | | | | | 25.1 | 30 | 4.9 | 0.37 |
| and | | | | | | | | 30 | 31.5 | 1.5 | No core |
| and | | | | | | | | 31.5 | 34.2 | 2.7 | 0.17 |
| and | | | | | | | | 34.2 | 34.7 | 0.5 | No core |
| and | | | | | | | | 34.7 | 41.9 | 7.2 | 0.23 |
| and | | | | | | | | 41.9 | 43.7 | 1.8 | No core |
| and | | | | | | | | 43.7 | 47.6 | 3.9 | 0.32 |
| and | | | | | | | | 49.1 | 51.1 | 2.0 | No core |
| KSDD003 | | | | | | | | 54.7 | 55.7 | 1.0 | 0.16 |
| KSDD003 | | | | | | | | 74.8 | 77.8 | 3.0 | 0.13 |
| KSDD004 | 553208 | 938626 | 72 | -60 | 270 | 75.5 | DDH | 6.8 | 57.1 | 41.0 | 0.26 |
| incl. | | | | | | | | 8 | 29.1 | 19.6 | 0.29 |
| incl. | | | | | | | | 16.1 | 17.6 | 1.5 | No core |
| and | | | | | | | | 17.6 | 29.1 | 11.5 | 0.32 |
| KSDD004 | | | | | | | | 29.1 | 34.1 | 5.0 | No core |
| KSDD004 | | | | | | | | 34.1 | 39.3 | 5.2 | 0.48 |
| KSDD004 | | | | | | | | 39.3 | 40.1 | 0.8 | No core |
| KSDD004 | | | | | | | | 40.1 | 41.1 | 1.0 | 0.11 |
| KSDD004 | | | | | | | | 43.1 | 57.1 | 14.0 | 0.17 |
| KSDD005 | 553280 | 938900 | 76 | -60 | 270 | 125 | DDH | 76.1 | 82.1 | 6.0 | 0.16 |
| KSDD006 | 553143 | 938901 | 78 | -55 | 90 | 98 | DDH | 14.4 | 42 | 27.6 | 0.15 |
| incl. | | | | | | | | 14.4 | 16.4 | 2.0 | 0.47 |
| and | | | | | | | | 35.9 | 42 | 6.1 | 0.24 |
| KSDD007 | 552743 | 940048 | 140 | -55 | 270 | 122.2 | DDH | | NSR | | |
| KSDD008 | 553589 | 939562 | 55 | -55 | 90 | 96.3 | DDH | 2.8 | 6.3 | 3.5 | 0.14 |
| KSDD008 | | | | | | | | 29.3 | 34.9 | 5.6 | 0.36 |
| incl. | | | | | | | | 29.9 | 31.2 | 1.3 | 0.81 |
| KSDD009 | 553573 | 939467 | 92 | -60 | 110 | 83.9 | DDH | 53.9 | 58.4 | 4.5 | 0.13 |
| KSDD010 | 553566 | 938776 | 95 | -65 | 75 | 85.4 | DDH | | NSR | | |
| KSDD011 | 553270 | 938190 | 68 | -70 | 270 | 70.2 | DDH | 40.4 | 43.4 | 3.0 | 0.19 |
| KSDD012 | 546877 | 940590 | 363 | -55 | 135 | 82.7 | DDH | 6 | 17.6 | 11.6 | 0.18 |
| incl. | | | | | | | | 6 | 14.6 | 8.6 | 0.22 |
| incl. | | | | | | | | 11.6 | 12.8 | 1.2 | 0.44 |
| KSDD012 | | | | | | | | 73.8 | 74.6 | 0.8 | 0.05 |
| KSDD013 | 546958 | 940777 | 314 | -55 | 135 | 110 | DDH | 2 | 10 | 8.0 | 0.19 |
| incl. | | | | | | | | 2 | 6 | 4.0 | 0.30 |
| and | | | | | | | | 2 | 4.2 | 2.2 | 0.48 |
| and | | | | | | | | 8 | 10 | 2.0 | 0.13 |
| KSDD013 | | | | | | | | 26 | 27 | 1.0 | 0.10 |
| KSDD013 | | | | | | | | 69.1 | 70.2 | 1.1 | 0.29 |
| KSDD014 | 546968 | 940506 | 317 | -55 | 315 | 120 | DDH | 63.2 | 64 | 0.8 | na |
| KSDD014 | | | | | | | | 77.6 | 78.2 | 0.6 | na |
| KSDD015 | 546871 | 940716 | 347 | -55 | 135 | 114 | DDH | 22.3 | 28.3 | 6.0 | 0.09 |
| incl. | | | | | | | | 22.3 | 24.7 | 2.4 | 0.17 |
| KSDD015 | | | | | | | | 33.3 | 35.6 | 2.3 | 0.12 |
| incl. | | | | | | | | 33.3 | 33.8 | 0.5 | 0.15 |

| Hole ID | East UTM_Z 47N | North UTM_Z 47N | Elevation (m) | Dip | Azi (mag) | Depth (m) | Type | From (m) | To (m) | Interval (m) | WO3 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KSDD016 | 547296 | 941115 | 172 | -65 | 135 | 86.8 | DDH | 0 | 7.6 | 7.6 | 0.30 |
| incl. | | | | | | | | 0 | 4.9 | 4.9 | 0.39 |
| and | | | | | | | | 1.8 | 4.9 | 3.1 | 0.51 |
| and | | | | | | | | 6.9 | 7.6 | 0.7 | 0.30 |
| KSDD017 | 547073 | 940937 | 240 | -65 | 135 | 70.3 | DDH | | NSA | | |
| KSDD018 | 547434 | 941163 | 174 | -55 | 315 | 43 | DDH | 1.3 | 9.9 | 8.6 | 0.07 |
| incl. | | | | | | | | 7.8 | 9.9 | 2.1 | 0.11 |
| KSDD019 | 547438 | 941163 | 174 | -60 | 135 | 70 | DDH | 1.9 | 14.0 | 12.1 | 0.08 |
| incl. | | | | | | | | 8.5 | 14.0 | 5.5 | 0.16 |
| s | | | | | | | | 8.5 | 9.4 | 0.9 | 0.27 |
| KSDD020 | 546844 | 940863 | 296 | -60 | 125 | 122.5 | DDH | 56.6 | 56.95 | 0.35 | na |
| KSDD021 | 547515 | 941300 | 176 | -60 | 315 | 28 | DDH | 0 | 14.55 | 14.55 | 0.47 |
| incl. | | | | | | | | 0 | 7.3 | 7.3 | 0.62 |
| KSDD022 | 547518 | 941293 | 176 | -60 | 135 | 63 | DDH | 0 | 32.2 | 32.3 | 0.31 |
| incl. | | | | | | | | 0 | 10.3 | 10.3 | 0.40 |
| and | | | | | | | | 14.3 | 32.3 | 18 | 0.32 |
| and | | | | | | | | 17.8 | 25.3 | 7.5 | 0.56 |
| and | | | | | | | | 17.8 | 20.6 | 2.8 | 0.90 |
| and | | | | | | | | 29.3 | 32.3 | 3 | 0.09 |

# Appendix B Reung Kiet drilling results

| Hole ID | East UTM_Z 47N | North UTM_Z 47N | Elevation (m) | Dip | Azi (mag) | Depth (m) | Type | From (m) | To (m) | Interval (m) | $Li_2O$ (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RKDD001 | 433581 | 918687 | 13 | -55 | 310 | 108 | DDH | 66.2 | 72.4 | 6.3 | 0.65 |
| RKDD001 | | | | | | | | 79.7 | 85.5 | 5.8 | 0.72 |
| RKDD001 | | | | | | | | 82.7 | 83.7 | 1.0 | 0.80 |
| RKDD001 | | | | | | | | 84.7 | 85.5 | 0.8 | 1.24 |
| RKDD002 | 433517 | 918609 | 18 | -55 | 310 | 75.2 | DDH | 55.0 | 70.6 | 15.6 | 0.82 |
| incl. | | | | | | | | 61.0 | 70.0 | 9.0 | 0.99 |
| RKDD003 | 433452 | 918516 | 14 | -55 | 310 | 69.5 | DDH | 34.0 | 35.1 | 1.1 | 0.60 |
| RKDD003 | | | | | | | | 36.3 | 37.9 | 1.7 | 0.44 |
| RKDD003 | | | | | | | | 39.2 | 41.0 | 1.8 | 0.42 |
| RKDD004 | 433500 | 918485 | 7 | -55 | 310 | 151.8 | DDH | 32.2 | 34.0 | 1.8 | 0.99 |
| RKDD004 | | | | | | | | 52.2 | 53.0 | 0.8 | 0.31 |
| RKDD004 | | | | | | | | 142.9 | 143.6 | 0.7 | 0.67 |
| RKDD005 | 433630 | 918651 | 8 | -60 | 305 | 183 | DDH | 136.1 | 138.8 | 2.7 | 0.46 |
| RKDD005 | | | | | | | | 152.1 | 153.1 | 1.0 | 0.38 |
| RKDD005 | | | | | | | | 158.1 | 161.1 | 3.0 | 0.49 |
| RKDD005 | | | | | | | | 165.1 | 167.1 | 2.0 | 0.52 |

# Appendix C JORC Code Table 1 – Khao Soon Drilling

## SECTION 1 SAMPLING TECHNIQUES AND DATA

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. 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.*<br>*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>*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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | • Samples are derived from diamond drilling conducted by Pan Asia (PAM) in 2017 to 2018 and aircore drilling conducted by Thai Goldfields (TGF) in 2013. Aircore samples were speared to obtain a sub-sample. Pan Asia drill core is cut in half with one half being the sub-sample. These methods are considered appropriate.<br>• Routine analysis of a tungsten Certified Reference Material (CRM) or 'standards' which are inserted during XRF or laboratory analysis. Duplicate samples are also used along with internal laboratory QA/QC data reported.<br>• Tungsten mineralisation is hosted in laterite and weathered rock transitioning into fresh rock. Sample recovery for the air core drilling is not known. Sample recovery for PAM core drilling was generally low to moderate in the laterite and weathered zones.<br>• Air core drilling was conducted to obtain mostly 3 m samples from which a 2 to 4 kg sub-sample was recovered using the spear method. This sample was then dried and split to recover a 0.2 to 0.6 kg sub sample which was then pulverised and a 60 gram assay pulp is extracted for analysis.<br>• Drill core is cut in half to collect mostly 0.5 to 1.5 m individual sample lengths. Crushing to -6 mm of the whole sample, then riffle splitting and pulverisation of 0.5 to 1 kg, from which a 100g sample was extracted for assay. |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).* | • Reverse circulation (aircore) drilling was employed with a hole diameter of 75 mm or 3'. This is a face sampling drilling method.<br>• Diamond drilling was conducted using HQ, HQ triple tube or NQ/NQ triple tube. The core was not oriented. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.* | • There is no recording of drill sample recovery for the aircore drilling.<br>• Diamond core recovery is recorded for every drill run by measuring recovered solid core length over the actual drilled length for that run.<br>• Triple tube drill methods were used to assist with maximising sample recovery especially in the weathered zone. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *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.* | Sample recovery of the mineralised zones (>400 ppm $WO_3$) averages 72%. This excludes zones where no core and therefore no sample or assays are recorded.<br>• Most aircore samples were dry or slightly damp with minimal loss of fines and limited potential for any other significant loss or gain of material. Some samples especially those near the end of hole were reported to be wet. There is a general slight decrease in grade where samples are wet at the base of the mottled zone or extending into weathered bedrock. This observation is thought to be geological. but sample bias cannot be ruled out as tungsten is hosted in relatively dense minerals.<br>• For diamond core drilling scatterplots of grade v recovery indicate that high tungsten grades slightly concentrate with recoveries of 40 to 65%, potentially indicating some bias. Lower to moderate tunsten grades broadly occur across the broad range of recoveries. |
| **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.* | • Core and chip samples were geologically logged with salient features recorded to sufficient detail for the results being reported.<br>• Logging was qualitative. Colour, grain size, weathering, lithology type and salient comments are recorded. A photograph is available for all aircore samples, as drilled, and for parts of the QA-QC process. For drill core each tray is photographed wet and dry. Some cut core photos are also recorded.<br>• 100% of every hole is geologically logged. For the aircore program, it represents 528 log records from 1540 m of drilling. For the diamond core there are around 240 logged intervals from 1,912 m of drilling. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | |
| | *The total length and percentage of the relevant intersections logged.* | |
| **Sub-sampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | • Half core samples are cut with a knife or broad chisel (when soft enough) or cut with a diamond saw if too hard to be hand cut. The remaining half is retained in the core tray. The bagged sample is crushed to 100% passing -6 mm. A 0.5 to 1 kg sub-sample is then riffle spilt. The entire sample is then pulverized to 75% passing 75 microns.<br>• For aircore holes, the 20 to 30 kg bag sample from the rig was laid down, the bag cut and the sample slightly flattened. An aluminum scoop/spear was used to sample this material on a rough grid. These sub-samples generally weighed between 2.5 to 4.5 kg. There are 20 wet samples recorded in the dataset. Retained TGF 'coarse reject' samples were used by PAM to derive a further sub-sample/duplicate, in accordance with sampling methods used by TGF. The above methods in association with appropriate QA/QC checks conducted by PAM are demonstrated as being adequate.<br>• Initial sub-sampling as described above typically collected 15 to 30% of the aircore drill sample and further sub-sampling collected 10 to -20% of that sample. This sample was pulverised and an 'assay pulp' was collected.<br>• For drill core samples 50% of the drilled interval is collected for sampling, and around 30 to 50% of this sample is pulverised to produce the pulp for assay.<br>• The methods described are considered appropriate.<br>• The drilled aircore samples at the drill rig were 'laid out' and sampled on a rough grid to improve representivity. This sub-sample is placed into a smaller bag and mixed to ensure homogeneity. This sample is again 'spear' sampled to obtain a smaller sub-sample which was then pulverised. After pulverising a 60 gram 'assay pulp' was extracted using a spoon. Every type of sub-sample was weighed and recorded by TGF.<br>• TGF conducted some duplicate sampling. PAM has undertaken duplicate sampling of the drill 'coarse reject' sub- |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | |
| | *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.* | |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | samples and of the 'pulp reject' samples. There is acceptable agreement between TGF duplicates and the original pulp and pulp reject 'duplicate' samples. To validate the TGF sub-sampling methods, PAM conducted work seeking to duplicate the type of sub sampling as employed by TGF. A 2 m deep hand auger hole was dug to gain a 26 kg sample. Three sub-samples were collected using the TGF 'spear' sub-sampling methods. PAM also collected two riffle split samples from the bulk auger sample. Comparison of the tungsten assay results indicate the TGF sampling methods produce an acceptably representative sample.<br>• For the Pan Asia diamond drilling no field duplicate/second-half sampling has been undertaken<br>• The sample/sub-sample sizes are considered appropriate for material being sampled. The pulverised sub-sample is also 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.*<br>*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.*<br>*Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • The re-analysis of TGF aircore samples utilised pressed pellet XRF by ALS methods ME-XRF05 or ME-XRF15b (22 samples) and fusion bead with ICP-MS finish (96 samples) by ALS method ME-MS85. Analysis was undertaken at ALS Chemex in Brisbane, Australia. These samples were dried and re-pulverised by ALS in accordance with ALS method PUL-32. QA-QC work was also conducted on 'coarse reject' raw dill sample.<br>• For the PAM drilling, all samples were prepared by SGS in Bangkok and a 100 g assay pulp sent to SGS in Perth for analysis. A sodium peroxide digestion (SGS method DIG90Q) was employed with analysis by ICP-MS (SGS method IMS90Q). Three samples >0.5% tungsten were analysed by XRF (SGS method XRF78S). These techniques employed are appropriate for tungsten analysis and are considered to be a total analysis technique.<br>• The XRF analyzer used by TGF was a 'Thermo NITON XL3t' in 'Industrial Bulk Cu/Pb/Zn' mode with a total 150 seconds reading time. PAM has utilised an Olympus Delta hand-held XRF 400 Premium (hhXRF) in Geochem and/or soil mode, with dual beam analysis for 30 seconds each. No calibration factors were applied to the Niton XRF data. For the PAM Olympus hhXRF data a calibration factor is applied to the reported tungsten grades. This was derived from the comparison between laboratory derived tungsten results (including standards) and those reported by hhXRF. A linear formula of Est. W = hhXRF W x 1.44-170.<br>• PAM submitted a total of 128 of the TGF samples for re-analysis. These samples were comprised of 118 assay pulps, 6 pulp rejects collected as 60 g sub- samples and 4 TGF coarse rejects that PAM collected as 1.5 kg spear samples. PAM also collected a field auger sample (26 kg) in an effort to duplicate the sub-sampling techniques employed by TGF. The sub-samples included 3 samples, duplicating the TGF sampling methods and two 1.5 kg riffle split samples for grade comparison. All samples collected by PAM were sent to ALS in Brisbane for preparation and analysis. PAM did not submit any standards or blanks nor conduct external laboratory checks for the samples submitted to ALS, rather relied on internal ALS QA-QC. The 118 assay pulps act as laboratory check samples of the original handheld XRF data. The pulp rejects and coarse rejects effectively act as duplicates to the original samples.<br>• For the PAM diamond drilling program, certified tungsten standards and a coarse blank were inserted at regular intervals into the appropriate sample stream. Duplicates or external laboratory checks have not been used. However, all pulp reject samples were analysed with a hand held XRF. The comparison of the lab results to tungsten standards and the hhXRF results show excellent correlation. However, the hhXRF consistently undercalls tungsten grades in a consistent fashion to the point where it can be accurately modelled to reconcile with the laboratory grades, by the use of a calibration factor. Results from this work establish levels of precision and accuracy in sampling, sub-sampling and analytical methods that are acceptable for the results being reported. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>*Discuss any adjustment to assay data.* | • Significant intersections from the TGF drilling have been confirmed by the re-sampling and re-assaying program undertaken by PAM. Original samples have been sighted in association with the TGF geologist responsible for the drilling program, who is now Senior Geologist for PAM.<br>• For the Pan Asia core drilling significant intersections have been verified by alternate company personnel, being the Chief Geologist and Exploration Geologist.<br>• Twinned holes not used.<br>• Primary data includes GPS co-ordinates, paper geological logs and sample data records. The hard copy records are checked against Excel spreadsheet files derived from digital data import or manual data entry.<br>• Adjustment of the data includes the conversion of tungsten reported in lab and hhXRF analysis to $WO_3$, by multiplying W by 1.261. |
| **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.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | • Drill holes are surveyed by handheld GPS, accurate to about 2 to 5 m.<br>• The grid system used is WGS84, Zone 47. Northings and eastings are reported in metres.<br>• The topographic control used is Thailand national data. This is reported at 10 m contour intervals. This data was checked against Google Earth elevations and those derived from GPS. The data is considered adequate for the purpose reported. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.*<br>*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*<br>*Whether sample compositing has been applied.* | • The TGF drill hole data spacing is typically 200 m x 50 m. PAM diamond drilling is at various spacings.<br>• Sample compositing has not been applied. |
| **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.*<br>*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.* | • The TGF sampling is undertaken from vertical holes through a horizontally layered laterite deposit. Primary structures are unlikely in this material. There is potential for primary structures in the bedrock, where some mineralisation is reported. The PAM diamond core drilling was mostly undertaken normal to the strike of possible structures, and in many cases normal or near normal to the dip of interpreted mineralised structures. |
| **Sample security** | *The measures taken to ensure sample security.* | • The drilled sub-samples were transported back to the local TGF office. The assay pulps, reject and coarse reject pulps derived from these samples are securely stored. TGF samples selected for re-analysis by ALS were transported back to Australia by PAM personnel and mailed to ALS via registered post. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | • As previously described, PAM has conducted audit sampling of assay pulps, reject pulps and coarse reject pulps. Comparison of these results indicate the TGF sampling, sub-sampling and assay data is acceptable. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | | • The sampling techniques for the PAM diamond drilling have been less formally assessed, aside from checks of assay accuracy/precision which provide acceptable comparisons. The sub-sampling and sample preparation techniques employed are industry standard. However audits or reviews have not been undertaken. |

## SECTION 2 REPORTING OF EXPLORATION RESULTS

| 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.*<br>*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.* | • The tenements were previously held as Special Prospecting Licences by Thai Mineral Venture Co. Limited (TMV), a 100% owned subsidiary of Pan Asia Metals. Before the scheduled expiry of the original tenements, replacement Special Prospecting Licence Applications (SPLA) were submitted, these are TSPLA 1/2563 and TSPLA 1/2562.<br>• The tenure is in the application stage. TSPLA 1/2563 has been offered to TMV, subject to the payment of fees and bonds, which have been lodged.<br>• PAM is unaware of any impediments to obtaining a licence to operate in the area aside from the normal provisions that operate in Thailand, such as regulatory approvals in association with securing agreements with relevant landholders. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | • TGF is the only company recorded to have done exploration, prior to PAM. PAM is reliant on the TGF data, having conducted appropriate due diligence and QA-QC studies. The TGF work has been conducted to an acceptable level. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | • The deposit type is described as tungsten hosted in laterite and weathered to fresh breccia, probably associated with faulted hydrothermal breccia. The mineralisation is located in the Main Range Province of the South East Asian tin tungsten belt. Granitoid magmatism due to subduction and collision of microplates during the Early Triassic to Oligocene has generated some world-class tin - tungsten deposits in the region. |
| **Drillhole Information** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>• *easting and northing of the drillhole collar*<br>• *elevation or RL (elevation above sea level in metres) of the drillhole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth hole length.* | • Included in main report. |
| **Data aggregation methods** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or* | • Intersections are reported at >0.05% $WO_3$ and may rarely allow for internal diliution of >0.05% $WO_3$. No top cut has been applied. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • Higher grade zones within the bulk lower grade zones are reported, where material.<br>• Metal equivalents are not reported. |
| **Relationship between mineralisation widths and intercept lengths** | • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • The lateritic mineralisation intersected in the aircore is horizontal and the drill holes are vertical. Accordingly reported intersections are perpendicular to mineralisation and represent true widths. For Pan Asia drill core, the results reported for holes KSDD001 to 012, can be considered very near to true thickness. For holes KSDD013 to 022 some intersections are apparent width and are reported as such. |
| **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.* | • Included in main report. |
| **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.* | • All drill results are reported. |
| **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.* | • The surface areas containing and surrounding the reported drilling results have been mapped and soil sampling and rock-chip sampling has taken place. Results from these programs indicate extensive development of a ferruginous clay-pisolitic zones and lateritic and weathered breccia zones at surface, and occurring in association with large tungsten in soil anomalies. |
| **Further work** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • The mineralisation has generally been intersected in widely spaced holes in close proximity to surface. Infill drilling is planned as well as extensional drilling at depth. A metallurgical evaluation is also planned for the variety of oxidised and fresh mineralisation intersected. |

# Appendix D JORC Code Table 1 – Khao Soon Surface Geochemistry

## SECTION 1 SAMPLING TECHNIQUES AND DATA

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. 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.*<br>*Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>*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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | • Historical (TGF) soil, rockchip, outcrop, subcrop and float samples were collected and weighed around 1 to 3kg. Most samples are considered as non-selective. Pan Asia (PAM) soil and rock sampling are very similar or identical to those of TGF.<br>• Soil and rock samples are taken to enable geochemical characterisation of individual samples and prospect areas. As such, the samples are representative of mineralisation within the sample area.<br>• TGF and PAM samples were collected by experienced field geologists. For historical TGF results, soil and rock chips were dried, crushed (rocks only to -3 mm) to produce a 0.5 to 0.8 kg sample. Subsamples were pulverised to 90% passing 75 microns, using in to house facilities in Thailand. Analysis was mostly by hand held XRF. PAM rock samples were crushed to -6 mm, then a 0.5 to 1 kg sub to sample is split and pulverised to 75% passing 75 microns. PAM soil samples are directly analysed with hand held XRF. |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).* | • No drilling reported in this appendix. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>*Measures taken to maximise sample recovery and ensure representative nature of the samples.* | • No drilling reported in this appendix. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *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.* | |
| **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.* | • Rock chip and soil samples are described along with sample type, geological and site details are recorded. The depth of the soil sample is also recorded.<br>• Photography and length is not applicable. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | |
| | *The total length and percentage of the relevant intersections logged.* | |
| **Sub-sampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | • No drilling is reported in this appendix.<br>• For historical TGF samples, soils were dried, then split to obtain 700 to 800 g sample, this sample was crushed to -3 mm for hhXRF analysis. Rock samples were dried, then crushed to -3 mm and 0.5 to 0.8 kg subsample was split then pulverised to 90% passing 75 microns, using local contract facilities in Thailand. The pulp sample was then analysed by hhXRF. PAM rock samples are prepared at SGS Bangkok. Samples are crushed to -6 mm, then a 0.5 to 1 kg subsample is split and pulverised to 75% passing 75 microns. PAM soil samples are air to dried then directly analysed with hand held XRF. No formal QA/QC procedures are documented for geochemical samples. The sample preparation and sample size are considered appropriate for the material being sampled. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | |
| | *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.* | |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | |
| **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.* | • Samples, when assayed at a lab were assayed using sodium peroxide fusion digest with ICP to MS finish at SGS in Perth or ALS in Brisbne for tungsten. This method is considered a total digest.<br>• Internal laboratory standards, splits and repeats were used for quality control.<br>• For historical TGF samples, these were analysed using a hand held Niton XRF for tungsten. Many samples typically above 500 ppm tungsten were reanalysed by independent Thai laboratories using XRF. QA/QC unknown. However, the comparison between hhXRF results and the reported laboratory results indicates acceptable accuracy and |
| | *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make* | |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *and model, reading times, calibrations factors applied and their derivation, etc.*<br>*Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | precision between the two data sets. For Pan Asia samples, laboratory prepared pulps are analysed using a hand held Olympus Delta 400 Premium in Geochem and/or soil mode, with dual beam analysis for 30 seconds each. Tungsten assays show very good correlation with lab derived tungsten analysis. Other elements of interest also exhibit good correlation with lab results indicating acceptable accuracy and precision |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>*Discuss any adjustment to assay data.* | • Sample results have been checked by company Senior Geologist.<br>• Assays reported as Excel and secure pdf files.<br>• Data entry carried out digitally by field personnel to minimise transcription errors. Field documentation procedures and database validation conducted to ensure that field and assay data are merged accurately.<br>• Following factor adjustments applied to assay data for reporting purposes: W to $WO_3$ = 1.261x |
| **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.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | • Sample locations picked up with hand held GPS, with approximately 3 to 5 m accuracy, sufficient for first pass mapping and sampling.<br>• All locations recorded in UTM Zone 47N, in metres.<br>• Topographic locations interpreted from publically available data in Thailand. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.*<br>*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*<br>*Whether sample compositing has been applied.* | • All rock samples were selected by the geologist to assist with identification of the nature of the rocks and mineralisation present at each location. No set sample spacing was used and samples were taken based upon geological variation at the location.<br>• Soil samples were collected by field crew under supervision at a nominal spacing of 100 m x 25 m.<br>• Sample compositing was not applied. |
| **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.*<br>*If the relationship between the drilling orientation and the orientation of key mineralised structures is* | • Samples are point samples. Soil sample lines are conducted normal to the interpreted strike of mineralisation. Rock samples are conducted as point samples. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *considered to have introduced a sampling bias, this should be assessed and reported if material.* | |
| **Sample security** | *The measures taken to ensure sample security.* | • Samples were securely packaged when transported by independent carrier or company personnel to ensure safe arrival at assay preparation and analysis facility. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | • No audits or reviewa conducted at this stage of the exploration program. |

## SECTION 2 REPORTING OF EXPLORATION RESULTS

| 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.*<br><br>*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.* | • Reported above in Appendix C. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | • Thai Goldfields (TGF) commenced exploration in the Khao Soon area from 2006 to 2014. During that time exploration has included:<br>• Regional soil sampling (nearly 9,000 samples) covering 73 sq km<br>• Geological mapping /interpretation over selected targets<br>• Rock chip sampling (approximately 4,000 samples) over much of licence areas<br>• Re to processing and interpretation of regional aeromagnetics<br>• RC aircore drilling of soil anomalies at regolith Target 1 and Target 2 |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | • Reported above in Appendix C. |
| **Drillhole Information** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>  • *easting and northing of the drillhole collar*<br>  • *elevation or RL (elevation above sea level in metres) of the drillhole collar* | • Reported above in Appendix C. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>*hole length.* | |
| **Data aggregation methods** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • Not applicable, sample results reported as individual surface samples. |
| **Relationship between mineralisation widths and intercept lengths** | • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • Not applicable, soil and rock chip sample results reported as individual surface samples collected from soils, rock float, sub crop or outcrop. |
| **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.* | • Included in main report. |
| **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.* | • Results of $WO_3$ in soils and rocks are shown in figures in main report. |
| **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.* | • All meaningful and material exploration data relevant to the deposit style sought has been reported. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Further work** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • At Khao Soon further work may include infill soil sampling, rock to chip sampling, geophysics and drilling. |

# Appendix E JORC Code Table 1 – Reung Kiet Drilling

## SECTION 1 SAMPLING TECHNIQUES AND DATA

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. 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.* | • Cut drill core samples were selected in order to ascertain the degree of lithium enrichment and the samples are representative of the lithium mineralisation within the samples collected but may not necessarily represent the composition of the entire pegmatite.<br>• The mineralisation is contained within alpo-pegmatites. Half HQ3 or NQ3 samples were used average sample weight was 2 kg and average sample interval was 0.99 m. The whole sample was fine crushed and then split to obtain a 1 kg sub-sample all of which is pulverised to provide the assay pulp. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | |
| | *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).* | • All holes are diamond core from surface. HQ and NQ triple tube diameters were employed. The core was oriented using the spear method, as directed by the rig geologist. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | • Drill core recovery is recorded for every drill run by measuring recovered solid core length over the actual drilled length for that run.<br>• Triple tube drill methods were used to assist with maximising sample recovery especially in the weathered zone.<br>• Sample recovery through the mineralised zones averages 99%, so little bias is anticipated. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *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.* | |
| **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.* | • The drill core was geologically logged at sufficient detail. Geotechnical logging was limited to contact zones and major structures.<br>• The logging is mostly qualitative in nature with some quantitative data recorded. Photographs of each core tray wet and dry and of wet cut core were taken. The total length of core logged was 582.5m, of which 126.2m was sampled in 127 samples. |
| | *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* | |
| | *The total length and percentage of the relevant intersections logged.* | |
| **Sub-sampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.* | • All core for sampling was cut in half with a diamond saw. A further 6 samples were cut as ¼ core from the original half core, for QA/QC.<br>• The sample preparation technique is industry standard, fine crush to 70% less than 2 mm. A sub-sample of 1 kg or 100% of sample weight if less than 1 kg is obtained via rotary splitting. This sample is pulverised to 85% passing 75 microns. The laboratory reports QA/QC particle size analysis for crushed and pulverised samples. The laboratory also reports results for internal standards, duplicates, prep duplicates and blanks. Pan Asia has collected 6 ¼ core pairs. Comparison of results indicate excellent agreement between $Li_2O$ grades from each ¼ pair.<br>• The sample weights average 2.1 kg. This is considered appropriate for the material being sampled. |
| | *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* | |
| | *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* | |
| | *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* | |
| | *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.* | |
| | *Whether sample sizes are appropriate to the grain size of the material being sampled.* | |
| **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.* | • The initial assaying procedure used is 4 acid digestion followed by ICP-AES analysis. Some pulps also had sodium peroxide digestion with ICP finish, all by ALS Chemex in Vancouver or Perth. Both methods are considered a total technique.<br>• All pulp samples were analysed using a hand held Olympus Delta 400 Premium X-Ray Flourescence analyser in Geochem and Soil mode, with dual beam analysis for 30 seconds each. Lithium cannot be analysed by hhXRF. However, Rb, K, Mn show good correlation with lab reported Li results. Other elements of interest such as Sn and Ta |
| | *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make* | |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *and model, reading times, calibrations factors applied and their derivation, etc.* | are also recorded by hhXRF as well as many others. A daily calibration check is required for the hhXRF and duplicates and certified standards are routinely analysed. |
| | *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • The laboratory reports results for internal standards, duplicates, prep duplicates and blanks. PAM has conducted ¼ sampling and re-analysis of sample pulps utilising different digestion and assay methods. Both the lab QA/QC and additional PAM data indicate acceptable levels of accuracy and precision for the work undertaken. |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>*Discuss any adjustment to assay data.* | • Sample results have been checked by company Chief Geologist and Senior Geologist. Lithium mineralisation is associated with visual zones of distinctively coloured lepidolite.<br>• Assays reported as Excel secure pdf files.<br>• Data entry carried out both manually and digitally by Geologists. To minimise transcription errors field documentation procedures and database validation are conducted to ensure that field and assay data are merged accurately.<br>• The adjustments applied to assay data for reporting purposes are Li x 2.153 to convert from Li to $Li_2O$. |
| **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.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | • Drill hole locations are derived from hand held GPS, with approximately 2 to 5 m accuracy, sufficient for this type of reconnaissance drilling.<br>• All locations reported are UTM WGS84 Zone 47N.<br>• Topographic locations interpreted from Thai base topography in conjunction with GPS results. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.*<br>*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*<br>*Whether sample compositing has been applied.* | • The drilling was conducted on 3 sections 100 m apart, with two holes on two sections giving down-dip separations of about 70 to 80 m between holes.<br>• Resources or reserves are not being reported.<br>• Sample compositing was not applied |
| **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.*<br>*If the relationship between the drilling orientation and the orientation of key mineralised structures is* | • The sampling of half core and ¼ core supports the unbiased nature of the sampling.<br>• The drill holes reported are drilled approximately normal to the strike of the mineralised dykes. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *considered to have introduced a sampling bias, this should be assessed and reported if material.* | |
| **Sample security** | *The measures taken to ensure sample security.* | • Samples are securely packaged and transported by company personnel to the Thai-Laos border, where ALS laboratory personnel took delivery. Pulp samples for analysis are then air freighted to Vancouver or Perth in accordance with laboratory protocols. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | • No formal audits or reviews have been conducted at this stage of the exploration program. |

## SECTION 2 REPORTING OF EXPLORATION RESULTS

| 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.*<br><br>*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.* | • Three contiguous Special Prospecting Licences (JSPL1, 2 and 3) covering an area of 48 km2 are registered to Thai company Siam Industrial Metals Co. Ltd. (SIM). Pan Asia Metals holds 100% of SIM located 60 km north of Phuket in southern Thailand.<br>• The tenure is secure and there are no known impediments to obtaining a licence to operate, aside from normal considerations. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | • The Institute of Geological Sciences, a precursor of the British Geological Survey (BGS) in the late 1960s conducted geological mapping, documenting old workings, surface geochemical sampling, mill concentrates and tailings sampling and metallurgical test work on the pegmatite then being mined at Reung Kiet. This work appears to be of high quality and is in general agreement with Pan Asia's work.<br>• In 2014, ECR Minerals reported Li results for rock samples collected in Reung Kiet project area. The locations and other details of the samples were not reported but the samples showed elevated Li contents. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | • The project is located in the Western Province of the South-East Asia tin tungsten belt. The Reung project area sits adjacent and sub-parallel to the regionally extensive northeast trending Phang Nga fault. The Cretaceous age Khao Po granite intrudes into Palaeozoic age Phuket Group sediments along the fault zone, Tertiary aged LCT pegmatite dyke swarms intrude parallel to the fault zone. |
| **Drillhole Information** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>  • *easting and northing of the drillhole collar* | • Drillhole information and intersections are reported in tabulated from above. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *elevation or RL (elevation above sea level in metres) of the drillhole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>*hole length.* | |
| **Data aggregation methods** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • Intersections are reported at >0.3% $Li_2O$, and may rarely, allow for internal diliution of <0.3% $Li_2O$. No top cut has been applied.<br>• Higher grade zones within the bulk lower grade zones are reported, where material. |
| **Relationship between mineralisation widths and intercept lengths** | • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • Intercept lengths are reported as downhole length.<br>• The mineralised zones dip around 70 degrees southeast. Holes were drilled at -55 to -60 degrees towards the northwest (normal to strike). The true width of the mineralisation reported is around 75-80% of the reported downhole width. |
| **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.* | • Included in main report. |
| **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.* | • Results are reported for every drillhole. |
| **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* | • The drilling results reported are from holes targeting mineralisation beneath an old open cut. Soil, rock-chip and trench sampling by Pan Asia indicate additional mineralisation is present along trend to the south. Weaker surface lithium anomalism is also present immediately north of the pit. The whole mineralised trend is potentially 1 km or more long.<br>• Garson et al (1969) conducted work on concentrates, tailings and met test-work on a sample taken from the mine. This work was positive with no deleterious substances have been identified to date. |

| Criteria | JORC Code explanation | Commentary |
| --- | --- | --- |
| | *characteristics; potential deleterious or contaminating substances.* | |
| **Further work** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • Planned further work will include drilling especially along strike to the south. Infill drilling is also planned around existing holes that have intersected higher grade mineralisation. This may later lead to deeper/step out drilling should geological controls on higher grade zones be identified. |

# Appendix F JORC Code Table 1 – Reung Kiet and Bang Now Geochemistry

## SECTION 1 SAMPLING TECHNIQUES AND DATA

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| **Sampling techniques** | *Nature and quality of sampling (e.g. 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.* | • Rock-chip, channel and float samples were collected of 1 to 5 kg mass. Most samples are pegmatite which occurs as outcrop, sub-crop, float or in dumps. A few granite and metasediment samples were also collected. Channel-chip samples of outcrops were collected where possible, especially in trenches.<br>• Soil samples are collected from the base of a 20 to 40 cm deep hole dug with a spade. B Horizon samples are generally preferred, with some local C-Horizon samples collected.<br>• Samples were selected in order to ascertain the degree of lithium enrichment and enable geochemical characterisation. As such, the samples are representative of the lithium mineralisation within the immediate sample area collected but may not necessarily represent the composition of the entire pegmatite, with the possible exception of channel-chip samples.<br>• Samples were collected by PAM employed field geologists and/or supervised field assistants, then samples are sent to either ALS Chemex in Brisbane or SGS in Perth for analyses.<br>• Internal QAQC standards, duplicates and blanks were inserted by the laboratory. |
| | *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* | |
| | *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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.* | |
| **Drilling techniques** | *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).* | • No drilling reported in this appendix. |
| **Drill sample recovery** | *Method of recording and assessing core and chip sample recoveries and results assessed.* | • No drilling reported in this appendix. |
| | *Measures taken to maximise sample recovery and ensure representative nature of the samples.* | |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *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.* | |
| 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.*<br>*Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*<br>*The total length and percentage of the relevant intersections logged.* | • Rock-chip and soil samples are not logged but sample type and geological details are recorded.<br>• Soil samples are described and the site characteristics sample type and depth are recorded.<br>• Descriptions are a combination of qualitative and quantitative data. Photographs are taken at most rock sample sites and trenches. Only type photographs are taken for soil sites. |
| **Sub-sampling techniques and sample preparation** | *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>*If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*<br>*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>*Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>*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.*<br>*Whether sample sizes are appropriate to the grain size of the material being sampled.* | • Not applicable, no drilling reported in this appendix.<br>• All samples were dry. No duplicate samples collected.<br>• Laboratory standards, splits and repeats were used for quality control.<br>• The sample preparation technique of fine crush, riffle or rotary split sub-sample, the pulverisation is industry standard and practice for this stage of investigation and style of mineralisation. The laboratory reports particle size analysis for crushed and pulverised samples about every 25 samples.<br>• The sample sizes are considered appropriate for the typically <3mm grain sizes in the aplo-pegmatite. |
| **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.*<br>*For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make* | • The samples were dried, crushed to -3 mm and sub-samples of 500 to 1000 g is riffle or rotary split and then pulverised to 90% passing 75 microns. For SGS samples, preparation is done at an SGS lab in Bangkok. For ALS samples, preparation was completed at ALS in Laos. 100 g -75 micron pulps are dispatched for analysis.<br>• All pulp samples were analysed using a hand held Olympus Delta 400 Premium in Geochem and/or soil mode, with dual beam analysis for 30 seconds each. Rb, K, Mn assays show very good correlation with lab derived lithium analysis. Other elements of interest also exhibit good correlation with lab results. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *and model, reading times, calibrations factors applied and their derivation, etc.*<br>*Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.* | • Samples were digested by either mixed acid digest or sodium peroxide with ICP finish by ALS Chemex in Brisbane for lithium and at times also Sn, Ta and Rb.<br>• Samples sent to ALS were prepared by sodium peroxide fusion or mixed acid digest with ICP-MS finish at SGS in Perth or Vancouver for lithium and sometimes Sn, Ta and Rb.<br>• Internal laboratory standards, splits and repeats were used for quality control. PAM did not insert any QA/QC samples. Although some outcrops have been sampled up to 3 times and could be considered as field duplicates, and lithium results exhibit strong agreement. |
| **Verification of sampling and assaying** | *The verification of significant intersections by either independent or alternative company personnel.*<br>*The use of twinned holes.*<br>*Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>*Discuss any adjustment to assay data.* | • Sample results have been checked by company Senior Geologist.<br>• Assays reported as Excel and secure pdf files.<br>• Data entry carried out both manually and digitally by Geologists. To minimise transcription errors field documentation procedures and database validation are conducted to ensure that field and assay data are merged accurately.<br>• Following factor adjustments applied to assay data for reporting purposes: Li x 2.153 to convert to $Li_2O$. |
| **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.*<br>*Specification of the grid system used.*<br>*Quality and adequacy of topographic control.* | • Sample locations are from hand held GPS, with approximately 2 to 7 m accuracy, sufficient for this type of exploration. For trenches the start and end points are recorded. Sample locations are then measured from the start point using a tape measure.<br>• All locations reported are UTM WGS84 Zone 47N.<br>• Topographic locations interpreted from Thai base topography in conjunction with GPS results. |
| **Data spacing and distribution** | *Data spacing for reporting of Exploration Results.*<br>*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*<br>*Whether sample compositing has been applied.* | • All samples were selected by the geologist to assist with identification of the nature of the mineralisation present at each location. No set sample spacing was used for rock samples, except in channel chips at outcrops and in trenches, where sample widths generally varied between 1 and 3 m. Soil samples are collected along lines at 2 0m spacing, with lines spaced at 100 m or 200 m.<br>• Sample compositing was not applied. |
| **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.*<br>*If the relationship between the drilling orientation and the orientation of key mineralised structures is* | • Channel-chip samples are collected off exposed faces which may not true width information. Trench samples are collected in trenches oriented normal to the known trend. Associated structural measurements and interpretation by geologist can assist in understanding geological context.<br>• All other rock samples are essentially point samples. Soil samples were collected on lines oriented normal to known pegmatite trends. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *considered to have introduced a sampling bias, this should be assessed and reported if material.* | |
| **Sample security** | *The measures taken to ensure sample security.* | • Samples are securely packaged and transported by independent reputable carrier or transported by company personnel to sample preparation and facility. Pulp samples for analysis are air freighted to Australia in accordance with relevant laboratory protocols. |
| **Audits or reviews** | *The results of any audits or reviews of sampling techniques and data.* | • Not conducted at this stage of the exploration program. |

## SECTION 2 REPORTING OF EXPLORATION RESULTS

| 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.*<br><br>*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.* | • Three contiguous Special Prospecting Licences (JSPL1, 2 and 3) covering an area of 48 km2 are registered to Thai company Siam Industrial Metals Co. Ltd. (SIM). Pan Asia Metals holds 100% of SIM located 60 km north of Phuket in southern Thailand.<br>• At the Bang Now project Pan Asia holds a 100% interest in two contiguous Exploration Prospecting Licences covering about 5 $km^2$.<br>• The tenure is secure and there are no known impediments to obtaining a licence to operate, aside from normal considerations. |
| **Exploration done by other parties** | *Acknowledgment and appraisal of exploration by other parties.* | • The Institute of Geological Sciences, a precursor of the British Geological Survey (BGS) in the late 1960s conducted geological mapping, documenting old workings, surface geochemical sampling, mill concentrates and tailings sampling and metallurgical test work on the pegmatite then being mined at Reung Kiet. This work appears to be of high quality and is in general agreement with Pan Asia's work.<br>• In 2014, ECR Minerals reported Li results for rock samples collected in Reung Kiet project area. The locations and other details of the samples were not reported but the samples showed elevated Li contents.There is no previous exploration reported for the Bang Now Project. |
| **Geology** | *Deposit type, geological setting and style of mineralisation.* | • Reported above in Appendix D.<br>• The Bang Now project is located in the NNE trending Ranong Fault Zone. LCT type pegmatites viens and dykes intrude Palaeozoic aged metasediments. |
| **Drillhole Information** | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*<br>  • *easting and northing of the drillhole collar* | • Reported above in Appendix D.<br>• There is no drilling reported at the Bang Now project. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | • *elevation or RL (elevation above sea level in metres) of the drillhole collar*<br>• *dip and azimuth of the hole*<br>• *down hole length and interception depth*<br>*hole length.* | |
| **Data aggregation methods** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* | • Drilling is not being reported. Other data not applicable to sample type and methods reported.<br>• Where average grades are reported the lower cut-off grade and number of samples above and below cut-off are reported. |
| **Relationship between mineralisation widths and intercept lengths** | • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').* | • Not applicable, rock chip sample results reported as individual surface samples collected from float sub-crop or exposed faces. For channel samples relationship between sample width and true width varies. |
| **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.* | • Included in main report. |
| **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.* | • Results of assays of all samples collected are reported as appropriate in the text or on plans and sections. |
| **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* | • Reconnaissance diamond drilling has since been conducted at Reung Kiet targeting the pegmatite beneath the old pit. Pegmatite with variable lithium grades was intersected in all holes. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | *characteristics; potential deleterious or contaminating substances.* | |
| **Further work** | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* | • It is envisaged that further mapping and sampling is warranted to investigate potential additional lithium pegmatites. Drilling to test extensions at depth and along strike is also planned.<br>• Appropriate diagrams appear in the report. |

**RME** RANGOTT MINERAL EXPLORATION PTY. LTD.

GEOLOGICAL & EXPLORATION CONSULTANTS
(A.B.N. 36 002 536 825)

TELEPHONE (02) 63 625155
FAX (02) 63 631324
MOB 0428-650 761

3 BARRETT STREET
(P.O. BOX 1141)
ORANGE, NSW. 2800

1st July, 2020.

The Directors,
Pan Asia Metals Limited,
Level 3, 8 Robinson Road,
(ASO Building),
Singapore, 048544.

Dear Sirs,

**INDEPENDENT GEOLOGISTS' REPORT ON EL8811 "MINTER", NSW**

Please find below our Independent Geologists' Report on the Minter exploration licence, which is located in central NSW. This report was compiled from numerous statutory company reports and published government reports, including reports compiled by and on behalf of Cullen Exploration Pty Ltd, who carried out the majority of modern exploration work on the licence area during the period 2006 to 2017.

This report was prepared in compliance with the JORC Code 2012 for exploration reporting and with the Valmin Code 2015 and with the ASX listing Rules and Guidelines. It summarises open-file exploration data generated by all companies which have carried out exploration work on the subject area, and is intended for inclusion in an Initial Public Offering of shares in Pan Asia Metals Limited.

The data was reviewed and the report prepared by Maxel Franz Rangott who has a B.Sc. from The University of Sydney (1968) and is a Director and Principal Geologist of Rangott Mineral Exploration Pty Ltd ('RME'), ABN 36 002 536 825 whose registered address is 27 Sale Street, Orange NSW, 2800. The author has approximately 50 years experience in mineral exploration and mining in Australia, including more than 5 years working in exploration for tin and tungsten, and meets the JORC Code's definition of a Competent Person with respect to tin and tungsten exploration.

Maxel Rangott has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activites being undertaken 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'. Maxel Rangott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.'

The exploration results in this report are based on, and fairly represent, information and supporting documentation prepared by Maxel Rangott who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists.

The author prepared the report as an impartial assessment of past exploration work on the subject area and the exploration results, and of the resultant prospectivity for delineating tungsten resources within that area. The author discloses that he initiated and carried out the initial exploration work on the Minter prospect for the Electrolytic Zinc Company of Australia Ltd, and later worked on Cullen Exploration Pty Ltd's exploration for approximately 10 years as a consultant and service provider.

For preparing this report, the author accessed open-file reports on the Geological Survey of NSW's DIGS database, hard copy and digital reports and documents prepared by Rangott Mineral Exploration Pty Ltd on behalf of Cullen Exploration Pty Ltd, and on limited data provided by Pan Asia Metals Limited. He did not make a site visit specifically related to this report, but frequently worked on the prospect for EZ and Cullen in past years.

The author, contributors or related parties do not hold any interest in Pan Asia, their associated parties, or in any of Pan Asia's mineral properties described in this report. Fees for the preparation of this report will be charged at RME's standard rates, with any expenses reimbursed at cost. The payment of fees and expenses is not contingent upon the conclusions drawn in this report. RME has not had any material prior association with Pan Asia.

Drill hole collar data and material tungsten intersections (>500ppm $WO_3$) are presented in Appendix I, and a JORC Table 1 in Appendix II.

## INTRODUCTION

Exploration Licence no. 8811, which covers 50 graticular units (an area of approximately 148.5 square kilometres), was granted to Pan Asia Metals (Aus) Pty Limited, for Group 1 Minerals (metallic ores). It is centred 15 kilometres southeast of the township of Lake Cargelligo (Figure 2), and was granted on 14th December, 2018, for an initial 4 year term. An independent tenement report was prepared recently, and is included in Section 18 of the Prospectus.

EL8811 is situated in a broad-acre cereal cropping and sheep and cattle-grazing region, with scattered areas of remnant scrublands and reserved State Forest, which are dominated by thick stands of Cypress Pines. The country is gently undulating, varying from 190 to 250 metres above sea level, and the climate is semi arid, with a slight winter maximum rainfall.

The town of Lake Cargelligo, which is situated on an anabranch of the Lachlan River, provides a small shopping centre, and most community services.

## GEOLOGICAL SETTING

EL8811 is located within the central portion of the Lachlan Orogen (the “Lachlan Fold Belt”), a major crustal unit with rocks ranging in age from Cambrian to late Tertiary. It includes the broadly-defined “Wagga Tin Belt” (Figure 1), which extends 700kms from northeastern Victoria on the western side of the Gilmore Suture, and which is roughly 100 kilometres wide in the vicinity of the licence area. The Wagga Tin Belt (WTB) is comprised of early to middle Ordovician turbiditic metasediments of the Wagga Group, which are intruded by early to middle Silurian high-potassium S-type granites of the Koetong Suite. Numerous tin, tin-tungsten, tungsten and gold occurrences, with rare accessory tantalum are associated with these granite intrusions, over the length of the belt.

Within the WTB, the Minter area sits midway between the productive Gibsonvale and Tallebung tin fields, and is located 110 kilometres north-northwest of the substantial Ardlethan tin field.

EL8811 covers a low north-south oriented topographic ridge, comprised of hornfelsed, dominantly psammitic rocks of the Clements Formation, which is the main stratigraphic unit of the Wagga Group (Figure 2). To the immediate southeast of the licence area, the batholith of the Kikoira Granite (part of the Koetong Suite) a strongly fractionated S-type granite has been mapped for 35 kilometres to the south, and from early drilling around the Minter prospect, it is known that a greisenous contact phase of the granite extends several kilometres in to the licence, sub-cropping beneath transported soils. At Scheelite Hill, 9 kilometres north of the southern boundary of the licence, a low hill of fine-grained mineralised adamellite, is believed to be a small cupola protruding up from the granite through the metasediments, and surrounded on its eastern side by strongly tourmalinised and silicified hornfelsed psammites. Given the hornfelsed and locally altered nature of the Clements Formation of the rocks within the licence area, the Kikoira Granite is believed to extend as a “granite ridge” along and to well to the north of the licence area, probably occupying an apical position within a broad anticline within the formation.

Along the southwestern margin of the granite, numerous tin and gold occurrences within greisenised granite and adjacent metasediments have been prospected, and there was substantial production of tin from palaeochannels in the Gibsonvale and Kikoira deep leads. At Gibsonvale, tin bearing veins in the Clements Formation strike northwesterly. This focus of mineralisation along the western margin of the granite body (as also seems to be the case at the Minter Prospect) suggests that it dips at a moderate angle to the west, such that during the late stages of crystallisation of the melt, volatiles concentrated along the upper contact of the granite with the metasediments, and crystallised to form mineralised alteration systems and veins in both the granite and the metasediments.

To the southeast of the licence area, and to the west of Lake Cargelligo, extensive areas of the Palaeozoic bedrock are overlain by volcanic deposits of olivine leucitite, the Tullibigeal Leucitite, a silica-undersaturated basalt or lamprophyre, dated at 9.5 to 15 million years old (mid to late Miocene). Deposits of lacustrine magnesite and bentonite are associated with weathered leucitities near Lake Cargelligo. Although they have no genetic relationship with the tin, tungsten and gold deposits, the distribution of their extrusive centres lie within a northwest-trending corridor, a structural direction which also appears to control many of the tin and tungsten bodies.

## PRIOR EXPLORATION ACTIVITIES and RESULTS

### Work by EZ and Aberfoyle

Tin mineralisation was discovered near Burgooney in 1977 when the Electrolytic Zinc Company of Australasia Ltd ("EZ") was invited by a landholder to examine a cluster of small historic gold workings 1.2 kilometres south-southwest of Minter Trig. Cassiterite was noted in some of the float, and the samples of gossan bands and vein quartz when assayed contained anomalous gold and up to 18.8% tin and 0.04% $WO_3$. EZ applied for an exploration licence, which was granted in 1978 as EL1082, and then carried out further rock chip sampling which gave up to 2.54% tin, 2,150ppm copper, 4.78% arsenic, 4.30% lead, and 0.10% $WO_3$, soil sampling, and grid-based auger and open hole rotary air blast (RAB) drilling, the latter intended both to obtain bedrock geochemical samples and to delineate possible alluvium-filled palaeochannels draining off the low range of hills. One clay filled palaeochannel was located but it contained very little alluvial tin; however, strongly greisen-altered granite was found in a traverse to the northeast of the old workings (but no tin). Bottom hole samples from the hard-rock grid drilling gave up to 3,400ppm tin and 1,100ppm arsenic, but the highly anomalous values were patchy.

EL1082 was then placed in a joint venture with Aberfoyle Exploration Pty Ltd, who had started exploring for tin in a band of Silurian acid volcanics between Ardlethan and Burgooney. Their parent company also owned the major Ardlethan Tin Mine. Aberfoyle drilled two open percussion holes (MP-P1 and MP-P2) to 120 metres depth across the hard-rock geochemical anomaly. The holes passed through hornfelsed and quartz-veined Ordovician metasediments with scattered leucocratic granite dykes, and MP-P2 intersected unaltered and un-mineralised Kikoira Granite from 90 to 120 metres. Tin and Tungsten values were generally low (maximum 310ppm tin and 0.06% $WO_3$ in the metasediments). Aberfoyle considered that no further work was warranted at the prospect.

Aberfoyle and EZ applied for an additional exploration licence (EL1380) to the north of the Minter prospect and Aberfoyle undertook regional mapping and rock chip sampling, and discovered tungsten (and subordinate tin) mineralisation at Minter North (subsequently named Scheelite Hill) and around a small farm road-base pit at the "Doyenwae" property, and close to the Orr Trig Station.

Aberfoyle used an exploration target model, later slightly refined by Cullen Exploration and the Geological Survey of NSW, which postulated that W ± Sn mineralisation in the district was developed within or above a series of structurally-controlled cupolae of evolved granite developed along the granite ridge, at increasing depths to the north (Figure 3). This model was based on the geological setting of a series of tin-tungsten deposits in southern China, and was known as the 'Chinese Tin-Tungsten Model', with a target size of 20 million tonnes @ a grade of 0.5% $WO_3$. Other deposits which can be used as examples of the target being sought at the time include Hemerdon in the United Kingdom, Panasqueira in Portugal and Chicote Grande in Bolivia.

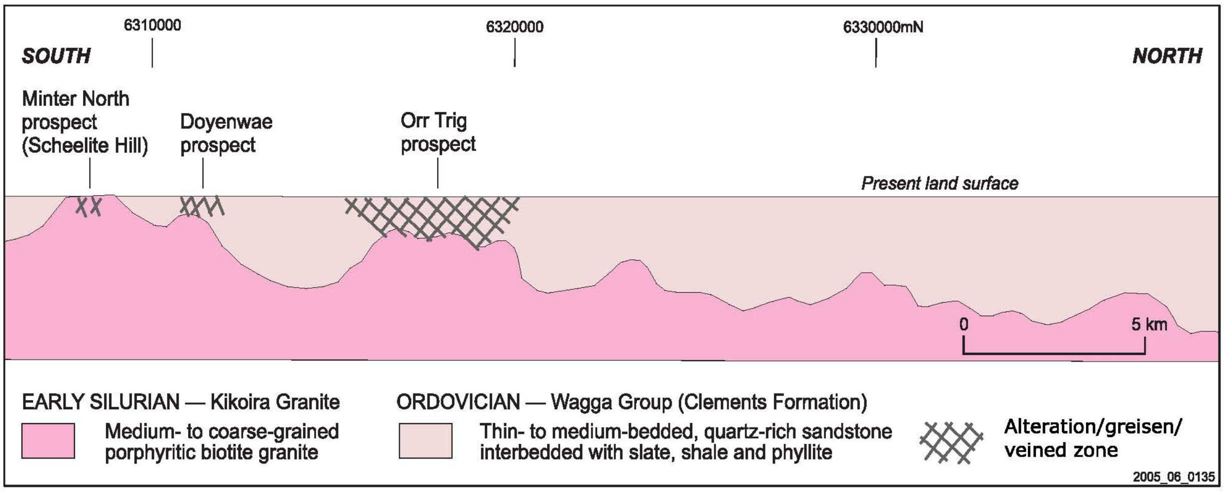


Figure 3 'Chinese Sn-W Model' applied to tungsten +/- tin exploration in the Minter area

Based on the geology of the Rossarden district in Tasmania, the envelope of the vein systems may sit tangential to steeply sloping margins of the cupolae.

Aberfoyle noted the presence of magnetic lows in the regional aeromagnetic data, which they interpreted as responses to blind cupolae on top of the granite ridge. Given the low percentage of outcrop, they drilled a number of wide-spaced vertical open RAB holes at both the Doyenwae and Orr Trig prospects. Although the holes were not optimally oriented (i.e. they were drilled vertical) and wide spaced, they obtained a number of long >500ppm $WO_3$ intersections, which broadly outlined extensive tungsten anomalies. Aberfoyle then drilled 14 open percussion holes over and around Scheelite Hill, 12 vertical open percussion holes around the Doyenwae prospect (to 100-120 metres depth) and 5 at Orr Trig.

The best percussion hole at Scheelite Hill (MN-P02) gave 52.5 metres at 0.1% $WO_3$. At Doyenwae, quartz veining and tungsten mineralisation was widespread, and better grades were obtained. 8 holes were strongly W-anomalous throughout, e.g. PD10 averaged 0.07% $WO_3$ over 101.5 metres; 62% of all drill samples assayed >250ppm $WO_3$ and 10% gave from 0.1% to 0.76% $WO_3$. No intrusive rocks were intersected but reported weak to moderate sericite-clay-muscovite-biotite-tourmaline alteration (i.e. weak greisen development) of the metasediments infers that a prospective cupola may be present at a reasonable depth.

**Table 1** - tungstic oxide intersections from selected Aberfoyle holes at Doyenwae

| | | |
|---|---|---|
| PDH 1 | 12m @ | 0.19% $WO_3$ from 96m (primary scheelite-pyrite) |
| PDH 2 | 40.5m @ | 0.13% $WO_3$ from 95m (primary scheelite-pyrite) |
| PDH 5 | 33m @ | 0.10% $WO_3$ from 54m |
| PDH 8 | 6m @ | 0.30% $WO_3$ from 85.5m |
| PDH 10 | 27m @ | 0.17% $WO_3$ from 1.5m (oxidised secondary) |

At Orr Trig, 5 angled open percussion holes (PDH13 to PDH17) each drilled to 81 metres depth intersected limonite-tungsten bearing quartz veins. The best intersections were made by PDH14 drilled away from the margin of 'The Island' (see Figure 5) a low scrubby rise within the wheat paddock - 0.0 - 7.5 metres at 0.17% $WO_3$ and 28.5 - 81.0 metres @ 0.05% $WO_3$ (maximum 9.0 metres at 0.12% $WO_3$).

**Work by Cullen Exploration Pty Ltd**

Cullen held the broader Minter area from 2004 to 2017, and carried out an exploration programme targeting gold and tungsten. They initially undertook detailed work for Intrusion Related Gold Mineralisation ("IRG") during the period 2004-2006, under EL6257. The Chinese Tin-Tungsten model was recognised as central to their exploration for IRG mineralisation. The gold exploration did not produce drill-ready targets, and Cullen re-applied for the broader prospect area and their EL6572 was granted on 11th June, 2006, which they held until June, 2017.

Cullen carried out a 'double-offset pole-dipole' Induced Polarisation survey over the immediate Doyenwae prospect area, to delineate zones of elevated sulphide mineral content associated with tungsten mineralisation and resistivity highs associated with a deeper cupola. The results were inconclusive with regard to those objectives.

Cullen then drilled 4 inclined R/C percussion holes, DRC-001 to 004, to test a variety of geological and geophysical targets (weak chargeability anomalies). All four holes (see Figure 6 and Appendix I) intersected wide zones of anomalous tungsten associated with weakly sulphidic quartz veining. In particular, hole DRC-001 drilled towards grid east towards the road-base pit and beneath Aberfoyle's PDH2, intersected variable vein quartz (up to an estimated 20%) and below 91m (the base of complete oxidation) up to 7% sulphides. The abundant sandstone beds which hosted the veins were commonly silicified, and often contained fine hydrothermal biotite and tourmaline. The best intersection was 129 - 135 metres downhole - 6 metres at 0.29% $WO_3$, including 1 metre @ 1.29% $WO_3$

None of the holes intersected the postulated cupola, but the strong alteration assemblage is likely to be indicative of proximity to a significant intrusive body. A narrow, clay-altered quartz-porphyry dyke, with associated coarse scheelite, was intersected in DRC-001.

In a further attempt to delineate cupola bodies at depth, Cullen commissioned an ultra-detailed ground magnetic survey covering a 3 kilometres wide area from Scheelite Hill to 2.5 kilometres north of the Doyenwae road-base pit, a total strike length of 8 kilometres. This delineated two magnetically very quiet areas - one coincident with the Doyenwae prospect and a second one 1.5 kilometres to the north. These features could be interpreted as reflecting phyllically-altered cupolae at depth. Significantly, they are apparently constrained by sub-vertical northwest and east-west trending structures.

Cullen then undertook a programme of shallow (maximum length 43 metres) aircore and reverse circulation percussion holes, numbered DAC-001 to DAC-041, (see Figure 6 and Appendix I) over the northwestern quarter of the southern magnetic low. In keeping with the postulated north-south trend of the granite and known tungsten anomalies, these holes were drilled at -50° towards grid east. Broad intervals of >500ppm tungsten were made in half of the holes, with a peak value of 0.87% $WO_3$ obtained from 6-8m in hole DAC-006 in the broad soil-covered area in the northern part of the drilled area, Petrological work indicated that a possible degraded quartz-porphyry dyke was intersected in the interval 11-14 metres down hole.

The southernmost two lines of holes were drilled over the subcropping / outcropping veined metasediment exposed in the very shallow road-base pit, but interestingly the tungsten values from the holes drilled within the boundaries of the pit were quite subdued. A drill section for the line drilled across the northern end of the pit is included herewith as Figure 7 to illustrate the extent of anomalous tungsten in the 2 metre samples. Note the poor results from holes DAC-040 and 041.

The intervals of >500ppm tungsten were interpreted to dip to the west, and correlation of the intervals between the 6 lines of drillholes resulted in a tenuous correlation of north-northeast trending mineralised bands.

The DAC holes were drilled within almost totally oxidised Ordovician metasediments, and ultraviolet logging of the washed reference chip samples found only scattered small grains of scheelite, and no wolframite was seen.

Petrological studies were done on a selection of reference chip samples, and a mineragraphic / deportment study on a second set of chips which were strongly anomalous in tungsten, at AMDEL in Adelaide. Tourmaline-greisen alteration was noted by the petrologist in several samples, and the deportment study identified only very small quantities of the common tungstate minerals scheelite and ferberite (wolframite). The study concluded that the bulk of the tungsten was present in amorphous secondary iron and titanium oxides. It is likely that the tungsten could be recovered from these essentially laterite assemblages via a hydrometallurgical process.

Cullen decided to define the centres of mineralisation along approximately 15 kilometre of the hornfels ridge using systematic soil sampling. After an orientation study a coarse (-8 +20 mesh Tyler) fraction was used to sieve the samples, which were collected at spacings ranging from 500 x 50 metres down to 50 x 25 metres in the Doyenwae, Doyenwae North and Orr Trig areas. An ICP-MS analytical technique was used on the samples.

The sampling outlined robust tungsten anomalies (with much lower tin values) over a 1,000 metre by 800 metre area at the Doyenwae prospect (Figure 4) and over a 1,200 metre by 1,300 metre area at the Orr Trig prospect (Figure 5). As well, a “tail” of moderately anomalous tungsten values extends to 1,800 metres south of the Orr Trig prospect.

At Doyenwae, the maximum values were 0.11% $WO_3$, 32ppm tin and arsenic 105ppm. At Orr Trig, tungsten values ranged up to 0.12% $WO_3$, tin to 39ppm and arsenic to 339ppm, consistent with a greater depth to the granite. Between the Orr Trig ‘tail’ and Doyenwae, and south almost to Scheelite Hill, most metal values were very low, with the validity of the results commonly affected by dilution by aeolian sand and sheet-wash alluvium cover. Rock chip samples collected in the Orr Trig area, including at “The Island” gave strongly anomalous tungsten and local tin values.

A detailed gravity survey was conducted over broader Doyenwae prospect area, and it outlined two highs (contrary to expectations) which appear to be bound by northwesterly-trending structures. The highs closely reflect the topographic contours of the area, so the results have been discounted.

Detailed geological mapping of the Orr Trig area by an external consultant defined a tight anticline structure in the main outcrop area, with areas of the strongest alteration located along the axis of the structure.

In the Trigalong prospect area (Figure 2), a small number of rock chip samples of spoil from old prospecting pits and Clements Formation outcrops nearby, gave up to 599ppm arsenic, 30ppm tungsten, 23ppm tin, 23ppm antimony and 12ppb gold (in separate samples) indicating that the hydrothermal system extended in to that area, but with the source of the fluids deeper than at Orr Trig, consistent with the model.

In mid-2012, Cullen decided to drill several geochemical / geological targets at Doyenwae and Orr Trig. The two holes at Doyenwae were the first to test the vein stockwork system at depth. In line with the accepted model, it was assumed that the dominant mineralised veins would strike approximately north-south, parallel to the postulated granite ridge (with its surface expression in the north-south chain of geochemical anomalies) the three holes were drilled towards grid-east.

At Doyenwae, reverse-circulation percussion hole **MRC-005** (Figure 6) was collared in the centre of the tungsten soil anomaly, and drilled at -55°, to a total depth of 111 metres. >100ppm tungsten values were outlined throughout the entire hole (Figure 8), and the best intervals were 74 - 76m, 2 metres @ 0.33% $WO_3$, 54ppm tin and 244ppm arsenic; 92 - 94 metres, 2 metres @ 0.14% $WO_3$, 45ppm tin and 51ppm arsenic; and 108 - 110 metres, 2 metres @ 0.45% $WO_3$, 63ppm tin and 64ppm arsenic.

Diamond core hole **CMD-001** (Figure 6), was collared to the east of the earlier hole DRC-001 and close to Aberfoyle's hole PDH-002, and drilled at -55° beneath the southernmost line of shallow aircore holes (DC-020 to DAC-025, and DAC-035), to a total depth of 258 metres. The hole passed through a sequence of interbedded thinly-bedded siltstones and sandstones (with occasional beds of silicified sandstone up to 60cms thick), and quartz veining over the length of the hole. Oriented core shows that the bedding dips very steeply to the east and strikes north-south, however, a major proportion of the mineralised veins strike west-northwest and dip steeply to the northeast, i.e. the hole was drilled sub-parallel to most of the mineralised veins.

The vein assemblages include quartz, quartz-scheelite, quartz-pyrite ± arsenopyrite ± pyrrhotite ± galena ± scheelite ± cassiterite, and quartz-limonite, with green fluorite noted in some quartz veins. The assay intersections are shown on Figure 9, and include several >1% tungsten intervals deeper in the hole (e.g. 1.4 metres @ 1.37% $WO_3$). Of the 258m drilled, a total 102.5m of the core was sampled, and gave a weighted average grade of 0.12% $WO_3$. Sampling of additional intervals is warranted.

At Orr Trig, diamond core hole **CMD-002**, was collared in the soil tungsten anomaly on the western scree slope of the Trig Station ridge (see Figure 10) and drilled at -50° to a total depth of 267.8 metres.

The hole passed through abundant quartz vein stockworks in thicker beds of silicified sandstone, carrying pyrite, carbonate minerals, arsenopyrite, scheelite and pyrrhotite and in thick planar beds of sandstone dipping at a shallow angle to the west. The quartz veining is both more intense and more complex than that in hole CMD-001, and contains a higher proportion of carbonate minerals. Scheelite predominantly occurs in quartz veins along with pyrite, arsenopyrite, carbonates and iron-poor tourmaline. 161 half-core samples were assayed, and the best result was 1 metre at 1.53% $WO_3$, and scattered narrow intervals gave 0.1% to 0.8% $WO_3$. The uppermost section of the hole, beneath the strong soil tungsten anomaly, gave generally low values. This may indicate that the anomaly on the scree slope has formed from downslope mechanical concentration of mineralised rock fragments during prolonged erosion of the landscape during the Pleistocene era.

As a general comment, the tungsten values were significantly higher in the two Doyenwae holes, whilst the arsenic values are significantly higher and the tin values slightly higher in the Orr Trig hole. Although this observation is based on a very limited number of holes (if not samples), it is consistent with the metal zonations expected with the source cupolae becoming deeper from the south to north.

As a result of the vein orientations measured in hole CMD-001, Cullen decided to carry out detailed structural mapping of the bedrock exposed in the road-base pit at the centre of the Doyenwae prospect (see Figures 4 and 6). Where accessible, the hard-rock floor of the pit was cleaned down using a high-pressure water hose and a yard broom, and an area measuring approximately 150 metres by 30-50 metres was mapped, and rock chip samples taken from selected sections of veins. Even with those preparations, the level of exposure in the floor of the pit was only 5-10%. It was found that roughly 90% of the mineralised veins strike (i.e. trend) west-northwesterly. The assay values from analysis of the rock samples ranged from 320ppm to 6,470ppm for tungsten (0.82% $WO_3$), from 2.5ppm to 195ppm for tin, and from 19ppm to 1,030ppm for arsenic.

As well as in the north-northwesterly trending veins, mineralisation was noted in subordinate short cross-cutting veins and veins which tend to follow bedding (mainly in silicified sandstone beds). The silicified sandstone is also locally mineralised, and minor quantities of pyrite and arsenopyrite were noted up to 3 metres away from north-northwesterly trending veins.

A number of un-mineralised quartz veins were mapped and are believed to pre-date the mineralised quartz veins; these include short sigmoidal east-west trending veins of grey quartz, and a massive 2-5 metres wide, north-south trending quartz vein which was mapped over 160 metres of strike.

Although only a minor percentage of the quarry floor was exposed, the mapping clearly showed that the dominant trend of the mineralised veins was west-northwesterly.

**SUMMARY and OBSERVATIONS**

Previous mineral exploration and work by the Geological Survey of NSW over the past 40 years has recorded metallic mineralisation associated with the Kikoira Granite, over a strike length of at least 60 kilometres (Figure 2). There is a general zonation from gold around the southern extremity of the granite, tin ± gold in the Kikoira area, tin ± gold at the Minter prospect, and tungsten with minor tin from Scheelite Hill to the Trigalong area. The Gibsonvale and Kikoira deep leads were significant producers of alluvial tin, with the source believed to be mineralised sheeted quartz veins and greisen development along the western contact of the granite with the Clements Formation sediments.

Exploration results generated by Aberfoyle Exploration and Cullen Exploration have validated their use of the ‘Chinese Tin-Tungsten Model’ in guiding exploration and interpreting their data.

Semi-regional and local detailed soil sampling by Cullen delineated two robust tungsten anomalies, at the Doyenwae and Orr Trig prospects, and these anomalies are believed to be developed from the erosion of sheeted mineralised veins located above or marginal to cupolae of a fractionated phase of the Kikoira Granite. Additional centres of tungsten mineralisation may exist under recent cover between Doyenwae and Orr Trig, and between Scheelite Hill and Doyenwae.

A limited Induced Polarisation (IP) geophysical survey by Cullen at Doyenwae produced uncertain results. Given the local high levels of sulphides (pyrite ± pyrrhotite ± galena) associated with tungsten minerals, encountered in subsequent drilling below the base of oxidation, future exploration should review the existing IP and drillhole data to select an IP technique and array which should better delineate zones of sulphidic mineralisation at depth.

Cullen carried out a long-term detailed programme of exploration, including shallow air drilling and limited deep drilling. However, by strictly adhering to the model and assuming that mineralised vein systems would strike approximately north-south parallel to the granite ridge, they (and previous explorers) drilled before the structural controls on the mineralisation were understood. As a result, all of their drilling appears to have been oriented at a low angle to the probable strike of vein systems in the Doyenwae - Orr Trig area. Although they intersected broad zones of tungsten mineralisation at Doyenwae, it was not possible to estimate widths and concentrations of the veins in the host metasediments.

This has created an opportunity for Pan Asia Metals to properly test the vein systems at Doyenwae, by initially drilling one or two fences of holes in a general southerly direction, from just north of Cullen’s northernmost shallow drill traverses (holes DAC-001 to DAC-004) to about 50 metres south of the road-base pit (Figure 6). A programme of this nature would provide grade and width information on the clusters of west-northwesterly trending veins which are believed to exist in the bedrock.

There are indications in the various sets of drilling data that the tungsten grade at Doyenwae may increase with depth, another factor which should influence the planning of drilling programmes in the future.

At Orr Trig, there are indications that the source cupolae or granite lies at greater depth than at Doyenwae. This may mean that overall tungsten grade will be lower there than at Doyenwae. However, most of the historic drilling was inappropriately oriented. There are also indications that the mineralisation at Orr Trig is also resident in a west-northwest trending structural corridor. Soil and scree cover is dominant over the geochemical anomaly, but an area of subcropping quartz veins, locally mineralised, exists at “The Island” (Figure 10) within the postulated west-northwesterly trending corridor, and an adjacent Aberfoyle percussion hole, PD-014, obtained broad tungsten intersections.

**Table 2** - Summary of all drilling at the Minter prospect area.

| Operator | Hole type | Number of holes | Total metres | Average depth (m) |
|---|---|---|---|---|
| EZ/Aberfoyle | RAB | 377 | 4053 | 11 |
| EZ/Aberfoyle | RC/P | 38 | 3406 | 90 |
| Cullen | AC/RC | 41 | 1262 | 31 |
| Cullen | RC | 5 | 684 | 137 |
| Cullen | DD | 2 | 522 | 261 |
| **Total** | **ALL** | **463** | **9927** | **21** |

Signed:

Maxel Franz Rangott

1st July, 2020.

**REFERENCES**

Reports submitted by the Electrolytic Zinc Company of Australasia Ltd:

EL1082 - six monthly reports to 29/9/1978 and 29/3/1979

Reports submitted by Aberfoyle Exploration Pty Ltd:

EL1082 - six monthly report to 29/9/1979

ELs 1082 & 1380 - six monthly reports to 29/9/1980, 29/3/1981, 29/9/1981, 19/3/1982

EL1082 - final report to 28/3/1982

ELs 1380 & 1937 - six monthly report to 11/1/1983
- final report to 11/1/1984

Reports submitted by Cullen Exploration Pty Ltd:

EL6257 - 1st annual report to 15/6/2005

EL6572 - annual reports to 15/8/2007, through to 12/6/2017 and final report (total 11 reports)

Report prepared for Cullen Exploration Pty Ltd:

EL6572 - Report on Doyenwae Quarry Mapping Project

Geological Survey of NSW - Cargelligo 1:250,000 Geological Sheet Notes, 2005.

**Independent Geologist's Report on**
**EL8811 "Minter", NSW**

# APPENDIX I

Historic Drill Hole Compilation Table

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Compan y | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| DAC001 | 455747 | 6311306 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC002 | 455727 | 6311310 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC003 | 455707 | 6311314 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC004 | 455690 | 6311317 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC005 | 455738 | 6311257 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC006 | 455718 | 6311261 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC007 | 455698 | 6311265 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC008 | 455680 | 6311268 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC009 | 455728 | 6311206 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC010 | 455708 | 6311210 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC011 | 455688 | 6311214 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC012 | 455669 | 6311218 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC013 | 455631 | 6311087 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC014 | 455613 | 6311088 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC015 | 455593 | 6311089 | -50 | 91.5 | 33 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC016 | 455575 | 6311093 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC017 | 455555 | 6311097 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC018 | 455534 | 6311101 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC019 | 455514 | 6311104 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC020 | 455598 | 6310982 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC021 | 455579 | 6310985 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC022 | 455562 | 6310990 | -50 | 91.5 | 33 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC023 | 455541 | 6310995 | -50 | 91.5 | 43 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC024 | 455522 | 6310998 | -50 | 91.5 | 32 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC025 | 455503 | 6311003 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC026 | 455484 | 6311007 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC027 | 455465 | 6311011 | -50 | 91.5 | 33 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC028 | 455444 | 6311016 | -50 | 91.5 | 33 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC029 | 455425 | 6311022 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC030 | 455810 | 6311046 | -50 | 91.5 | 33 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC031 | 455790 | 6311050 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC032 | 455770 | 6311054 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC033 | 455657 | 6310973 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC034 | 455637 | 6310973 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC035 | 455617 | 6310978 | -50 | 91.5 | 32 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC036 | 455750 | 6311058 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC037 | 455730 | 6311062 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC038 | 455716 | 6311073 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC039 | 455696 | 6311069 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC040 | 455676 | 6311073 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| DAC041 | 455656 | 6311077 | -50 | 91.5 | 30 | Cullen | Doyenwae | 2008 | Aircore/RC |
| MRC005 | 455919 | 6311235 | -55 | 90 | 111 | Cullen | Minter | 2012 | Reverse Circulation |
| DRC001 | 455396 | 6311023 | -60 | 89 | 214 | Cullen | *Doyenwae* | 2006 | Reverse Circulation |
| DRC002 | 455961 | 6311250 | -60 | 89 | 140 | Cullen | *Doyenwae* | 2006 | Reverse Circulation |
| DRC003 | 455548 | 6311483 | -60 | 89 | 120 | Cullen | *Doyenwae* | 2006 | Reverse Circulation |
| DRC004 | 455566 | 6311193 | -60 | 89 | 180 | Cullen | *Doyenwae* | 2006 | Reverse Circulation |
| CMD001 | 455598 | 6311188 | -55 | 90 | 258 | Cullen | *Doyenwae* | 2012 | Diamond Core |
| CMD002 | 456112 | 6316919 | -50 | 83 | 264 | Cullen | Orr Trig | 2012 | Diamond Core |
| MN-P01 | 457761 | 6307751 | -60 | 270 | 120 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P02 | 457618 | 6307789 | -60 | 90 | 120 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Company | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| MN-P03 | 457472 | 6307890 | -90 | 0 | 36 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P04 | 457170 | 6307960 | -90 | 0 | 45 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P05 | 457072 | 6307508 | -90 | 0 | 12 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P06 | 457385 | 6307438 | -90 | 0 | 12 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P07 | 457699 | 6307371 | -90 | 0 | 55.5 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P08 | 457959 | 6307804 | -90 | 0 | 67.5 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P09 | 457584 | 6308390 | -90 | 0 | 108 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P10 | 457523 | 6307846 | -60 | 90 | 120 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P11 | 457053 | 6308556 | -60 | 235 | 109.5 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P12 | 457898 | 6308319 | -90 | 0 | 42 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P13 | 457605 | 6306890 | -90 | 0 | 54 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P14 | 457500 | 6306912 | -90 | 0 | 82.5 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P16 | 457750 | 6305893 | -90 | 0 | 24 | Aberfoyle | Minter North - Burgooney | 1980 | Percussion |
| MN-P24 | 457658 | 6307949 | -60 | 160 | 100.2 | Aberfoyle | Minter North - Burgooney | 1981 | Percussion |
| MN-P25 | 457698 | 6307615 | -60 | 340 | 211.5 | Aberfoyle | Minter North - Burgooney | 1981 | Percussion |
| MP-P01 | 457833 | 6302553 | -60 | 35 | 120 | Aberfoyle | Minter | 1980 | Percussion |
| MP-P02 | 457903 | 6302611 | -60 | 35 | 120 | Aberfoyle | Minter | 1980 | Percussion |
| MR-P01 | 457531 | 6300989 | -90 | 0 | 60 | Aberfoyle | A3 Magnetic Zone - Minter (South) | 1980 | Percussion |
| MR-P02 | 460899 | 6303150 | -90 | 0 | 34.5 | Aberfoyle | | 1980 | Percussion |
| PDH01 | 455543 | 6311211 | -90 | 0 | 105 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH02 | 455636 | 6311195 | -90 | 0 | 121.5 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH03 | 455738 | 6311178 | -90 | 0 | 122 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH04 | 455664 | 6311392 | -90 | 0 | 121.5 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH05 | 455770 | 6311377 | -90 | 0 | 120 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH06 | 455873 | 6311354 | -90 | 0 | 120 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH07 | 455972 | 6311339 | -90 | 0 | 100.5 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH08 | 455706 | 6311288 | -90 | 0 | 120 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH09 | 455902 | 6311253 | -90 | 0 | 111 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH10 | 455838 | 6311469 | -90 | 0 | 100 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH11 | 455887 | 6311529 | -90 | 0 | 105 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH12 | 455995 | 6311527 | -90 | 0 | 100.5 | Aberfoyle | Doyenwae - Burgooney | 1982 | Percussion |
| PDH13 | 456243 | 6317085 | -60 | 270 | 81 | Aberfoyle | Orr Trig - Burgooney | 1983 | Percussion |
| PDH14 | 455782 | 6316823 | -60 | 90 | 81 | Aberfoyle | Orr Trig - Burgooney | 1983 | Percussion |
| PDH15 | 456385 | 6317073 | -60 | 270 | 81 | Aberfoyle | Orr Trig - Burgooney | 1983 | Percussion |
| PDH16 | 456539 | 6317058 | -60 | 270 | 81 | Aberfoyle | Orr Trig - Burgooney | 1983 | Percussion |
| PDH17 | 456855 | 6317104 | -60 | 270 | 81 | Aberfoyle | Orr Trig - Burgooney | 1983 | Percussion |
| MN-P15 | 457184 | 6306984 | -90 | 0 | 15 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P17 | 457800 | 6305989 | -90 | 0 | 42 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P18 | 457920 | 6306826 | -90 | 0 | 37.5 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P19 | 458014 | 6307301 | -90 | 0 | 67.5 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P20 | 458273 | 6307734 | -90 | 0 | 15 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P21 | 458313 | 6307893 | -90 | 0 | 22.5 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P22 | 458352 | 6307759 | -90 | 0 | 12 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| MN-P23 | 457425 | 6306471 | -90 | 0 | 46.5 | Aberfoyle | Minter North - Burgooney | 1980 | RAB |
| ABRAB-83001 | 457329 | 6316480 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83002 | 457229 | 6316492 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83003 | 457130 | 6316504 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83004 | 457031 | 6316516 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83005 | 456932 | 6316528 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83006 | 456833 | 6316540 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Company | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-83007 | 456734 | 6316552 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83008 | 456635 | 6316564 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83009 | 456536 | 6316576 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83010 | 457451 | 6316666 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83011 | 457352 | 6316678 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83012 | 457253 | 6316690 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83013 | 457154 | 6316702 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83014 | 457055 | 6316714 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83015 | 456956 | 6316726 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83016 | 456856 | 6316738 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83017 | 456757 | 6316750 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83018 | 456087 | 6317031 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83019 | 455985 | 6317023 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83020 | 455888 | 6317055 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83021 | 455789 | 6317067 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83022 | 455690 | 6317079 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83023 | 455591 | 6317091 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83024 | 455492 | 6317103 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83025 | 455393 | 6317115 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83026 | 456209 | 6317217 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83027 | 456110 | 6317229 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83028 | 456010 | 6317241 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83029 | 455911 | 6317253 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83030 | 455812 | 6317265 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83031 | 455713 | 6317277 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83032 | 455614 | 6317289 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83033 | 455515 | 6317301 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83034 | 455415 | 6317313 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83035 | 456232 | 6317414 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83036 | 456232 | 6317414 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83037 | 456033 | 6317438 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83038 | 455934 | 6317450 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83039 | 455835 | 6317462 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83040 | 455736 | 6317474 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83041 | 455637 | 6317486 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83042 | 455537 | 6317498 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83043 | 455438 | 6317510 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83044 | 456255 | 6317612 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83045 | 456156 | 6317624 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83046 | 456057 | 6317636 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83047 | 455957 | 6317648 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83048 | 455858 | 6317660 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83049 | 455759 | 6317672 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83050 | 455660 | 6317684 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83051 | 455560 | 6317695 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83052 | 457412 | 6318875 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83053 | 457213 | 6318899 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83054 | 457014 | 6318922 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83055 | 456815 | 6318946 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83056 | 456616 | 6318970 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Company | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-83057 | 456417 | 6318994 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83058 | 456218 | 6319018 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83059 | 456019 | 6319042 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83060 | 455820 | 6319066 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83061 | 457353 | 6320084 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83062 | 457153 | 6320108 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83063 | 456954 | 6320132 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83064 | 456755 | 6320155 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83065 | 456555 | 6320179 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83066 | 456356 | 6320203 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83067 | 456156 | 6320227 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83068 | 455957 | 6320251 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83069 | 455758 | 6320275 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83070 | 455558 | 6320298 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83071 | 455359 | 6320322 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83072 | 457470 | 6321072 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83073 | 457270 | 6321095 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83074 | 457070 | 6321119 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83075 | 456870 | 6321143 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83076 | 456671 | 6321167 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83077 | 456471 | 6321191 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83078 | 456271 | 6321214 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83079 | 456071 | 6321238 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83080 | 455872 | 6321262 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83081 | 455672 | 6321286 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83082 | 455472 | 6321309 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83083 | 457586 | 6322059 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83084 | 457386 | 6322083 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83085 | 457186 | 6322107 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83086 | 456986 | 6322131 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83087 | 456786 | 6322154 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83088 | 456586 | 6322178 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83089 | 456386 | 6322202 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83090 | 456186 | 6322225 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83091 | 455986 | 6322249 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83092 | 455786 | 6322273 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83093 | 455586 | 6322297 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83094 | 456966 | 6315121 | -90 | 0 | 17 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83095 | 456867 | 6315133 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83096 | 456769 | 6315145 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83097 | 456670 | 6315157 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83098 | 456571 | 6315169 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83099 | 456472 | 6315181 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83100 | 456373 | 6315193 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83101 | 456274 | 6315205 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83102 | 456176 | 6315217 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83103 | 456077 | 6315230 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83104 | 456990 | 6315319 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83105 | 456891 | 6315331 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83106 | 456792 | 6315343 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Company | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-83107 | 456693 | 6315355 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83108 | 456594 | 6315367 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83109 | 456495 | 6315379 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83110 | 456397 | 6315391 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83111 | 456298 | 6315403 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83112 | 456199 | 6315415 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83113 | 456100 | 6315427 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83114 | 456001 | 6315439 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83115 | 455902 | 6315451 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83116 | 455803 | 6315463 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83117 | 455704 | 6315475 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83118 | 457013 | 6315516 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83119 | 456914 | 6315528 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83120 | 456815 | 6315540 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83121 | 456716 | 6315552 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83122 | 456618 | 6315564 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83123 | 456519 | 6315576 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83124 | 456420 | 6315588 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83125 | 456321 | 6315600 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83126 | 456222 | 6315613 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83127 | 456123 | 6315625 | -90 | 0 | 17 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83128 | 456024 | 6315637 | -90 | 0 | 20 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83129 | 455925 | 6315649 | -90 | 0 | 37 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83130 | 455826 | 6315661 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83131 | 455727 | 6315673 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83132 | 455628 | 6315685 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83133 | 455530 | 6315697 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83134 | 455431 | 6315709 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83135 | 457037 | 6315714 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83136 | 456938 | 6315726 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83137 | 456839 | 6315738 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83138 | 456740 | 6315750 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83139 | 456641 | 6315762 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83140 | 456542 | 6315774 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83141 | 456443 | 6315786 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83142 | 456344 | 6315798 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83143 | 456245 | 6315810 | -90 | 0 | 13.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83144 | 456146 | 6315822 | -90 | 0 | 20 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83145 | 456047 | 6315834 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83146 | 455948 | 6315846 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83147 | 455849 | 6315858 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83148 | 455750 | 6315870 | -90 | 0 | 7 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83149 | 455651 | 6315882 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83150 | 455552 | 6315894 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83151 | 455454 | 6315906 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83152 | 455355 | 6315918 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83153 | 455256 | 6315930 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83154 | 457060 | 6315911 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83155 | 456961 | 6315923 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83156 | 456862 | 6315935 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Compan y | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-83157 | 456763 | 6315947 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83158 | 456664 | 6315959 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83159 | 456565 | 6315971 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83160 | 456466 | 6315984 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83161 | 456367 | 6315996 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83162 | 456268 | 6316008 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83163 | 456169 | 6316020 | -90 | 0 | 8 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83164 | 456070 | 6316032 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83165 | 455971 | 6316044 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83166 | 455872 | 6316056 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83167 | 455773 | 6316068 | -90 | 0 | 11 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83168 | 455674 | 6316080 | -90 | 0 | 9.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83169 | 455575 | 6316092 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83170 | 455476 | 6316104 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83171 | 455377 | 6316116 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83172 | 455278 | 6316128 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83173 | 456192 | 6316217 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83174 | 456093 | 6316229 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83175 | 455994 | 6316241 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83176 | 455895 | 6316253 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83177 | 455796 | 6316265 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83178 | 455697 | 6316277 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83179 | 455598 | 6316289 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83180 | 455499 | 6316301 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83181 | 455400 | 6316313 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83182 | 455301 | 6316325 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83183 | 455225 | 6316535 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83184 | 456116 | 6316427 | -90 | 0 | 0.1 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83185 | 456017 | 6316439 | -90 | 0 | 0.1 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83186 | 455918 | 6316451 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83187 | 455819 | 6316463 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83188 | 455720 | 6316475 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83189 | 455621 | 6316487 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83190 | 455522 | 6316499 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83191 | 455423 | 6316511 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83192 | 455324 | 6316523 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83193 | 456239 | 6316612 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83194 | 455941 | 6316648 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83195 | 455842 | 6316660 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83196 | 455743 | 6316672 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83197 | 455644 | 6316684 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83198 | 455545 | 6316696 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83199 | 455446 | 6316708 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83200 | 455347 | 6316720 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83201 | 456262 | 6316810 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83202 | 455964 | 6316846 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83203 | 455865 | 6316858 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83204 | 455766 | 6316870 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83205 | 455667 | 6316882 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83206 | 455568 | 6316894 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Company | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-83207 | 455469 | 6316906 | -90 | 0 | 6.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-83208 | 455370 | 6316918 | -90 | 0 | 7.5 | Aberfoyle | Orr/Doyenwae Extended | 1983 | RAB |
| ABRAB-82001 | 455978 | 6315242 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82002 | 455780 | 6315266 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82003 | 455583 | 6315290 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82004 | 455385 | 6315314 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82005 | 455408 | 6315511 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82006 | 455606 | 6315487 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82007 | 455803 | 6315463 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82008 | 456001 | 6315439 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82009 | 455826 | 6315661 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82010 | 455431 | 6315709 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82011 | 455187 | 6315338 | -90 | 0 | 30 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82012 | 456454 | 6314182 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82013 | 456466 | 6314280 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82014 | 456478 | 6314379 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82015 | 456489 | 6314478 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82016 | 456501 | 6314577 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82017 | 456511 | 6314657 | -90 | 0 | 12 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82018 | 456443 | 6314083 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82019 | 456344 | 6314095 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82020 | 456257 | 6314206 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82021 | 456269 | 6314305 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82022 | 456280 | 6314403 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82023 | 456292 | 6314502 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82024 | 456304 | 6314601 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82025 | 456115 | 6314698 | -90 | 0 | 0 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82026 | 456115 | 6314698 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82027 | 456106 | 6314625 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82028 | 456095 | 6314526 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82029 | 456083 | 6314427 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82030 | 456071 | 6314329 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82031 | 456060 | 6314230 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82032 | 456048 | 6314131 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82033 | 455851 | 6314155 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82034 | 455862 | 6314254 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82035 | 455874 | 6314353 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82036 | 455886 | 6314452 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82037 | 455897 | 6314550 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82038 | 455909 | 6314649 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82039 | 455918 | 6314732 | -90 | 0 | 6 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82040 | 455816 | 6313859 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82041 | 455828 | 6313958 | -90 | 0 | 9 | Aberfoyle | Orr/Doyenwae Extended | 1982 | RAB |
| ABRAB-82043 | 457362 | 6315073 | -90 | 0 | 46.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82044 | 456966 | 6315121 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82045 | 456769 | 6315145 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82046 | 456571 | 6315169 | -90 | 0 | 24 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82047 | 456373 | 6315193 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82048 | 457152 | 6314998 | -90 | 0 | 21 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82049 | 457141 | 6314900 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Compan y | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-82050 | 457129 | 6314801 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82051 | 457117 | 6314702 | -90 | 0 | 36 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82052 | 457105 | 6314603 | -90 | 0 | 42 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82053 | 457094 | 6314504 | -90 | 0 | 37 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82054 | 456955 | 6315022 | -90 | 0 | 15 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82055 | 456943 | 6314924 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82056 | 456931 | 6314825 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82057 | 456919 | 6314726 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82058 | 456908 | 6314627 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82059 | 456896 | 6314529 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82060 | 456884 | 6314430 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82061 | 456873 | 6314331 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82062 | 456861 | 6314232 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82063 | 456849 | 6314133 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82064 | 456955 | 6315022 | -90 | 0 | 22.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82065 | 456745 | 6314948 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82066 | 456734 | 6314849 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82067 | 456722 | 6314750 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82068 | 456710 | 6314651 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82069 | 456699 | 6314553 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82070 | 456687 | 6314454 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82071 | 456675 | 6314355 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82072 | 456664 | 6314256 | -90 | 0 | 6.75 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82073 | 456652 | 6314158 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82074 | 456559 | 6315071 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82075 | 456548 | 6314972 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82076 | 456536 | 6314873 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82077 | 456524 | 6314774 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82078 | 456513 | 6314676 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82079 | 456501 | 6314577 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82080 | 456489 | 6314478 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82081 | 456478 | 6314379 | -90 | 0 | 6 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82082 | 456466 | 6314280 | -90 | 0 | 21 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82083 | 456454 | 6314182 | -90 | 0 | 15 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82084 | 456350 | 6314996 | -90 | 0 | 9 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82085 | 456338 | 6314897 | -90 | 0 | 21 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82086 | 456327 | 6314798 | -90 | 0 | 27 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82087 | 456315 | 6314700 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82088 | 456304 | 6314601 | -90 | 0 | 9.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82089 | 456292 | 6314502 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82090 | 456280 | 6314403 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82091 | 456269 | 6314305 | -90 | 0 | 5.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82092 | 456257 | 6314206 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82093 | 456060 | 6314230 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82094 | 456071 | 6314329 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82095 | 456083 | 6314427 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82096 | 456095 | 6314526 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82097 | 456106 | 6314625 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82098 | 456118 | 6314724 | -90 | 0 | 7 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82099 | 456129 | 6314822 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Compan y | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-82100 | 456141 | 6314921 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82101 | 456152 | 6315020 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82102 | 455862 | 6314254 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82103 | 455874 | 6314353 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82104 | 455886 | 6314452 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82105 | 455897 | 6314550 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82106 | 455909 | 6314649 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82107 | 455920 | 6314748 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82108 | 455932 | 6314847 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82109 | 455943 | 6314945 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82110 | 455955 | 6315044 | -90 | 0 | 7 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82111 | 455665 | 6314278 | -90 | 0 | 7 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82112 | 455677 | 6314377 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82113 | 455688 | 6314476 | -90 | 0 | 7 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82114 | 455700 | 6314574 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82115 | 455711 | 6314673 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82116 | 455723 | 6314772 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82117 | 455734 | 6314871 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82118 | 455746 | 6314969 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82119 | 455468 | 6314302 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82120 | 455479 | 6314401 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82121 | 455491 | 6314500 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82122 | 455502 | 6314598 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82123 | 455514 | 6314697 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82124 | 455525 | 6314796 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82125 | 455537 | 6314895 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82126 | 455548 | 6314993 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82127 | 455560 | 6315092 | -90 | 0 | 6.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82128 | 455270 | 6314326 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82129 | 455282 | 6314425 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82130 | 455293 | 6314524 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82131 | 455305 | 6314623 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82132 | 455316 | 6314721 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82133 | 455328 | 6314820 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82134 | 455339 | 6314919 | -90 | 0 | 6.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82135 | 455351 | 6315018 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82136 | 455362 | 6315116 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82137 | 455073 | 6314351 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82138 | 455096 | 6314548 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82139 | 455119 | 6314745 | -90 | 0 | 6.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82140 | 455142 | 6314943 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82141 | 455164 | 6315140 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82142 | 454876 | 6314375 | -90 | 0 | 18 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82143 | 454899 | 6314572 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82144 | 454921 | 6314770 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82145 | 454944 | 6314967 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82146 | 454967 | 6315164 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82147 | 454990 | 6315362 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82148 | 455187 | 6315338 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82149 | 455385 | 6315314 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |

| HOLE ID | MGA94 East | MGA94 North | Dip | Azi mag | Tdepth (m) | Compan y | Prospect | Year | Hole type |
|---|---|---|---|---|---|---|---|---|---|
| ABRAB-82150 | 455373 | 6315215 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82151 | 455571 | 6315191 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82152 | 455769 | 6315167 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82153 | 455966 | 6315143 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82154 | 456164 | 6315119 | -90 | 0 | 18 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82155 | 456176 | 6315217 | -90 | 0 | 30 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82156 | 455978 | 6315242 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82157 | 455780 | 6315266 | -90 | 0 | 15 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82158 | 455583 | 6315290 | -90 | 0 | 7.5 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82159 | 455757 | 6315068 | -90 | 0 | 27 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82160 | 456443 | 6314083 | -90 | 0 | 15 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82161 | 456420 | 6313885 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |
| ABRAB-82162 | 456431 | 6313984 | -90 | 0 | 12 | Aberfoyle | Doyenwae | 1982 | RAB |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| ABRAB-82001 | 9 | 12 | 3 | 0.21 |
| ABRAB-82002 | 6 | 9 | 3 | 0.05 |
| ABRAB-82003 | 24 | 27 | 3 | 0.06 |
| ABRAB-82024 | 6 | 9 | 3 | 0.06 |
| ABRAB-82066 | 0 | 3 | 3 | 0.18 |
| ABRAB-82066 | 9 | 12 | 3 | 0.11 |
| ABRAB-82074 | 6 | 9 | 3 | 0.15 |
| ABRAB-82075 | 6 | 7.5 | 1.5 | 0.05 |
| ABRAB-82076 | 3 | 30 | 27 | 0.19 |
| incl. | 24 | 30 | 6 | 0.57 |
| ABRAB-82077 | 12 | 27 | 15 | 0.13 |
| incl. | 21 | 24 | 3 | 0.32 |
| ABRAB-82078 | 6 | 12* | 6 | 0.07 |
| ABRAB-82078 | 24 | 30 | 6 | 0.10 |
| ABRAB-82079 | 12 | 27 | 15 | 0.08 |
| incl. | 18 | 27 | 9 | 0.10 |
| ABRAB-82085 | 18 | 27 | 9 | 0.19 |
| ABRAB-82086 | 21 | 24 | 3 | 0.37 |
| ABRAB-82087 | 6 | 9 | 3 | 0.11 |
| ABRAB-82108 | 6 | 7.5 | 1.5 | 0.05 |
| ABRAB-82156 | 3 | 6 | 3 | 0.06 |
| ABRAB-83141 | 3.5 | 6.5 | 3 | 0.10 |
| ABRAB-83190 | 3.5 | 6.5 | 3 | 0.06 |
| ABRAB-83193 | 0.5 | 6.5 | 6 | 0.08 |
| ABRAB-83194 | 0.5 | 6.5 | 6 | 0.16 |
| incl. | 3.5 | 6.5 | 3 | 0.24 |
| ABRAB-83203 | 3.5 | 6.5 | 3 | 0.06 |
| CMD001 | 0 | 1.3 | 1.3 | 0.05 |
| CMD001 | 1.3 | 2.8 | 1.5 | 0.07 |
| CMD001 | 4.25 | 5.2 | 0.95 | 0.10 |
| CMD001 | 11.9 | 12.6 | 0.7 | 0.10 |
| CMD001 | 18.1 | 19.6 | 1.5 | 0.05 |
| CMD001 | 20.3 | 20.6 | 0.3 | 0.07 |
| CMD001 | 24.3 | 24.7 | 0.4 | 0.15 |
| CMD001 | 28.1 | 29.3 | 1.2 | 0.12 |
| CMD001 | 29.9 | 31.8 | 1.9 | 0.11 |
| CMD001 | 37.2 | 37.6 | 0.4 | 0.08 |
| CMD001 | 39.3 | 41 | 1.7 | 0.06 |
| CMD001 | 42.9 | 43.9 | 1 | 0.06 |
| CMD001 | 45.9 | 48.4 | 2.5 | 0.11 |
| CMD001 | 52.6 | 53 | 0.4 | 0.17 |
| CMD001 | 56 | 56.3 | 0.3 | 0.09 |
| CMD001 | 61.8 | 63.1 | 1.3 | 0.09 |
| CMD001 | 65.6 | 67.9 | 2.3 | 0.08 |
| CMD001 | 71.6 | 72.3 | 0.7 | 0.09 |
| CMD001 | 76 | 78.7 | 2.7 | 0.05 |
| CMD001 | 82.3 | 83 | 0.7 | 0.24 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| CMD001 | 85.5 | 91.2 | 5.7 | 0.09 |
| incl. | 85.5 | 87 | 1.5 | 0.15 |
| CMD001 | 95 | 98 | 3 | 0.08 |
| CMD001 | 98 | 99.4 | 1.4 | 0.18 |
| CMD001 | 101 | 103.3 | 2.3 | 0.10 |
| CMD001 | 106.7 | 112.5 | 5.8 | 0.11 |
| incl. | 106.7 | 108.5 | 1.8 | 0.12 |
| and | 110.5 | 111.5 | 1 | 0.22 |
| CMD001 | 120.2 | 121 | 0.8 | 0.16 |
| CMD001 | 124.3 | 127.3 | 3 | 0.14 |
| CMD001 | 131.45 | 132.45 | 1 | 0.70 |
| CMD001 | 142.2 | 142.6 | 0.4 | 0.15 |
| CMD001 | 143.6 | 144.5 | 0.9 | 0.14 |
| CMD001 | 161.65 | 163.85 | 2.2 | 0.08 |
| incl. | 161.65 | 162.7 | 1.05 | 0.13 |
| CMD001 | 166.4 | 169.3 | 2.9 | 0.27 |
| CMD001 | 173.5 | 174.5 | 1 | 0.12 |
| CMD001 | 177.4 | 178.5 | 1.1 | 0.11 |
| CMD001 | 180.15 | 180.5 | 0.35 | 0.07 |
| CMD001 | 185.05 | 189.1 | 4.05 | 0.68 |
| incl. | 187.9 | 189.1 | 1.2 | 1.26 |
| CMD001 | 189.9 | 192 | 2.1 | 0.08 |
| CMD001 | 194.75 | 196.2 | 1.45 | 0.40 |
| CMD001 | 211.85 | 212.5 | 0.65 | 0.42 |
| CMD001 | 220.65 | 222.4 | 1.75 | 0.19 |
| CMD001 | 234.85 | 235.8 | 0.95 | 0.13 |
| CMD001 | 244.55 | 245 | 0.45 | 0.25 |
| CMD001 | 250.25 | 258* | 7.75 | 0.15 |
| incl. | 253.5 | 254.6 | 1.1 | 0.32 |
| CMD002 | 39 | 40 | 1 | 0.05 |
| CMD002 | 70 | 71 | 1 | 0.12 |
| CMD002 | 108 | 109 | 1 | 0.18 |
| CMD002 | 113 | 115.5 | 2.5 | 0.43 |
| incl. | 114 | 115.5 | 1.5 | 0.66 |
| CMD002 | 152 | 153 | 1 | 0.82 |
| CMD002 | 166 | 167 | 1 | 0.17 |
| CMD002 | 226 | 227.3 | 1.3 | 0.15 |
| DAC001 | 4 | 14 | 10 | 0.1 |
| incl. | 4 | 6 | 2 | 0.16 |
| and | 12 | 14 | 2 | 0.19 |
| DAC001 | 18 | 22 | 4 | 0.05 |
| DAC001 | 26 | 28 | 2 | 0.09 |
| DAC002 | 4 | 6 | 2 | 0.05 |
| DAC002 | 8 | 20 | 12 | 0.18 |
| incl. | 8 | 14 | 6 | 0.22 |
| DAC002 | 16 | 18 | 2 | 0.23 |
| DAC002 | 24 | 30* | 6 | 0.12 |
| DAC003 | 8 | 18 | 10 | 0.14 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| incl. | 8 | 10 | 2 | 0.21 |
| and | 14 | 16 | 2 | 0.29 |
| DAC003 | 22 | 30* | 8 | 0.38 |
| incl. | 22 | 24 | 2 | 0.73 |
| DAC003 | 28 | 30* | 2 | 0.47 |
| DAC004 | 2 | 14 | 12 | 0.06 |
| DAC004 | 20 | 24 | 4 | 0.09 |
| DAC005 | 4 | 18 | 14 | 0.08 |
| incl. | 12 | 14 | 2 | 0.11 |
| DAC006 | 4 | 28 | 24 | 0.32 |
| incl. | 14 | 22 | 8 | 0.51 |
| and | 24 | 28 | 4 | 0.53 |
| DAC007 | 2 | 28 | 26 | 0.16 |
| incl. | 24 | 28 | 4 | 0.38 |
| DAC008 | 0 | 16 | 16 | 0.08 |
| incl. | 6 | 10 | 4 | 0.12 |
| and | 12 | 14 | 2 | 0.13 |
| DAC008 | 20 | 30* | 10 | 0.05 |
| DAC009 | 6 | 10 | 4 | 0.08 |
| incl. | 6 | 8 | 2 | 0.27 |
| DAC010 | 16 | 20 | 4 | 0.08 |
| DAC011 | 8 | 10 | 2 | 0.07 |
| DAC011 | 22 | 26 | 4 | 0.07 |
| DAC012 | 26 | 30* | 4 | 0.19 |
| incl. | 28 | 30* | 2 | 0.32 |
| DAC013 | 2 | 18 | 16 | 0.08 |
| incl. | 14 | 16 | 2 | 0.32 |
| DAC013 | 22 | 30* | 8 | 0.16 |
| incl. | 22 | 24 | 2 | 0.36 |
| DAC014 | 26 | 30* | 4 | 0.13 |
| DAC015 | 6 | 8 | 2 | 0.05 |
| DAC015 | 14 | 22 | 8 | 0.06 |
| incl. | 14 | 16 | 2 | 0.1 |
| DAC015 | 28 | 33 | 5 | 0.05 |
| DAC016 | 4 | 18 | 14 | 0.07 |
| incl. | 6 | 8 | 2 | 0.13 |
| and | 16 | 18 | 2 | 0.1 |
| DAC016 | 22 | 30 | 8 | 0.08 |
| incl. | 28 | 30* | 2 | 0.1 |
| DAC017 | 2 | 30* | 28 | 0.14 |
| incl. | 6 | 26 | 20 | 0.16 |
| and | 14 | 18 | 4 | 0.21 |
| and | 22 | 26 | 4 | 0.21 |
| DAC018 | 20 | 30* | 10 | 0.11 |
| incl. | 24 | 30* | 6 | 0.15 |
| DAC019 | 4 | 30* | 26 | 0.1 |
| incl. | 6 | 10 | 4 | 0.17 |
| and | 26 | 30* | 4 | 0.16 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| DAC020 | 2 | 6 | 4 | 0.1 |
| DAC020 | 22 | 26 | 4 | 0.1 |
| incl. | 22 | 24 | 2 | 0.14 |
| DAC021 | 8 | 26 | 18 | 0.09 |
| incl. | 10 | 12 | 2 | 0.27 |
| and | 20 | 22 | 2 | 0.14 |
| DAC022 | 0 | 20 | 20 | 0.09 |
| incl. | 4 | 8 | 4 | 0.14 |
| and | 18 | 20 | 2 | 0.13 |
| DAC022 | 26 | 33* | 7 | 0.06 |
| incl. | 32 | 33* | 1 | 0.1 |
| DAC023 | 4 | 18 | 14 | 0.09 |
| DAC023 | 6 | 8 | 2 | 0.13 |
| DAC023 | 12 | 18 | 6 | 0.11 |
| DAC023 | 26 | 42* | 16 | 0.13 |
| incl. | 30 | 32 | 2 | 0.21 |
| DAC024 | 10 | 32* | 22 | 0.08 |
| incl. | 10 | 20 | 10 | 0.12 |
| and | 16 | 20 | 4 | 0.19 |
| DAC025 | 0 | 28 | 28 | 0.15 |
| incl. | 0 | 4 | 4 | 0.42 |
| and | 16 | 18 | 2 | 0.18 |
| DAC026 | 4 | 6 | 2 | 0.06 |
| DAC026 | 12 | 22 | 10 | 0.09 |
| incl. | 12 | 14 | 2 | 0.19 |
| DAC026 | 26 | 28 | 2 | 0.05 |
| DAC028 | 22 | 28 | 6 | 0.06 |
| DAC030 | 4 | 10 | 6 | 0.11 |
| incl. | 8 | 10 | 2 | 0.18 |
| DAC030 | 16 | 32 | 16 | 0.12 |
| incl. | 24 | 26 | 2 | 0.33 |
| and | 28 | 30 | 2 | 0.16 |
| DAC031 | 0 | 6 | 6 | 0.15 |
| incl. | 2 | 4 | 2 | 0.34 |
| DAC031 | 10 | 26 | 16 | 0.1 |
| incl. | 16 | 18 | 2 | 0.24 |
| DAC032 | 18 | 24 | 6 | 0.09 |
| incl. | 20 | 22 | 2 | 0.13 |
| DAC033 | 2 | 4 | 2 | 0.05 |
| DAC033 | 10 | 12 | 2 | 0.06 |
| DAC033 | 22 | 26 | 4 | 0.08 |
| incl. | 24 | 26 | 2 | 0.11 |
| DAC034 | 16 | 18 | 2 | 0.15 |
| DAC035 | 4 | 6 | 2 | 0.1 |
| DAC035 | 26 | 30 | 4 | 0.11 |
| incl. | 28 | 30 | 2 | 0.16 |
| DAC036 | 8 | 12 | 4 | 0.15 |
| DAC036 | 22 | 26 | 4 | 0.15 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| DAC037 | 0 | 10 | 10 | 0.18 |
| incl. | 0 | 4 | 4 | 0.28 |
| DAC038 | 12 | 20 | 8 | 0.13 |
| incl. | 14 | 16 | 2 | 0.34 |
| DAC038 | 24 | 30* | 4 | 0.06 |
| DAC039 | 8 | 26 | 18 | 0.08 |
| incl. | 8 | 10 | 2 | 0.12 |
| DAC039 | 14 | 16 | 2 | 0.11 |
| DAC039 | 22 | 24 | 2 | 0.12 |
| DAC039 | 30 | 32 | 2 | 0.05 |
| DAC040 | 26 | 28 | 2 | 0.05 |
| DRC001 | 10 | 14 | 4 | 0.06 |
| DRC001 | 104 | 105 | 1 | 0.11 |
| DRC001 | 109 | 110 | 1 | 0.06 |
| DRC001 | 123 | 126 | 3 | 0.11 |
| incl. | 125 | 126 | 1 | 0.18 |
| DRC001 | 129 | 135 | 6 | 0.29 |
| incl. | 132 | 133 | 1 | 1.29 |
| DRC001 | 149 | 152 | 3 | 0.05 |
| incl. | 151 | 152 | 1 | 0.10 |
| DRC001 | 178 | 180 | 2 | 0.12 |
| DRC001 | 211 | 212 | 1 | 0.14 |
| DRC002 | 8 | 12 | 4 | 0.06 |
| DRC003 | 40 | 48 | 8 | 0.07 |
| DRC003 | 64 | 80 | 16 | 0.06 |
| DRC003 | 100 | 108 | 8 | 0.08 |
| incl. | 100 | 104 | 4 | 0.11 |
| DRC004 | 36 | 40 | 4 | 0.05 |
| DRC004 | 48 | 52 | 4 | 0.05 |
| DRC004 | 92 | 93 | 1 | 0.15 |
| DRC004 | 96 | 100 | 4 | 0.22 |
| DRC004 | 114 | 116 | 2 | 0.06 |
| DRC004 | 139 | 143 | 4 | 0.05 |
| DRC004 | 158 | 162 | 4 | 0.17 |
| incl. | 161 | 162 | 1 | 0.52 |
| DRC004 | 169 | 170 | 1 | 0.86 |
| DRC004 | 175 | 176 | 1 | 0.05 |
| MN-P01 | 1.5 | 7.5 | 6 | 0.06 |
| MN-P01 | 10.5 | 13.5 | 3 | 0.06 |
| MN-P01 | 27 | 28.5 | 1.5 | 0.05 |
| MN-P01 | 34.5 | 36 | 1.5 | 0.07 |
| MN-P02 | 3 | 55.5 | 52.5 | 0.10 |
| incl. | 24 | 28.5 | 4.5 | 0.15 |
| MN-P02 | 58.5 | 60 | 1.5 | 0.05 |
| MN-P10 | 10.5 | 15 | 4.5 | 0.06 |
| MN-P10 | 54 | 58.5 | 4.5 | 0.06 |
| MN-P11 | 13.5 | 18 | 4.5 | 0.07 |
| MN-P11 | 73.5 | 75 | 1.5 | 0.09 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| MN-P11 | 84 | 87 | 3 | 0.05 |
| MN-P24 | 36 | 52.5 | 16.5 | 0.07 |
| MN-P25 | 3 | 18 | 15 | 0.06 |
| MN-P25 | 24 | 27 | 3 | 0.06 |
| MRC005 | 6 | 8 | 2 | 0.06 |
| MRC005 | 18 | 22 | 4 | 0.08 |
| MRC005 | 24 | 28 | 4 | 0.08 |
| incl. | 24 | 26 | 2 | 0.12 |
| MRC005 | 66 | 76 | 10 | 0.13 |
| incl. | 74 | 76 | 2 | 0.33 |
| MRC005 | 84 | 94 | 10 | 0.08 |
| incl. | 92 | 94 | 2 | 0.14 |
| MRC005 | 100 | 111 | 11 | 0.12 |
| incl. | 108 | 110 | 2 | 0.45 |
| PDH01 | 6 | 27 | 21 | 0.06 |
| PDH01 | 15 | 18 | 3 | 0.11 |
| PDH01 | 36 | 45 | 9 | 0.05 |
| PDH01 | 63 | 66 | 3 | 0.05 |
| PDH01 | 88.5 | 90 | 1.5 | 0.05 |
| PDH01 | 93 | 105 | 12 | 0.19 |
| incl. | 102 | 105 | 3 | 0.50 |
| PDH02 | 1.5 | 3 | 1.5 | 0.05 |
| PDH02 | 10.5 | 37.5 | 27 | 0.07 |
| incl. | 12 | 15 | 3 | 0.15 |
| and | 25.5 | 28.5 | 3 | 0.10 |
| PDH02 | 40.5 | 55.5 | 15 | 0.10 |
| incl. | 43.5 | 48 | 4.5 | 0.18 |
| PDH02 | 61.5 | 63 | 1.5 | 0.05 |
| PDH02 | 72 | 78 | 6 | 0.07 |
| incl. | 76.5 | 78 | 1.5 | 0.12 |
| PDH02 | 81 | 121.5 | 40.5 | 0.13 |
| incl. | 102 | 108 | 6 | 0.24 |
| and | 114 | 117 | 3 | 0.34 |
| PDH03 | 1.5 | 3 | 1.5 | 0.06 |
| PDH03 | 15 | 18 | 3 | 0.15 |
| PDH03 | 37.5 | 39 | 1.5 | 0.10 |
| PDH03 | 43.5 | 45 | 1.5 | 0.06 |
| PDH03 | 49.5 | 64.5 | 15 | 0.08 |
| incl. | 49.5 | 51 | 1.5 | 0.14 |
| and | 57 | 58.5 | 1.5 | 0.12 |
| PDH03 | 67.5 | 69 | 1.5 | 0.06 |
| PDH03 | 103.5 | 105 | 1.5 | 0.16 |
| PDH04 | 4.5 | 7.5 | 3 | 0.07 |
| PDH04 | 15 | 19.5 | 4.5 | 0.10 |
| incl. | 18 | 19.5 | 1.5 | 0.17 |
| PDH04 | 28.5 | 31.5 | 3 | 0.06 |
| incl. | 36 | 37.5 | 1.5 | 0.12 |
| PDH04 | 51 | 64.5 | 13.5 | 0.09 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| incl. | 55.5 | 57 | 1.5 | 0.12 |
| and | 60 | 63 | 3 | 0.12 |
| PDH04 | 70.5 | 85.5 | 15 | 0.10 |
| incl. | 75 | 76.5 | 1.5 | 0.50 |
| PDH04 | 111 | 112.5 | 1.5 | 0.06 |
| PDH05 | 22.5 | 27 | 4.5 | 0.12 |
| PDH05 | 39 | 43.5 | 4.5 | 0.25 |
| incl. | 39 | 40.5 | 1.5 | 0.50 |
| PDH05 | 54 | 87 | 33 | 0.11 |
| incl. | 54 | 55.5 | 1.5 | 0.21 |
| and | 58.5 | 60 | 1.5 | 0.33 |
| and | 63 | 66 | 3 | 0.21 |
| and | 78 | 79.5 | 1.5 | 0.25 |
| and | 81 | 84 | 3 | 0.14 |
| PDH05 | 91.5 | 93 | 1.5 | 0.07 |
| PDH05 | 97.5 | 99 | 1.5 | 0.05 |
| PDH05 | 102 | 106.5 | 4.5 | 0.23 |
| PDH05 | 108 | 109.5 | 1.5 | 0.06 |
| PDH06 | 24 | 31.5 | 7.5 | 0.08 |
| incl. | 24 | 27 | 3 | 0.11 |
| PDH06 | 49.5 | 57 | 7.5 | 0.06 |
| incl. | 54 | 55.5 | 1.5 | 0.11 |
| PDH06 | 61.5 | 64.5 | 3 | 0.09 |
| PDH06 | 88.5 | 91.5 | 3 | 0.12 |
| PDH06 | 106.5 | 109.5 | 3 | 0.05 |
| PDH07 | 10.5 | 12 | 1.5 | 0.07 |
| PDH07 | 28.5 | 30 | 1.5 | 0.06 |
| PDH07 | 34.5 | 36 | 1.5 | 0.07 |
| PDH07 | 51 | 52.5 | 1.5 | 0.09 |
| PDH08 | 0 | 7.5 | 7.5 | 0.09 |
| incl. | 4.5 | 7.5 | 3 | 0.13 |
| PDH08 | 10.5 | 18 | 7.5 | 0.18 |
| incl. | 15 | 16.5 | 1.5 | 0.43 |
| PDH08 | 21 | 33 | 12 | 0.06 |
| PDH08 | 36 | 39 | 3 | 0.05 |
| PDH08 | 46.5 | 49.5 | 3 | 0.06 |
| PDH08 | 51 | 57 | 6 | 0.07 |
| incl. | 55.5 | 57 | 1.5 | 0.11 |
| PDH08 | 63 | 78 | 15 | 0.07 |
| incl. | 69 | 70.5 | 1.5 | 0.15 |
| and | 74.5 | 75 | 0.5 | 0.12 |
| PDH08 | 85.5 | 91.5 | 6 | 0.30 |
| incl. | 87 | 90 | 3 | 0.48 |
| PDH08 | 117 | 118.5 | 1.5 | 0.27 |
| PDH09 | 6 | 13.5 | 7.5 | 0.07 |
| incl. | 7.5 | 9 | 1.5 | 0.13 |
| PDH09 | 22.5 | 37.5 | 15 | 0.08 |
| incl. | 31.5 | 33 | 1.5 | 0.15 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| PDH09 | 46.5 | 48 | 1.5 | 0.08 |
| PDH09 | 52.5 | 54 | 1.5 | 0.06 |
| PDH09 | 63 | 64.5 | 1.5 | 0.05 |
| PDH09 | 72 | 100.5 | 28.5 | 0.11 |
| incl. | 91.5 | 93 | 1.5 | 0.42 |
| and | 97.5 | 100.5 | 3 | 0.27 |
| PDH10 | 1.5 | 28.5 | 27 | 0.17 |
| incl. | 10.5 | 13.5 | 3 | 0.57 |
| and | 19.5 | 21 | 1.5 | 0.37 |
| PDH10 | 42 | 43.5 | 1.5 | 0.08 |
| PDH10 | 52.5 | 57 | 4.5 | 0.06 |
| PDH10 | 66 | 76.5 | 10.5 | 0.08 |
| incl. | 69 | 72 | 3 | 0.15 |
| PDH10 | 96 | 97.5 | 1.5 | 0.13 |
| PDH11 | 4.5 | 16.5 | 12 | 0.12 |
| incl. | 7.5 | 9 | 1.5 | 0.20 |
| and | 12 | 15 | 3 | 0.19 |
| PDH11 | 28.5 | 33 | 4.5 | 0.08 |
| incl. | 30 | 31.5 | 1.5 | 0.13 |
| PDH11 | 40.5 | 51 | 10.5 | 0.08 |
| incl. | 42 | 43.5 | 1.5 | 0.18 |
| PDH11 | 57 | 61.5 | 4.5 | 0.09 |
| incl. | 57 | 60 | 3 | 0.11 |
| PDH11 | 66 | 70.5 | 4.5 | 0.08 |
| PDH11 | 94.5 | 96 | 1.5 | 0.05 |
| PDH12 | 13.5 | 15 | 1.5 | 0.05 |
| PDH12 | 24 | 25.5 | 1.5 | 0.08 |
| PDH12 | 30 | 31.5 | 1.5 | 0.06 |
| PDH12 | 81 | 84 | 3 | 0.09 |
| incl. | 82.5 | 84 | 1.5 | 0.12 |
| PDH13 | 0 | 3 | 3 | 0.11 |
| PDH13 | 13.5 | 18 | 4.5 | 0.15 |
| incl. | 16.5 | 18 | 1.5 | 0.26 |
| PDH13 | 28.5 | 33 | 4.5 | 0.08 |
| incl. | 30 | 31.5 | 1.5 | 0.11 |
| PDH13 | 69 | 70.5 | 1.5 | 0.10 |
| PDH14 | 0 | 7.5 | 7.5 | 0.17 |
| incl. | 0 | 3 | 3 | 0.27 |
| PDH14 | 19.5 | 22.5 | 3 | 0.06 |
| PDH14 | 43.5 | 46.5 | 3 | 0.09 |
| PDH14 | 54 | 58.5 | 4.5 | 0.07 |
| PDH14 | 61.5 | 70.5 | 9 | 0.12 |
| incl. | 64.5 | 66 | 1.5 | 0.23 |
| PDH14 | 75 | 79.5 | 4.5 | 0.12 |
| incl. | 75 | 76.5 | 1.5 | 0.23 |
| PDH15 | 1.5 | 3 | 1.5 | 0.16 |
| PDH15 | 52.5 | 54 | 1.5 | 0.05 |
| PDH15 | 57 | 58.5 | 1.5 | 0.05 |

| Hole ID | from (m) | to (m) | interval (m) | WO3 (%) |
|---|---|---|---|---|
| PDH15 | 70.5 | 75 | 4.5 | 0.12 |
| incl. | 70.5 | 72 | 1.5 | 0.21 |
| PDH16 | 15 | 18 | 3 | 0.06 |
| PDH16 | 37.5 | 39 | 1.5 | 0.05 |

**Independent Geologist's Report on**

**EL8811 "Minter", NSW**

# APPENDIX II

JORC Table 1

# JORC TABLE 1

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

| Criteria | Explanation | |
|---|---|---|
| *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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *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.* | Rock and soil samples are essentially random point samples, except for selective rock samples<br>Drill samples i.e auger, RAB, RC or diamond core were collected over varying intervals, generally in the range of 1-3m. Auger, RAB, RC are grab or split samples. Core is cut in half.<br><br>'Grab' and splitting of samples are an attempt at representivity, Half drill core can generally be considered representative.<br><br>The tungsten mineralisation is hosted in the weathered zone and transitioning into fresh rock. The reporting of historic sampling practices for drilling indicates fairly standard practice of the time. Sub-sampling by grabs or riffle splitting to obtain 2-3kg samples for laboratory preparation, crushing, pulverising then assaying a smaller sub-sample. |
| *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).* | Auger drilling specs are unknow<br>RAB holes are 160mm diameter open hole<br>RC percussion or RC hammer (face sampling) holes are 150mm or 162.5mm<br>Air core RC holes were 125mm, face sampling method<br>Diamond core holes were HQ2 or HQ3 then NQ and were oriented using the Reflex orientation method. |

| Criteria | Explanation | |
|---|---|---|
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | Recoveries are not recorded<br><br>Unknown<br><br>Unknown |
| *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | All holes are geologically logged. Mineral Resources or metallurgical studiess are not reported<br><br>Logging is descriptive by nature, some estimates of mineral abundance, weathering are quantitative.<br><br>Geological logs record 100% of the intersections logged |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | Drill core was cut in half with a 'diamond saw"<br><br>EZ-Aberfoyle Auger, RAB and early RC holes were sub-sampled by the 'grab method', retaining about 2kg. Later RC holes are riffle split on a 1/16$^{th}$ ratio, resulting in a 2kg sub-sample. Wet or dry sampling is not recorded, although water inflow is recorded in some of the deeper RC holes. For the Cullen AC, RC and diamond drilling sample prep was undertaken at ALS Orange, by crushing 2-3kg sample to 70% -6mm and then pulverise that sample to 80% -75 microns.<br>The sample preparation method is unknown for the EZ-& Aberfoyle drilling.<br><br>Quality control for sample preparation is not reported for any of the drilling campaigns.<br><br>For the EZ-Aberfoyle drilling a second sample was commonly collected. However, any QA/QC results have not been identified<br><br>The sample size is considered to be appropriate for the grain size of the material being sampled. |

| Criteria | Explanation | |
|---|---|---|
| *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.*<br>• *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.*<br>• *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.* | Most of the tungsten analysis was undertaken using XRF, "pressed pellet" or XRF following a sodium peroxide digestion. These techniques respectively are considered near total and total. Other elements (such as base metals and gold) are generally analysed by AAS or ICP following acid digestion. This is considered a total technique. Some neutron activation analysis is reported for the Cullen diamond core as part of QA/QC checks on assay pulps.<br><br>Not used<br><br>For the EZ-Aberfoyle RAB drilling they report re-assaying of 80 assay pulps at a separate laboratory. Results were within 4% of original results.<br>For the Cullen RC data QA/QC procedures are notreported. Internal laboratory standards, blanks and duplicates for the program show acceptable accuracy and precision. ……….. For the diamond drilling original W values over 1000ppm reported from pressed pellet XRF were re-analysed sodium peroxide fusion XRF. Good agreement was observed.<br>15 of the original pulps with various W grades were selected for re-analysis by sodium peroxide fusion and Neutron Activation at different laboratories to the original assays.<br>From this work good agreement was shown between the original assays and re-assays and the neutron activation assays. The second lab sodium peroxide XRF, showed good agreement at higher W grades but poor agreement at lower W grades. This is believed to be a lab problem. |
| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | Unknown for previous explorers. Pan Asia and RME have calculated drill intersections and these accord with those reported by previous explorers.<br><br>Twinned holes not used<br>Unknown procedures and protocols for EZ-Aberfoyle data. All data assumed to be hardcopy (1978-1984)<br><br>For Cullen data it is assumed data was in both hard-copy form and digital form. However, no procedures or protocols are documented.<br><br>Reported W is converted to $WO_3$ by multiplying W by 1.261 |
| *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.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | No Mineral Resource being reported<br><br>All data is reported in MGA94 grid in metres. The earlier data has been converted from local grid.<br><br>Topographic control is not material to the results. |

| Criteria | Explanation | |
|---|---|---|
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | Soil samples, auger and RAB drilling are reported on regular by varying grids. Some drillholes are also reported on a semi regular grid.<br>No Mineral Resources or Ore Reserves are being reported<br><br>Sample compositing is only used to estimate weighted average grades for drill intersections. |
| *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.*<br>• *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.* | For soils and rock chip sampling this is not relevant.<br>The vertical drillholes and angled drillholes appear to oriented parallel or sub-parallel to the mineralised structures.<br><br>The nature of bias introduced is unknown. However, it does appear that at the one or two prospects the drill orientation is 90 degress from being optimum to test the interpreted main controls, and that some of the drill intersections are drilling down the mineralised veins. |
| *Sample security* | • *The measures taken to ensure sample security.* | EZ and Aberfoyle samples were freighted to AMDEL in Adelaide. For the Cullen drilling, their personnel or RME personnel delivered them to secure storage at RME premises, from where they were delivered to ALS in Orange. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | No audits or reviews have been undertaken. |

## Section 2 Reporting of Exploration Results

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

| Criteria | Explanation | |
|---|---|---|
| *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.*<br>• *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.* | The project is held via Exploration Licence 8811, registered to Pan Asia Metals (Aust) Pty Ltd which is a 100% subsidiary of Singapore registered Pan Asia Metals Limited.<br>The bulk of the land is freehold estate. A small block of Crown Land surrounds the Orr Trig station in the centre of the tenement.<br>There is currently no claim for Native title within the Licence area. However, the Right ot Negotiate process will be required should the Company wish to conduct exploration on Crown Land<br><br>The tenure is secure, with the licence dur to expire on December 14, 2022, at which time Pan Asia can apply for renewal.<br>There are no known impediments to obtaining a licence to operate in the area aside from normal regulatory requirements. |

| Criteria | Explanation | |
|---|---|---|
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | With tin being the focus EZ commenced exploration in the area in 1978. They conducted mapping, rock-chip sampling, ground magnetics, shallow auger and RAB drilling. In 1979 .Aberfoyle farmed-into the project. Over the next four years Aberfoyle conducted magnetic surveys, rock-chip sampling, mapping, RAB and RC drilling. This led to drilling which included 377 shallow RAB holes for 4053m and 38 RC holes for 3406m. Numerous holes intersected anomalous to low grade tungsten values over reasonable downhole widths. Aberfoyle relinquished the area in 1984.<br><br>The next major phase of exploration was commenced by Cullen Resources in 2005. Cullen conducted soil and rock chip sampling, mapping, ground magnetics and gravity surveys. These programs culminated in Cullen conducting drilling. This included 41 shallow aircore/RC holes for 1261m, 5 deeper RC holes for 765m and 2 diamond drill core holes for 522m. Better intersections included: 24m @ 0.32% $WO_3$, 28m @ 0.16%.<br><br>$WO_3$ and 33m @ 0.11% $WO_3$. Cullen relinquished the project in 2017. The work done by previous explorers appears to be well executed and in line with standard industry practice of the time. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | EL8811 is located within the central portion of the Lachlan Orogen a major crustal unit with rocks ranging in age from Cambrian to late Tertiary. It includes the broadly-defined "Wagga-Omeo Tin Belt" (WOTB) which extends 700km from north-eastern Victoria to the NNW into NSW. The WOTB is comprised of early to middle Ordovician turbiditic metasediments of the Wagga Group, which are intruded by early to middle Silurian high-potassium S-type granites of the Koetong Suite. Numerous tin, tin-tungsten, tungsten and gold occurrences are associated with the granite intrusions, over the length of the WOTB. These deposits are associated with quartz veins, stockworks, breccia and greisens. Mineralisation commonly occurs at or near the intrusive contact zones and granite cupolae but can occur at some distance in the metasediments. |
| *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:*<br>  • *easting and northing of the drill hole collar*<br>  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  • *dip and azimuth of the hole*<br>  • *down hole length and interception depth*<br>  • *hole length.*<br>• *If the exclusion of this information is justified on* | Some of the exploration data is presented graphically in the accompanying report as plans or cross sections.<br><br>463 drillhole collars are tabulated and presented as are material downhole $WO_3$ intersections reported at >0.05% $WO_3$. |

| Criteria | Explanation | |
|---|---|---|
| | *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.* | |
| *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.*<br>• *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.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | Weighted average intersections are reported at > 0.05% $WO_3$, and may rarely, allow for internal diliution of < 0.05%$WO_3$. No top cut has been applied.<br><br>Higher grade zones within the bulk lower grade zones reported at >0.05% $WO_3$ are reported, where material.<br><br>Metal equivalents are not reported. |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *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').* | Most of the drilling reported is RAB and RC, these holes are vertical or angled towards the east and provide little in the way of geometry information.<br><br>Diamond core with orientation does provide geometry information for the mineralisation. As such it would appear that at the Doyenwae prospect that all previous drilling has effectively drilled parallel or sub-parallel to the main mineralised vein direction<br><br>The reported drill intersection are downhole length, true width is unknown, |
| *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.* | These are provided |

| Criteria | Explanation | |
|---|---|---|
| *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.* | Material results (>0.05% WO3) from all drillholes are reported. Drillholes without material intersections are not reported in the intersection file, but do appear in the drill collar file. |
| *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.* | Other exploration data are reported in the document. These include ground and aeromagnetics, induced polarisation and gravity. Some references are made to historic rock-chip and soil sampling results, of which only the tungsten results are material Petrological and other test-work has identified tungsten in goethite in the weathered zone and is present as primary scheelite and lesser wolframite.<br>Some multi-element data indicate generally low levels of potentially deleterious or contaminating substances. |
| *Further work* | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | At the Doyenwae prospect additional RC and diamond drilling are planned to test the mineralised veins with drill directions oriented perpendicular to strike. Additional reconnaissance drilling may also be undertaken at other prospects depending upon results from Doyenwae.<br>Remodelling and interpretation of existing geophysical datasets is also planned. |