

# ASX Announcement



26 October 2021

## QUARTERLY REPORT – QUARTER ENDED 30 SEPTEMBER 2021

Please find attached the Quarterly Activities Report and Appendix 5B for the three-month period ended 30 September 2021.

Yours faithfully,

**Simon Youds**  
**Executive Chairman**  
**Cauldron Energy Limited**

### ABN

22 102 912 783

### Address

Unit 47,  
Level 1  
1008 Wellington Street  
WEST PERTH WA 6005

PO BOX 1024  
West Leederville WA 6007

### ASX Code

CXU

### Securities on Issue

491,293,630 shares  
6,833,395 Options (exercise price: \$0.03; expiry 31 Dec 2021)  
16,666,666 Options (exercise price: \$0.03; expiry 31 Mar 2022)  
10,000,000 Unlisted Options (exercise: \$0.03; expiry 16-Sep-22)  
6,000,000 Unlisted Options (exercise: \$0.05; expiry 16-Sep-23)  
61,001,898 Options (exercise price: \$0.05; expiry 30 Nov 2023)  
9,000,000 Performance Rights (expiring 10 August 2025)

### Board of Directors

Simon Youds  
Executive Chairman

Jess Oram  
Non-Executive Director

Qiu Derong  
Non-executive Director

Judy Li  
Non-executive Director

Chenchong Zhou  
Non-executive Director

Michael Fry  
CFO/Company Secretary

## **HIGHLIGHTS**

### **EXPLORATION & PROJECTS**

#### **Blackwood Gold Project**

##### **During this Quarter:**

- In early July, Cauldron appointed Mark Burdett, a highly experienced and technically accomplished geologist, specialising in structural geology, to manage and guide the exploration activities at Blackwood.
- In mid-August, Cauldron commenced drilling at Blackwood following establishment of site operations and mobilization of personnel and equipment to site.
- The first two diamond drill-holes targeted a highly exciting area adjacent to the Annie Laurie reef. Interpretation of this significant new target area results from a comprehensive technical review of all available historical reports.
- Both holes intersected a historically mined void, believed to be a fault structure – this is a very promising sign confirming that initial interpretations of historical high-grade zone locations were accurate.
- To improve access to these drilling areas, it has been necessary to secure the Tyrconnel / Annie Laurie reef junction earlier than planned.
- The Company's personnel are in the process of establishing the underground infrastructure and required ground support to enable drilling to recommence.
- Work at site has continued unabated despite recent high rainfall, localised earthquake and COVID lockdowns but access to consumables and suitably experienced personnel has hindered ground support operations.
- The Company estimates the completion of ground support works by mid-November.

##### **Future Activities**

- The current proposed plan/timing of further work is as follows:
  - Continuation with ground support to enable drilling to recommence.
  - Continuation of first phase of drilling program designed to include 36 holes for ~4,800 metres.

##### **Background**

- The Blackwood Goldfield project is located southeast of Daylesford, in the highly prospective Central Victorian Goldfields that surround Ballarat.
- The Project covers an area of about 24 km<sup>2</sup> and secures the most significant portion of the historic Blackwood Goldfield.
- From 1864 to 1960, the Blackwood Goldfield produced about 218,000 ounces of gold<sup>1</sup>.
- The Vendor of the Project has spent 25 years consolidating the leases specific to the area in question, providing a great opportunity for systematic exploration and development for the first time in recent history.
- Multiple high-priority targets identified with plans for immediate testing.

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<sup>1</sup> **Source:** Report titled "The Gold Mines of Blackwood" prepared by Erik Norum, Consultant Geologist, August 2018

## WA Sands Project

### During this Quarter

- The acquisition is partially complete, with ownership of four licences (EL08/2328, EL08/2329 and EL08/2462 and miscellaneous licence L08/71) transferred to Cauldron to date.
- In late September, Cauldron was notified of the unsuccessful appeal made against the decision to invalidate the determination of Mining Lease Application M09/150. Cauldron since made a replacement application which passed the objection period without comment.
- Proceedings against Cauldron, the project vendor, the Mining Registrar and the WA Minister for Mines, Industry Regulation and Safety remain ongoing with respect to Mining Lease 08/487, located at the mouth of the Ashburton River in Onslow, where a third party is opposing the transfer of Mining Lease 08/487 to Cauldron.
- The project vendor and the Company have agreed that if the legal proceedings in relation to either MLA09/150 or ML08/487 are not concluded in favour of Cauldron or the project vendor, that they may consider an adjustment to, or replacement of, the tenement(s).
- Cauldron has conducted sampling and physical characterisation studies of sand material from the Onslow and Carnarvon exploration licences. Results confirm that the sand contains less than 5% of fine material (clays and silts), is comprised of medium-coarse, highly angular grains of the specific type required for the production of concrete used in the construction industry.
- A trial mix test was also undertaken with the intended local sand and aggregate inputs for the manufacture of concrete. Preliminary results show that the concrete consistently exceeded the strengths required for high strength marine grade concrete.

### Background

- In late December 2020, Cauldron announced the acquisition of a 100% ownership interest in a number of river sand tenements located at the mouths of the Carnarvon, Onslow and Derby rivers in Western Australia, collectively covering an area of about 286 km<sup>2</sup>.
- Sand is the most consumed natural resource on the planet besides water and by far the largest globally mined commodity. It is estimated that over 40 billion tonnes of aggregate (sand and gravel) is consumed annually<sup>2</sup>.
- The demand for construction sand, found in the beds, banks and riverplains of rivers, as well as in lakes and on the seashore, is significant and likely to outstrip supply in years to come.
- High quality silica sand is a key ingredient in the manufacture of concrete. Additionally, the sand must be angular in shape so as to provide the necessary binding strength (through interlocking sand and aggregate grains) with the cement. The river mouth sand licences acquired by Cauldron are expected to contain high quality silica sand suitable for cement production.
- Cauldron is seeking to establish a concrete manufacturing business with an agreement reached with Kuuwa Rentals Pty Ltd to lease its T4 Sami Mobile Concrete Batching Plant, capable of producing a range of high strength quality concrete products. Contemporaneously, Cauldron signed an initial one-year property lease with Traditional Owner, BTAC, in Onslow's industrial zone to house the Mobile Concrete Batching Plant.

## Yanrey Uranium Project

### During this Quarter

- Apart from minor recent activity at the Company's Flagstaff tenement (E08/3088), development work remains suspended pending a change in government support for mining of uranium in Western Australia.
- Uranium spot price finished the quarter significantly higher at US\$44.11/lb (30 June 2021: US\$32.23/lb) having reached a 9 year high of US\$50.88/lb on 17 September 2021 and has since fluctuated appreciably but is currently trading at US\$47.20/lb as at the date of this report (*Source: Trading Economics*).

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<sup>2</sup> **Source:** "Why the world is running out of Sand" BBC article dated 18 November 2019, author Vince Beiser

- According to Trading Economics the rise in the uranium spot price is as a result of a strong outlook for demand, with supply constraints expected to continue for medium term.

### Future Activities

- Resource Potentials to complete the passive seismic data collection at Flagstaff. This will occur in Q4 2021, with the survey crew remobilising to the Yanrey Project area at the time of writing this report.
- Cauldron will incorporate the passive seismic data into the exploration model and consider follow-up work

### Background

- Yanrey is prospective for large sedimentary-hosted uranium deposits and is host to the Bennet Well Uranium Deposit.
- The Bennet Well Uranium Deposit is comprised of four spatially separate deposits; Bennet Well East, Bennet Well Central, Bennet Well South and Bennet Well Channel.
- The Mineral Resource (JORC 2012) estimate is:
  - Inferred Resource: 16.9 Mt at 335 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 12.5 Mlb (5,670 t) at 150 ppm cut-off;
  - Indicated Resource: 21.9 Mt at 375 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 18.1 Mlb (8,230 t) at 150 ppm cut-off;
  - total combined Mineral Resource: 38.9 Mt at 360 ppm eU<sub>3</sub>O<sub>8</sub>, for total contained uranium-oxide of 30.9 Mlb (13,990 t) at 150 ppm cut-off.
- Cauldron has not completed any work on the mineralisation since the Mineral Resource was published in 2015.
- The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the North Carnarvon Basin.

### **Project Generation**

- Cauldron remains vigilant to new project opportunities that complement the Company's project portfolio, are value accretive and have the potential to provide early cash flow. Shareholders will be informed of key developments if and when they occur.

### **Corporate**

- On 8 September 2021, the Company completed a placement issuing 35,294,118 new fully paid ordinary shares at 3.4 cents each raising a total of \$1.2 million before costs. Participants in the placement were issued a total of 17,647,059 free attaching unlisted options which are exercisable on or before 30 November 2023, at an exercise price of \$0.05. The unlisted options were issued on the basis of 1 free attaching option for every two shares subscribed for.
- On 30 September 2021, the Company released its annual financial report to market.
- During the quarter Ms Asha Rao, who has wide-ranging experience in both gold and uranium mineral systems across three continents, commenced employment as Exploration Manager to oversee Cauldron's Blackwood Gold Project and Yanrey Uranium Project.

### **Cash Position**

- As at 30 September 2021, Cauldron had circa \$1.5 million cash at bank (30 June 2021: \$375k).
- In addition, the Company holds a portfolio of shares in other ASX listed entities valued at approximately \$0.7 million as at the date of this report.
- The Company can continue to divest (in part or all) of its portfolio of shares in other ASX listed entities to meet short to medium term cash requirements.

Cauldron Energy Ltd (**Cauldron** or the **Company**) is pleased to present its Quarterly Activities Report for the period ended 30 September 2021.

## **EXPLORATION ACTIVITIES: AUSTRALIA**

In Australia, Cauldron holds a 51% joint venture interest in the Blackwood Gold Project located south-east of Daylesford, in the highly prospective Central Victorian Goldfields that surround Ballarat.

In December 2020, Cauldron announced the acquisition of a 100% ownership interest in a number of river sand leases located at the mouths of the Carnarvon, Onslow and Derby rivers in Western Australia, collectively covering an area of about 286 km<sup>2</sup>. As at the date of this report, the acquisition is partially complete, with ownership of four of the eight licences having transferred to Cauldron. For further information refer following.

In addition, Cauldron owns the **Yanrey Project (Yanrey)** consisting of 12 granted exploration licences for a total project area of 1,270 km<sup>2</sup> in Western Australia. Yanrey is prospective for large sedimentary-hosted uranium deposits and is host to the Bennet Well Uranium Deposit.

## **BLACKWOOD GOLD PROJECT**

From 1864 to 1960 the Blackwood Goldfield produced about 218,000 ounces of gold from orogenic gold sources (199,000 ounces) and from placer sources (19,000 ounces).<sup>3</sup> Gold was won from surface down to a depth of 100 m below ground level, with very little mining activity below a depth of 150 m. The Sultan mine is the deepest in the goldfield with production levels at 230 m below ground surface and its shaft reaching 274 m, and still in pay.

For detailed information on the Blackwood Gold Project and historical work performed refer Appendix B.

### ***Work Completed During Reporting Period***

In mid-August 2021, Cauldron commenced its drilling program at Blackwood Gold Project following consent received from Melbourne Water, and the Earth Resource Regulation (ERR) division of Victoria's Department of Jobs, Precincts and Regions.

The commencement of drilling followed the completion of services with over 450 metres of underground pipework having been installed providing air and water to the intended drill sites, and of the undertaking of community engagement programs aimed at outlining Cauldron's work approach and objectives. These objectives focus on Cauldron's commitment to achieving net zero carbon emissions during exploration and mining operations.

The drilling program was designed to utilise the Tyrconnel Adit and drive as a drill access point to target deeper high-grade plunges projected for the Sultana, Sultan and North Sultan prospects (Figure 1); with no impact on surface. The Tyrconnel drive runs ~1.5km east to west at approximately 100 metres below surface (Figure 2) and bisects many of the North-South striking reef systems.

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<sup>3</sup> **Source:** Report titled "The Gold Mines of Blackwood" prepared by Erik Norum, Consultant Geologist, August 2018

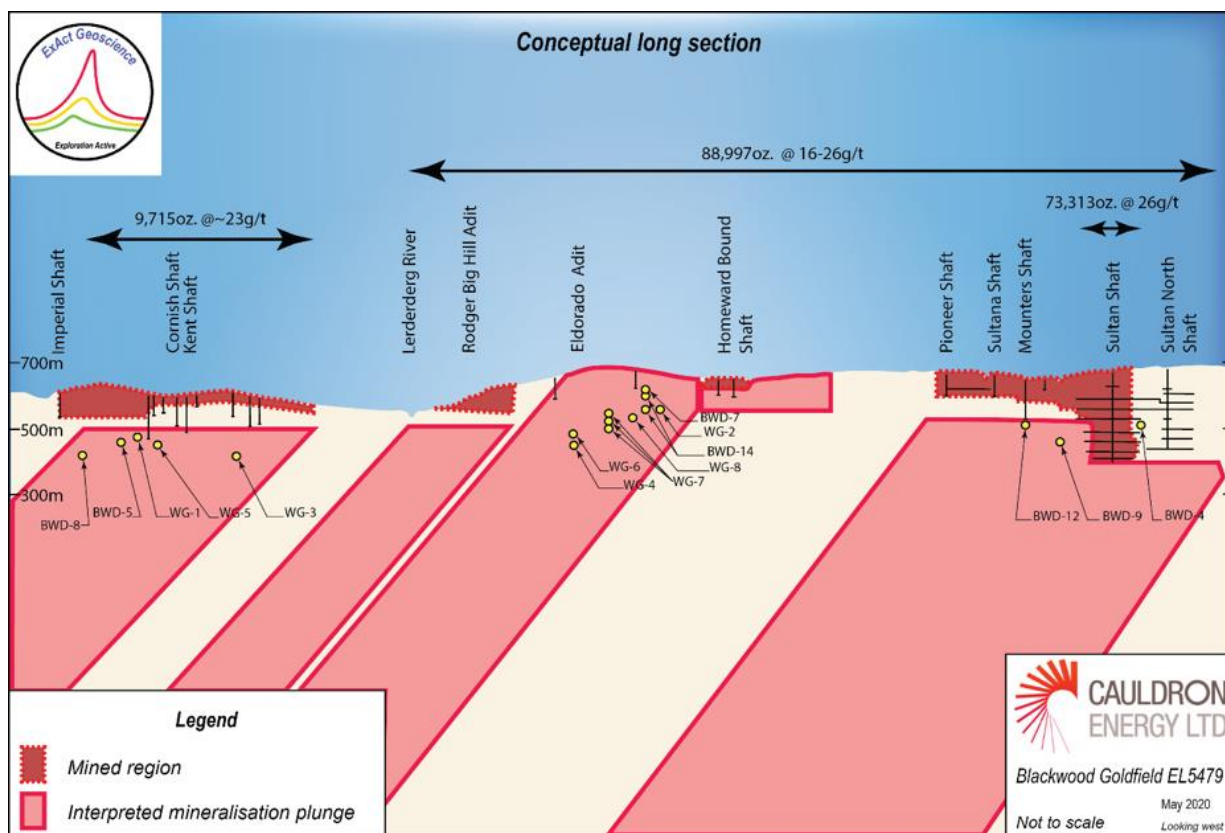


Figure 1: SN Long Section showing historical shafts & production

The walk-in tunnel system can also be used to structurally map and sample the multiple reef structures identified from historical activities (Figure 2).

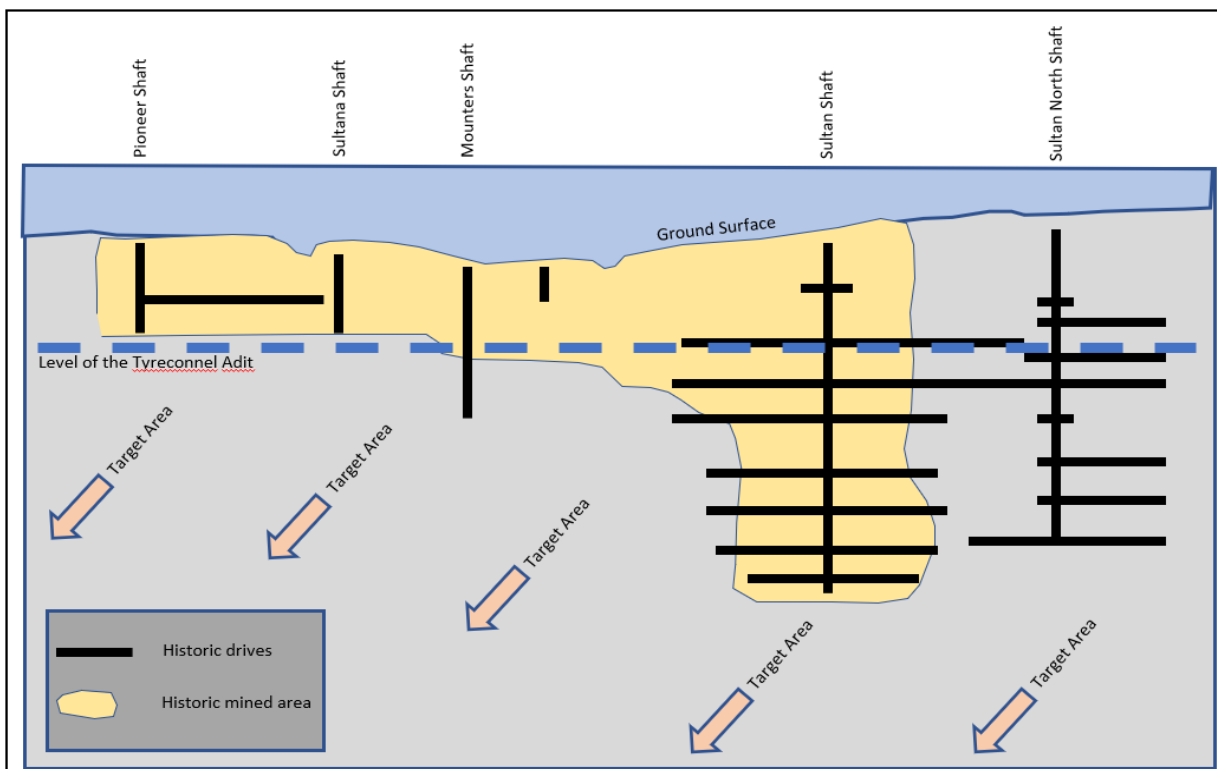
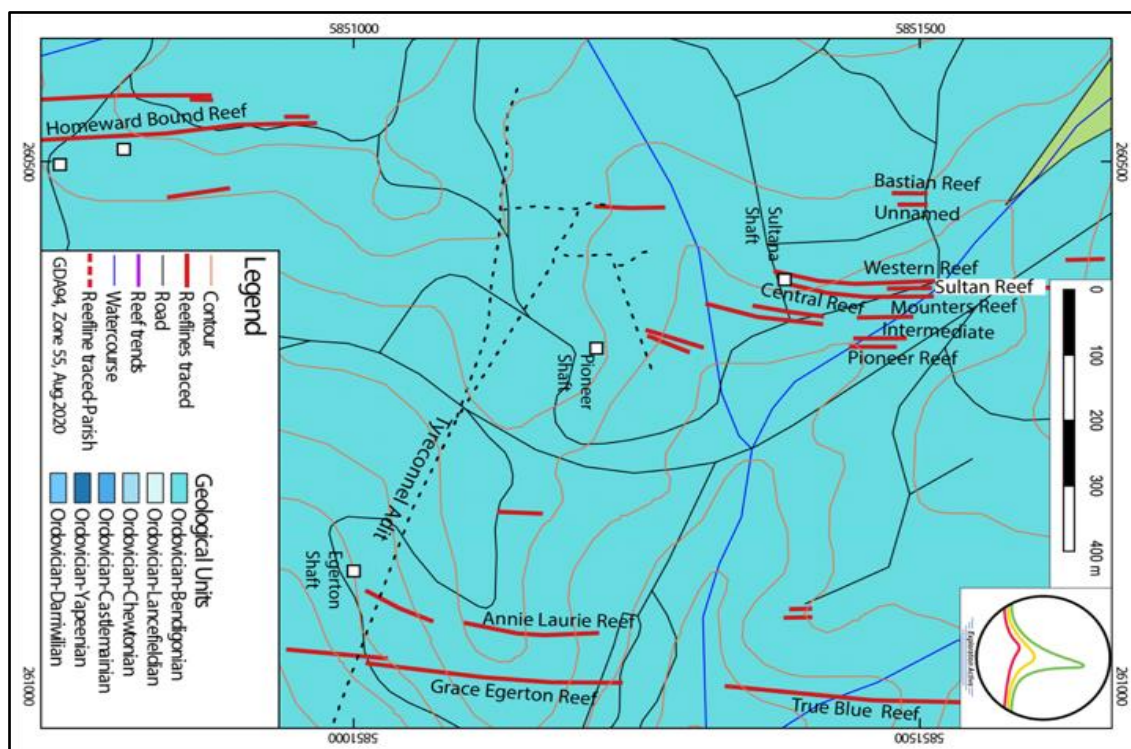


Figure 2; the walk-in Tyreconnel adit accesses under Pioneer and Mounters shafts allowing access for bulk sampling and multiple short drill opportunities into the predicted high-grade reefs underfoot.



This drive also allows physical access to the key northern shaft areas of Pioneer and Mounters which were stopped by lack of pumping technology. Accessing these areas for sampling grows the geological understanding but may also open up the area for potential production without significant time or cost.



**Figure 3: Parallel lode structures untested by drilling**

A total of two diamond drill holes were drilled during the quarter, each into the footwall, or eastern side, of the Annie Laurie reef targeting a potential high-grade zone in the hanging wall of the reef. The Annie Laurie void was intersected by both holes, prior to reaching the interpreted depths of the intended targets. To obtain satisfactory drill core for sampling from this initial area of interest, it has been necessary to secure safe access through the intersecting area between the Annie Laurie reef and the Tyrconnel Adit. This will then allow the redesign of the first phase of planned holes to drill this target from the western and hanging wall sides of the reef. Drilling from the hanging wall side of the reef was always planned, however this was intended to occur in the second phase of exploratory drilling later in the program. The complete extraction of the Annie Laurie by historical miners, while highlighting the original value of the reef, frustrated the team's initial efforts for an 'early win'. It was originally hoped that the initial target could be tested without needing to complete this work early in the campaign, however it quickly became obvious that completing the ground support work now will prove to be a better use of precious shareholder funds and allow the resumed drilling to continue relatively uninterrupted in the long term.

The safe transition across the Annie Laurie reef system will allow the drill to be placed adjacent to the initial area of interest. The relative proximity of this zone to the area of ground support work has been somewhat frustrating for the team since establishing the Tyrconnel tunnel in July this year. The stabilisation of the Tyrconnel - Annie Laurie intersection will finally allow the team closer access with the diamond drill to test this exciting area. As per the initial planned strategy, the Tyrconnel access will provide a platform for short and, if successful, multiple intersection points into the first of what the Company believes to be many similar areas of interest, following the results of continued interpretation work done by Cauldron's technical team.

The re-establishment and utilisation of these valuable and irreplaceable historical accesses has a second and crucial benefit of isolating this exploration drilling and any subsequent work from the surface. This ensures that the forested environment, its waterways and the hamlet of Barrys Reef above will not be impacted at all by the exploration work in progress at depth below them. The fundamental and innovative

aspect of this work program can be a paradigm shift and challenges the binary view of mining versus environment and community. The Company believes this demonstrates that, with sensitive planning and continued respectful communication, there can be a resulting satisfactory compromise between providing the required value of resources for the wider community and improved protection measures for the surrounding pristine and tranquil environment.

The planned ground support to secure the original development and access establishment has been slowed down by restrictions to equipment, consumables and inter-state travel related to COVID. The high rainfall over the period has both loaded up and weakened the aging support timbers, further delaying access across the reef to the intended drill site. It has, however, allowed the team to refine the ground support systems that Cauldron planned to use in the re-establishment of the extensive tunnel and shaft network, established in the 1860s, throughout the historically mined area. The earthquake at Woods Point was over 200km away from the operation and, after a brief site-based risk assessment, work was able to recommence after no impact was detected.

The ground support work is expected to continue to mid November 2021, in preparation for the resumption of drilling which will initially focus on the interpreted high-grade area adjacent to the Annie Laurie reef.

This first phase of the drilling program is designed to include 36 holes for ~4,800 metres.

### **WA SANDS PROJECT**

In December 2020, Cauldron announced it had entered into a sale and purchase agreement (**SPA**) to acquire full ownership of a number of river sand leases covering substantial portions of three of the largest river systems crossing the coast in central to northern Western Australia. The licences cover the mouths of the Fitzroy River at Derby, the Ashburton River at Onslow and the Gascoyne River at Carnarvon, with each prospective for sand suitable for the construction and reclamation industries.

Sand is the most consumed natural resource on the planet besides water and by far the largest globally mined commodity. It is estimated that over 50 million tonnes of aggregate (sand and gravel) is consumed annually.

The Fitzroy, Ashburton River and Gascoyne rivers drain a huge area of granitic rocks commencing from its respective headwater all the way to the project area, being the mouth of the river (refer to Figure 4). Every time there is a flooding event somewhere in the catchment area, sand is deposited into the project area, replenishing the supply of sand and re-establishing the river mouth in its original a pristine condition. Some river mouths are being 'swamped' from flooding events, with excessive sand build-up preventing the use of high value infrastructure facilities, which adversely affect the economies of these regional economies.



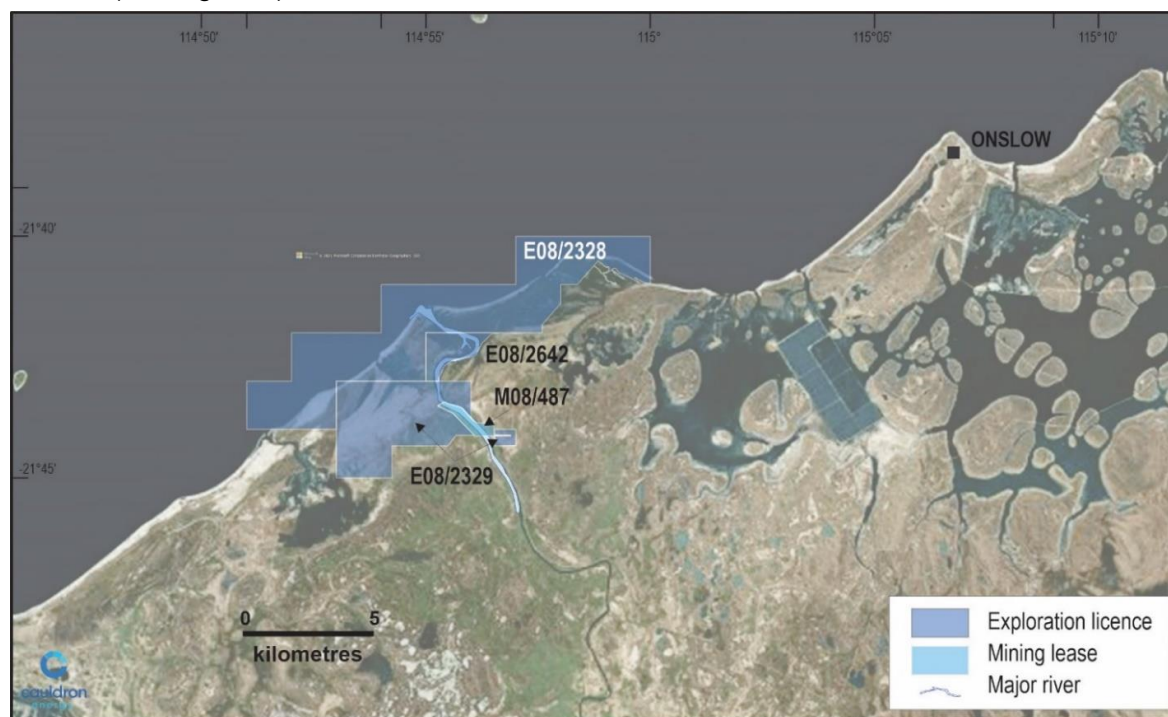
**Figure 4: Cauldron River Sands Project - Catchment Area draining into the project area at river mouth**



Cauldron expects to benefit from its ‘first mover status’ and having early participation in a global growth industry. Global usage of construction sand is estimated to be ten times that of global bulk coal and forty times bulk iron ore (refer ASX announcement 23rd December 2020) with nearly all of the sand used in making concrete in southeast Asia being imported.

### Acquisition Status

The acquisition of the licences is partially complete as at the date of this report, with ownership of four of the eight licences having transferred to Cauldron. The licences transferred are EL08/2328, EL08/2329 and EL08/2462 and miscellaneous licence L08/71 and are located at the mouth of the Ashburton River in Onslow (see Figure 5) below:



**Figure 5: Ashburton River Sand Project – Mining Title (image courtesy of Bing)**

The Project vendors have received a total of 8,000,000 fully paid shares (out of a total of 20,000,000 fully paid shares agreed) in Cauldron in respect of the tenements transferred to date. The balance of 12,000,000 fully paid shares in Cauldron will be issued to the Project vendors once all of the licences are transferred to Cauldron. In addition, the Project vendors are entitled to certain Production Payments and Royalties as set in the Company’s ASX announcement of 22 December 2020.

Cauldron notes that one of the Tenements being acquired, being Mining Lease Application 09/150, was listed as “dead” on the register maintained by the Department of Mines, Industry Regulation and Safety of Western Australia. Cauldron identified this fact as part of its due diligence conducted prior to entering into the agreement. The recording of MLA09/150 as “dead” followed a decision in the Western Australian Supreme Court in the case *Onslow Resources Ltd v The Minister for Mines and Petroleum* [2020] WASC 310, in which the Justice determined that the application for ML09/150 was invalid. Onslow Resources Limited appealed this decision, as was its right, but was unsuccessful. Cauldron made a replacement application which has since passed the objection period without comment.

In addition, Cauldron notes that with respect to Mining Lease 08/487, that on 22 January 2021 proceedings were commenced against Quarry Park Pty Ltd, the Mining Registrar, the WA Minister for Mines and Petroleum and the Company in relation to the validity of ML08/487. As at the date of this report a decision is yet to be handed down in relation to this matter.

Neither MLA09/150 or ML08/487 is considered material to the overall transaction and Cauldron has and will proceed with the acquisition of the remaining Tenements whether or not each, or both, are ultimately

included. If either is excluded the parties are agreed that they will consider an adjustment to the consideration to be paid, or a replacement of either of the tenements.

For detailed information on the WA Sands Project and historical work performed refer Appendix C.

### ***Work Completed During Reporting Period***

In anticipation of the transfer of ownership of the licences to Cauldron, work has commenced on the establishment of a concrete manufacturing business with an agreement reached with Kuuwa Rentals Pty Ltd to lease its T4 Sami Mobile Concrete Batching Plant, capable of producing a range of high strength quality concrete products. Contemporaneously, Cauldron signed an initial one-year property lease with Traditional Owner, BTAC, in Onslow's industrial zone to house the Mobile Concrete Batching Plant.



**Figure 6: T4 Sami Mobile Concrete Batching Plant, Lot 697 Cornish Way, Onslow**

Kuuwa is a hire company based in Onslow having majority ownership by the Buurabalayji Thalanyji Aboriginal Corporation (BTAC). Cauldron plans to further its commercial relationship with Kuuwa by hiring equipment required to operate the plant, following Shire approval. The region is expected to experience an uplift in investment activity from resource companies supporting the two significant off-shore gas projects owned by BHP and Chevron. Cauldron views these as potential markets for concrete sales once the plant has been re-commissioned.

The high summer and autumn temperatures limit effective transport distance of high-quality concrete. Many of the potential projects, currently in planning, require delivery of concrete outside the effective trucking distance from the town of Onslow. The CBP is mobile allowing the facility to be moved to any project site which is expected to commence construction.

The partnership between Kuuwa and Cauldron is a demonstration of Cauldron's commitment to develop the economic interests of the local community. The Company's green low carbon focus can also be explored with 'green concrete' where cement potentially can be partially or completely replaced with alternative commodities with similar pozzalenic properties but without its carbon footprint.

During the quarter, a trial mix test was conducted with the intended local sand and aggregate inputs for the manufacture of concrete with the preliminary results showing that the concrete consistently exceeded the strengths required for high strength marine grade concrete.

## **YANREY PROJECT**

The Yanrey Project comprises a collection of 12 exploration tenements in northwest Western Australia, one of which secures the Bennet Well Uranium Deposit.

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands (less than 100 m downhole depth) in Cretaceous sedimentary units of the North Carnarvon Basin.

The project is prospective of sandstone-style uranium mineralisation capable of extraction by in-situ recovery mining techniques.

For detailed information on the Yanrey Project and historical work performed including the Bennet Well Resource refer Appendix A.

### ***Work Completed During Reporting Period***

No work was conducted during the current quarter.

During the first Quarter of 2021, Cauldron commenced a passive seismic program within its recently acquired Flagstaff tenement, situated approximately 10 kilometres northwest of the Bennet Well Uranium Deposit. The passive seismic program allowed the Company to meet the minimum statutory expenditure required for Flagstaff before the end of its first year of tenure in March. All equipment and personnel for the surveys have been supplied by independent geophysical consultants Resource Potentials Pty Ltd. Unprecedented rainfall during late autumn resulted in flooded ground conditions and the eventual postponement of survey fieldwork. Communications have remained consistent between Company personnel and Resource Potentials to ascertain the changing weather and ground conditions in the Yanrey area. Towards the end of the current reported Quarter, Resource Potentials have reported that ground conditions are now dry, and the surveys can now recommence. Cauldron estimates completion of the surveys within the next Quarter and looks forward to updating the market with the results.

## **URANIUM PRICE INFORMATION**

Uranium does not trade on an open market like other commodities. Buyers and sellers negotiate contracts privately. Prices are published by independent market consultants.

According to Trading Economics, the uranium spot price finished the quarter significantly higher at US\$44.11/lb (30 June 2021: US\$32.23/lb ) having reached a 9-year high of US\$50.88/lb September 2021.

Appreciable fluctuations have occurred since however is the spot price is currently trading at US\$47.20/lb as at the date of this report (Source: Trading Economics).



Source: Trading Economics

According to Trading Economics the rise in the uranium spot price is **as a result of:**

*“the ongoing global energy crisis and the broader transition away from fossil fuels have forced leaders across the world to reconsider nuclear as a clean and bankable source of energy. France, which gets 70% of its electricity from nuclear, announced plans to build multiple new, small nuclear reactors that could be exported to its energy-starved neighbors. At the same time, Japan’s new prime minister Fumio Kishida recently told Parliament that the country needs to restart nuclear power plants, as renewable energy sources like wind and solar will not be enough to power Japan in the coming years. In September, the International Atomic Energy Agency upgraded its projection for nuclear energy and now expects global nuclear-generating capacity to double by 2050.”*

Analysts remain extremely positive about the price outlook in the medium term; with supply expected to experience further tightening and increasing commentary around uranium as a clean energy source and alternative to the burning of fossil fuels.

### **EXPLORATION ACTIVITIES: ARGENTINA**

No work was completed in Argentina. The tenements remain suspended by the local authorities, and the Company is considering its options.

### **EXPLORATION COSTS (ALL PROJECTS) FOR THE QUARTER**

In accordance with the requirements of ASX Listing Rule 5.3.1 the Company advises that during the quarter, the Company expended \$505k on exploration related items (including salaries). The major cost areas were Salaries: \$122k, Drilling and associated costs (equipment hire, consumables, ground control, site preparation, etc):\$183k; Consultants: \$93k; Rents (Department of Mines) and rates: \$35k; accommodation, flights, travel expenses: \$20k, site rents and equipment hire: \$16k; mineral analysis: \$9k; and miscellaneous items: \$27k.

## **PROJECT GENERATION**

As a direct result of the current state government of Western Australia being opposed to uranium mining in Western Australia, field operations at the Yanrey Project have been suspended with the exception of work conducted at Flagstaff (E08/3088), a tenement ending its first year of tenure, and tenements in the north of the entire group. As a consequence, over the past twelve months, considerable effort and resources have been directed at seeking advanced exploration projects in commodities other than uranium, to diversify the company's project portfolio. This culminated in the acquisition of the Blackwood Gold Project and the WA Sands Project.

Despite the recent acquisitions, and a relatively complete and diverse range of projects, Cauldron will remain vigilant to new project opportunities that complement the Company's project portfolio, are value accretive and have the potential to provide early cash flow.

## **CHANGES IN OWNERSHIP INTERESTS OF MINERAL TENEMENTS**

In accordance with the requirements of ASX Listing Rule 5.3.3 the Company confirms that no tenements (including beneficial interests in tenements) were acquired, disposed or lapsed during the quarter.

## **SCHEDULE OF MINERAL TENEMENTS**

Refer Appendix D.

## **CORPORATE**

### **Commencement of Ms Asha Rao as Exploration Manager**

During the quarter, Asha Rao commenced as full-time Exploration Manager for Cauldron. Ms Rao has broad experience in both gold and uranium mineralisation across Canada, Australia and Africa with specific experience in relation to the in-situ recovery (ISR) of uranium.

Miss Asha Rao is a geologist with sixteen years of experience in the minerals industry, having worked in uranium and gold mineral systems in a wide range of geological terranes, countries and resource companies. Her geological experience is broad-based, ranging from early-stage, 'grass-roots' exploration through to 'brownfields', pre-production work. Asha has a proven technical ability in identifying new exploration targets, with a passion for geology, challenging concepts and ideas, and employing innovation to unravel the intricacies of mineral deposits. After being directly involved with the early development of Cauldron's Bennet Well Uranium Deposit (Yanrey Uranium Project), Asha worked as Geology Manager for Boss Energy Ltd at the Honeymoon Uranium ISR Mine where she led the geological team responsible for the significant increase in mineral resources (Feasibility Studies), was responsible for the increase in current exploration target range, and introduced the current successful multi-pronged exploration strategy incorporating innovative and alternative exploration techniques.

Miss Rao has a Master of Earth Science (MESci Hons) Geology degree from the University of Liverpool, United Kingdom, and is a member of both the Australasian Institute for Mining and Metallurgy (AusIMM) and Australian Institute of Geoscientists (AIG).

### **Placement**

On 8 September 2021, the Company completed a placement issuing 35,294,118 new fully paid ordinary shares at 3.4 cents each raising a total of \$1.2 million before costs. Participants in the placement were issued a total of 17,647,059 free attaching unlisted options which are exercisable on or before 30 November 2023, at an exercise price of \$0.05. The unlisted options were issued on the basis of 1 free attaching option for every two shares subscribed for.



## RELATED PARTY PAYMENT INFORMATION

In accordance with the requirements of ASX Listing Rule 5.3.5 the Company advises that during the quarter ended 30 September 2021 the following payments were made to directors of the Company and their associates:

	\$
Executive Chairman (1)	60,000
Non-Executive Director (2)	59,946
Non-Executive Director (3)	15,000
<b>Total</b>	<b>134,946</b>

Notes:

- (1) Fees paid to Mr Simon Youds (Executive Chairman) during the quarter comprised director fees of \$12,000 plus consultancy fees of \$48,000; and
- (2) Fees paid to Mr Jess Oram (Executive Director) were in respect of salary and inclusive of superannuation and annual leave. It is noted that Mr Oram transitioned from an Executive Director to a Non-Executive Director on 16 July 2021.
- (3) Fees paid to Ms Judy Li (Non-Executive Director) were in respect of directors' fees, relating to the months of February 2021 to June 2021 inclusive.

## AUTHORISATION FOR RELEASE

This report has been authorised for release by the Company's Executive Director, Jess Oram.

**End**

For further information, visit [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) or contact:

Cauldron Energy Limited

Ph: (08) 6117 3860

## Competent Person Statements

### Exploration Results

The information in this report that relates to exploration results for the **Blackwood Gold Project** is extracted from reports released to the Australian Securities Exchange (ASX) on 31 August 2020 titled "Victoria's Blackwood - Cauldron's Golden Opportunity", on 15 March 2021 titled "Blackwood Goldfield Project Update", on 25 June 2021 titled "Green Light for Exploration at Blackwood", on 5 July 2021 titled "Blackwood Gold Project Update – Drilling Contractor Engaged" and on 12 July 2021 titled "Highly Experienced Geologist joins Blackwood Team" and are available to view at [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcements released on 31 August 2020, 15 March 2021, 25 June 2021, 5 July 2021 and 12 July 2021.

The information in this report that relates to exploration results for the **Western Australian Sands Project** is extracted from reports released to the Australian Securities Exchange (ASX) on 23 December 2020 titled "Cauldron to Acquire River Sand Interests", on 9 February 2021 titled "Company Update – WA Sands Project" and on 1 June 2021 titled "Cauldron cements position in Ashburton Sand Project" and are available to view at [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcements released on 23 December 2020, 9 February 2021 and 1 June 2021.

### Mineral Resource Estimates

The information in this report that relates to Mineral Resources for the Bennett Well Deposit is extracted from a report released to the Australian Securities Exchange (ASX) on 17 December 2015 titled "Substantial Increase in Tonnes and Grade Confirms Bennet Well as Globally Significant ISR Project" and available to view at [www.cauldronenergy.com.au](http://www.cauldronenergy.com.au) and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that is not aware of any new information or data that materially affects the information included in the original ASX announcement released on 17 December 2015 and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original ASX announcement.

## Disclaimer

This report has been prepared by Cauldron Energy Limited ("Company"). The material contained in this report is for information purposes only. This release is not an offer or invitation for subscription or purchase of, or a recommendation in relation to, securities in the Company and neither this release nor anything contained in it shall form the basis of any contract or commitment.

This report may contain forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Cauldron Energy Limited's business plans, intentions, opportunities, expectations, capabilities and other statements that are not historical facts. Forward-looking statements include those containing such words as could-plan-target-estimate-forecast-anticipate-indicate-expect-intend-may-potential-should or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results to differ from those expressed in this report. Because actual results might differ materially to the information in this report, the Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of the underlying assumptions and uncertainties. Investors are cautioned to view all forward-looking statements with caution and to not place undue reliance on such statements.

The report has been prepared by the Company based on information available to it, including information from third parties, and has not independently verified. No representation or warranty, express or implied, is made to the fairness, accuracy or completeness of the information or opinions contained in this report.

The Company estimates its reserves and resources in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves 2012 Edition ("JORC Code"), which governs such disclosures by companies listed on the Australian Securities Exchange.

## APPENDIX A

### Bennet Well Mineral Resource

A Mineral Resource (JORC 2012) for the mineralisation at Bennet Well was completed by Ravensgate Mining Industry Consultants (Ravensgate) in 2015 and is based on information compiled by Mr Jess Oram, Executive Director of Cauldron Energy and Mr Stephen Hyland, who was a Principal Consultant of Ravensgate. Mr Oram is a Member of the Australasian Institute of Geoscientists and Mr Hyland is a Fellow of the Australasian Institute of Mining and Metallurgy.

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the Ashburton Embayment.

The Bennet Well deposit is comprised of four spatially separate deposits; namely Bennet Well East, Bennet Well Central, Bennet Well South and Bennet Well Channel (Figure 7 and Figure 8).

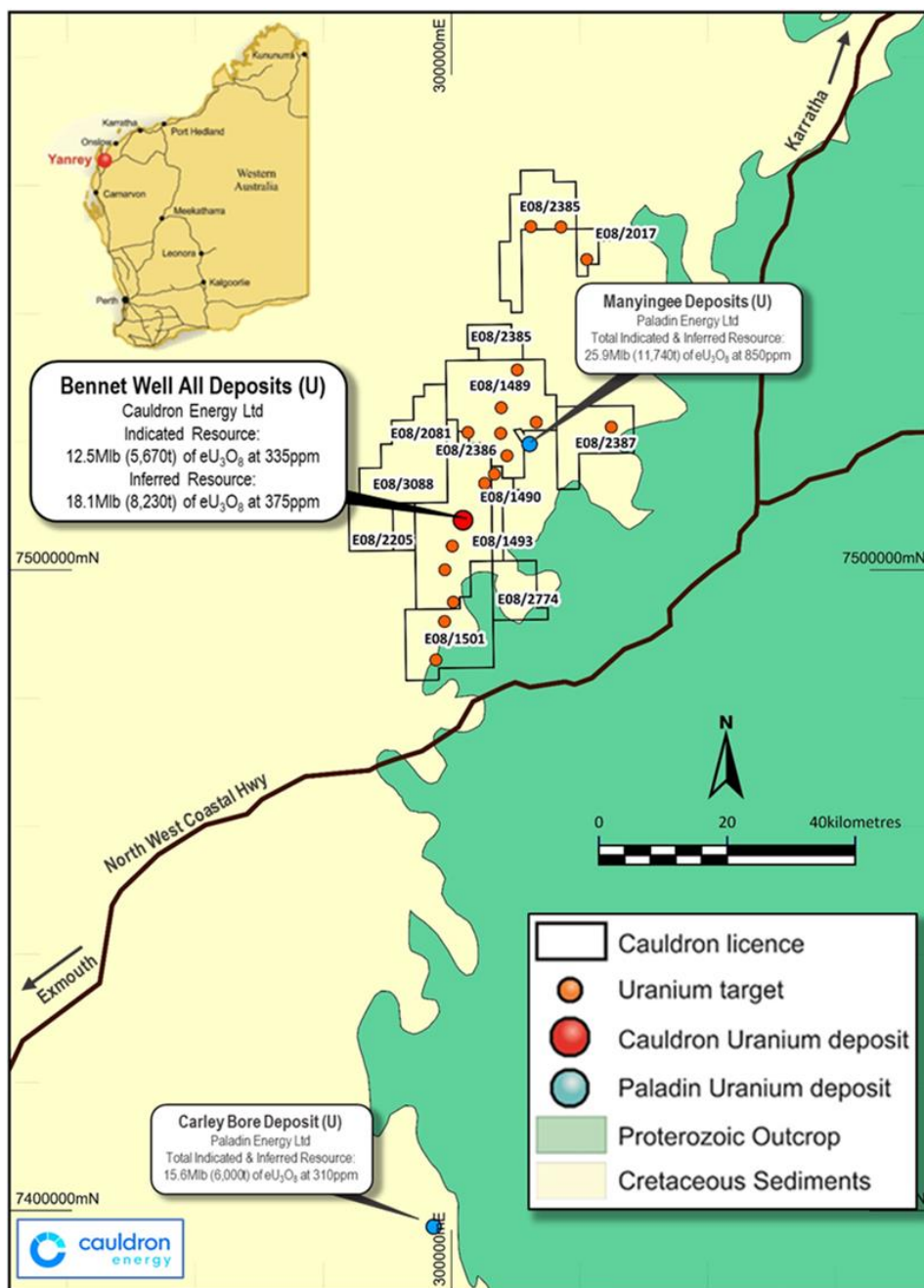


Figure 7 – Location map of the Yanrey Uranium Project and Bennet Well Uranium Deposit

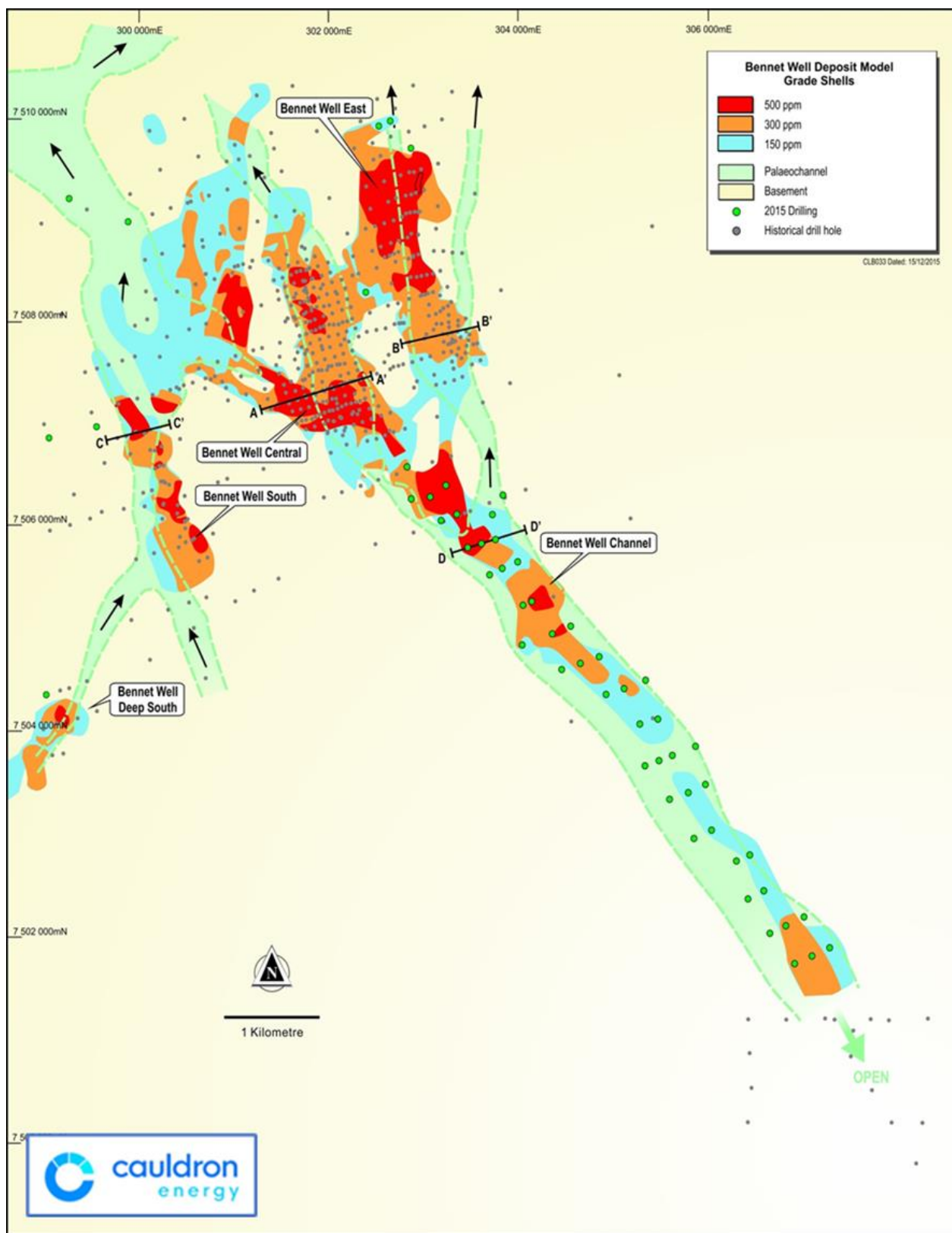


Figure 8 – Bennet Well Uranium Deposit and spatial distribution of domains.

The Mineral Resource (JORC 2012) estimate is:

- Inferred Resource: 16.9 Mt at 335 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 12.5 Mlb (5,670 t) at 150 ppm cut-off;
- Indicated Resource: 21.9 Mt at 375 ppm eU<sub>3</sub>O<sub>8</sub> for total contained uranium-oxide of 18.1 Mlb (8,230 t) at 150 ppm cut-off;
- total combined Mineral Resource: 38.9 Mt at 360 ppm eU<sub>3</sub>O<sub>8</sub>, for total contained uranium-oxide of 30.9 Mlb (13,990 t) at 150 ppm cut-off.

**Table 1: Mineral Resource (JORC 2012) at various cut-off**

Deposit	Cutoff (ppm eU <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm eU <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
Bennet Well_Total	125	39,207,000	355	13,920,000	30,700,000
<b>Bennet Well_Total</b>	<b>150</b>	<b>38,871,000</b>	<b>360</b>	<b>13,990,000</b>	<b>30,900,000</b>
Bennet Well_Total	175	36,205,000	375	13,580,000	29,900,000
Bennet Well_Total	200	34,205,000	385	13,170,000	29,000,000
Bennet Well_Total	250	26,484,000	430	11,390,000	25,100,000
Bennet Well_Total	300	19,310,000	490	9,460,000	20,900,000
Bennet Well_Total	400	10,157,000	620	6,300,000	13,900,000
Bennet Well_Total	500	6,494,000	715	4,640,000	10,200,000
Bennet Well_Total	800	1,206,000	1175	1,420,000	3,100,000

Deposit	Cutoff (ppm U <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
BenWell_Indicated	125	22,028,000	375	8,260,000	18,200,000
<b>BenWell_Indicated</b>	<b>150</b>	<b>21,939,000</b>	<b>375</b>	<b>8,230,000</b>	<b>18,100,000</b>
BenWell_Indicated	175	21,732,000	380	8,260,000	18,200,000
BenWell_Indicated	200	20,916,000	385	8,050,000	17,800,000
BenWell_Indicated	250	17,404,000	415	7,220,000	15,900,000
BenWell_Indicated	300	13,044,000	465	6,070,000	13,400,000
BenWell_Indicated	400	7,421,000	560	4,160,000	9,200,000
BenWell_Indicated	500	4,496,000	635	2,850,000	6,300,000
BenWell_Indicated	800	353,000	910	320,000	700,000

Deposit	Cutoff (ppm U <sub>3</sub> O <sub>8</sub> )	Deposit Mass (t)	Deposit Grade (ppm U <sub>3</sub> O <sub>8</sub> )	Mass U <sub>3</sub> O <sub>8</sub> (kg)	Mass U <sub>3</sub> O <sub>8</sub> (lbs)
BenWell_Inferred	125	17,179,000	335	5,750,000	12,700,000
<b>BenWell_Inferred</b>	<b>150</b>	<b>16,932,000</b>	<b>335</b>	<b>5,670,000</b>	<b>12,500,000</b>
BenWell_Inferred	175	14,474,000	365	5,280,000	11,600,000
BenWell_Inferred	200	13,288,000	380	5,050,000	11,100,000
BenWell_Inferred	250	9,080,000	455	4,130,000	9,100,000
BenWell_Inferred	300	6,266,000	535	3,350,000	7,400,000
BenWell_Inferred	400	2,736,000	780	2,130,000	4,700,000
BenWell_Inferred	500	1,998,000	900	1,800,000	4,000,000
BenWell_Inferred	800	853,000	1285	1,100,000	2,400,000

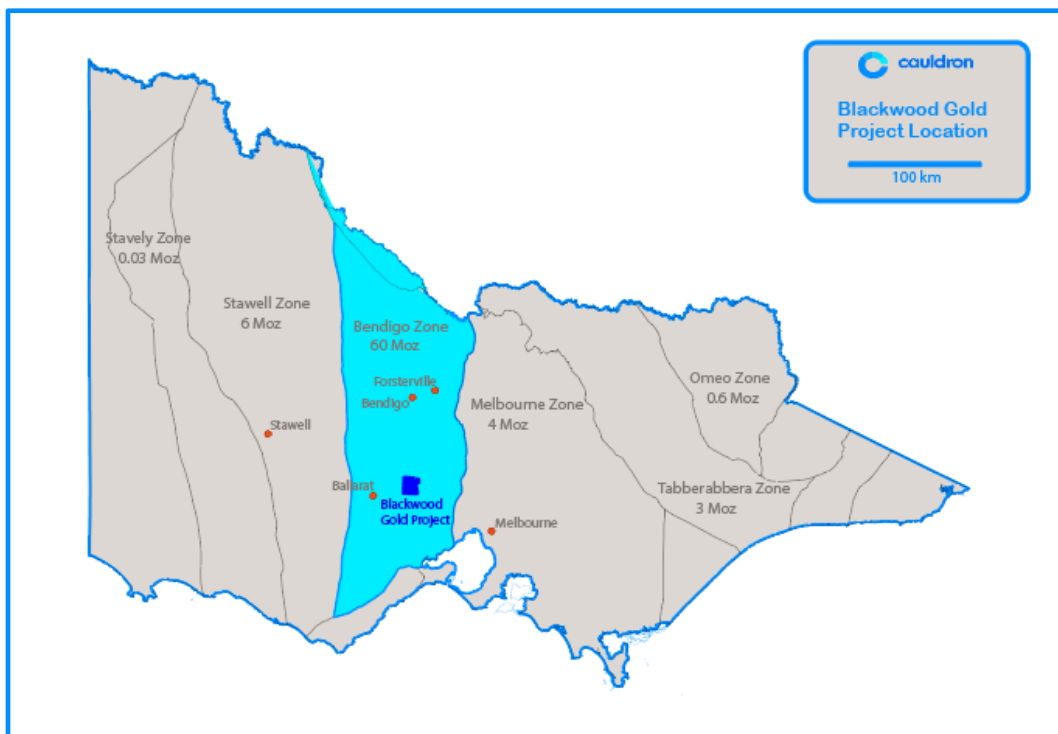
**Note:** table shows rounded numbers therefore units may not convert nor sum exactly



## APPENDIX B

### Blackwood Gold Project

The Blackwood Gold Project comprises Exploration Licence (EL) 5479 covering an area of 24 km<sup>2</sup> located in central Victoria, 40 km east-northeast of Ballarat.



**Figure 9; Blackwood Gold Project – Location Map; Victorian structural zone with historic gold production (modified after GeoVic3); Blackwood and Bullarto South tenements shown in dark blue.**

The Exploration Licence is granted and in good standing with a licence expiry date of 23 March 2024.

Cauldron has an existing 51% joint venture ownership with stepped rights to earn-in to an initial level of 65% and then up to 80% ownership, following the achievement of certain milestones, as follows: CXU to earn 65% of the joint venture following achievement of a Mineral Resource (JORC 2012) containing at least 300,000 ounces of gold; CXU has a further right to earn-in to 80% ownership of the joint venture following the mining production of gold at a rate of at least 10,000 ounces per annum.

The Project is centred on the Sultan Mine which historically produced a little over 73,000 ounces of gold at an average grade of 28 g/t. In addition, the project contains in excess of 250 underground workings; with the largest known producers shown in Table 1, which follows.

**Table 1: Gold production various reef sources in Blackwood Goldfield**

Mine	Worked Depth [m]	Ore Mined [t]	Gold Produced [oz]	Grade [g/t Au]
North Sultan	243		620	
Sultan	231	82,000	73,310	28
Sultana	61		1,530	
Mounters	134	19,070	9,910	16
Homeward Bound	20		450	
Bog Hill	62		3,180	
Annie Laurie	76		270	
Grace Edgerton	62	1,090	2,850	80
British Lion			1,100	

**Source:** Report titled "The Gold Mines of Blackwood" prepared by Erik Norum, Consultant Geologist, August 2018

Note: total reported production in this table is over 93,000 ounces for the larger producers; over 190,000 ounces for field

Most mining activity on reef structures in the goldfield halted at shallow depths. Cessation of mining in many cases was not due to depletion of mineralisation but to other factors such as inability to cope with high ground water flows in the underground workings or inability to raise the capital for development work.

## Geology and Mineralisation of the Victorian Goldfields

The Blackwood Gold Project is located in the highly prospective Golden Triangle.

The “Golden Triangle” is a colloquial term for a highly productive central portion the Victorian gold province, contains the Bendigo (>22.4 million ounces of gold production), Ballarat (>13.1 million ounces of gold production), Castlemaine (>4.2 million ounces of gold production) and Stawell goldfields (>2.6 million ounces of gold production)<sup>4</sup>.

The central portion of the Victorian gold province, one of the world’s most productive and until recently, largely forgotten gold producing areas, accounting for more than 2% of world gold production and 30% of Australian gold production since 1850.

The geology of Victoria is split into twelve distinct zones, each having a distinct stratigraphic, structural and lithological style. Of these zones, the Ballarat (mustard colours), Melbourne (blue colours) and Stawell zones (mauve colours) are historically the most productive for gold (refer to Figure 3).

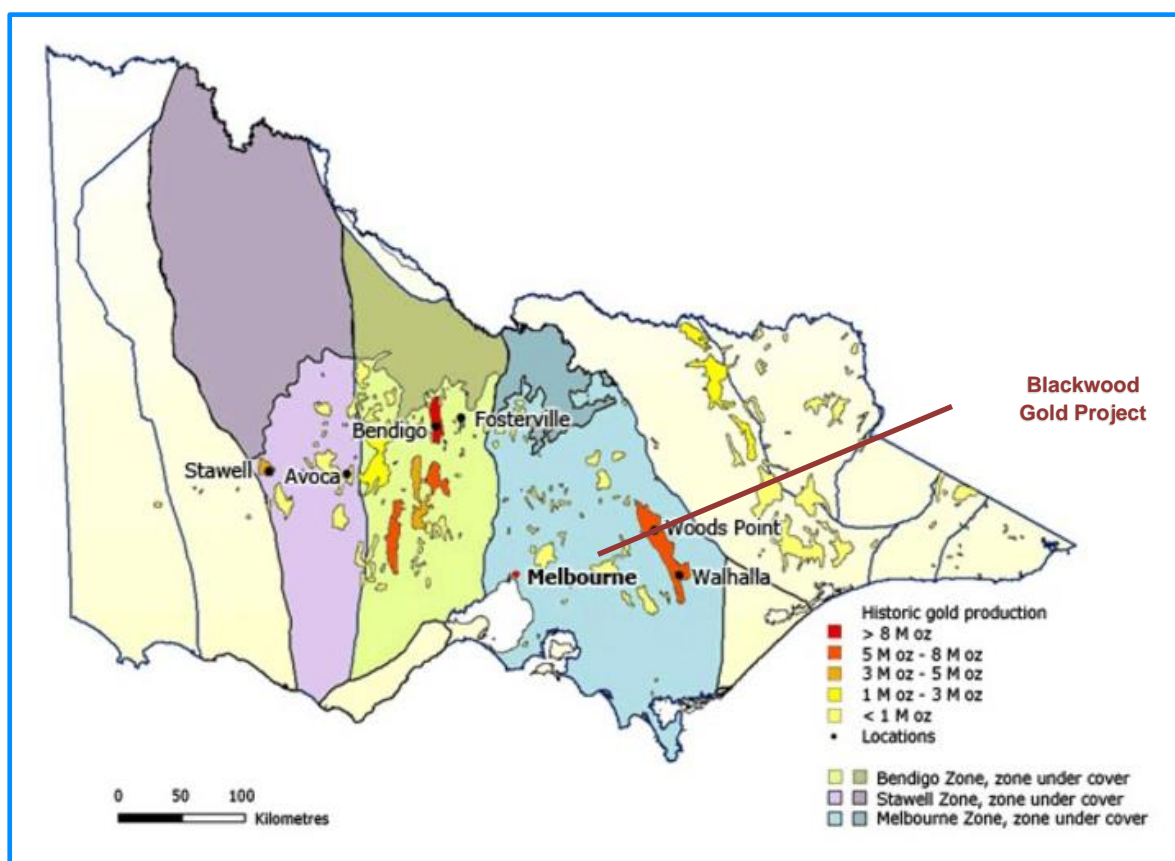


Figure 10; Victorian geological zones with goldfield coloured by production (GeoVic3)

Gold mineralisation is associated with quartz hosted by tightly folded monotonous fine-grained sedimentary rock sequences (interbedded sandstone and siltstone becoming slate). The folds have upright geometry with trends that are oriented north-south. As folding developed the sequence ‘locked-up’ causing differential tension in the deforming and shortening rock sequence. Faulting released the built-up stresses leading the development of zones of weakness having some specific geometry relative to the north-south trending folds. Of the range of fault sets that develop on this ‘locking up’ folded geometry, the high angle reverse fault has a major influence on the development of mineralisation.

<sup>4</sup> **Source:** Department of Earth Resources, Victoria website: [www.earthresources.vic.gov.au/geology-exploration/minerals/metals/gold](http://www.earthresources.vic.gov.au/geology-exploration/minerals/metals/gold)

The combination of folding and faulting of certain geometry allowed dilational openings which localised the deposition of quartz, gold and minor sulphide mineralisation (refer to Figure 4). This process occurred over the regional area causing much of the lode-style mineralisation now known in the Victoria gold province.

Three-dimensional modelling of the Barrys Reef workings (Turner 2019) including the eastern reefs of Annie Laurie and Grace Egerton, as well as the Sultana-Mounters group leads to the following conclusions:

1. Gold-quartz structures are formed by interaction of faults that are sub-parallel to bedding, but when encountering a change in bedding orientation will refract with possible dilation.

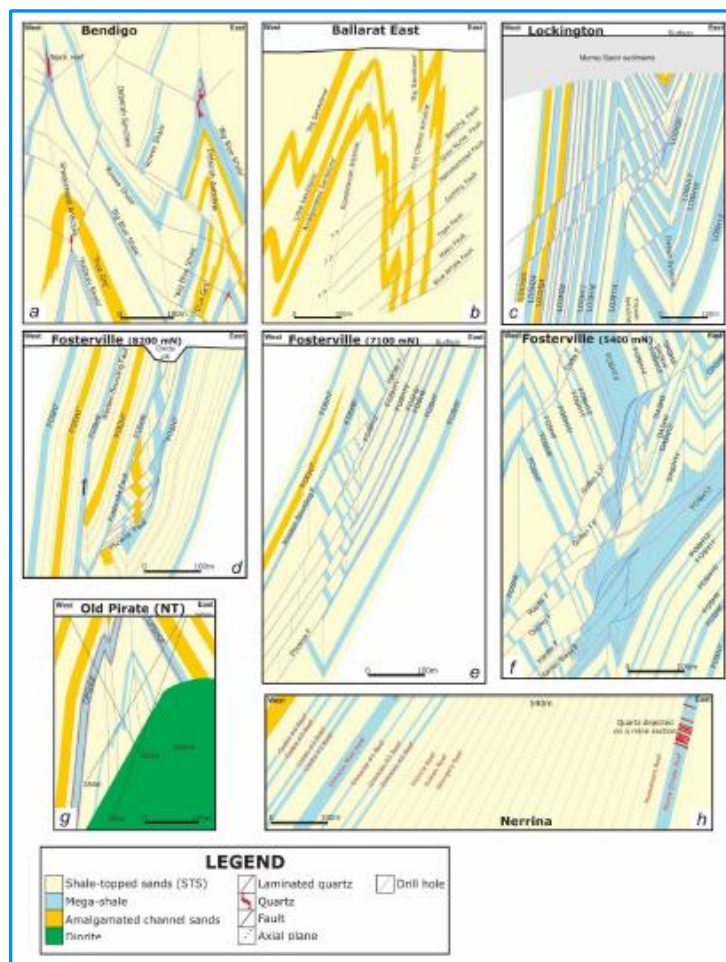


Figure 11; Typical fault intersections with folded sediments in Victoria (Boucher 2017)

2. Mineralised shoots may be controlled by the intersection of faults with bedding, some high-angle reverse faults refract as they pass through changes in competency of host rocks.
3. Reef structures are not always associated with anticlines or synclines.
4. Gold shoots plunge towards the south and dip towards the west; the vertical historic shafts markedly diverged from the shoots with increasing depth and quickly undershot the lode.

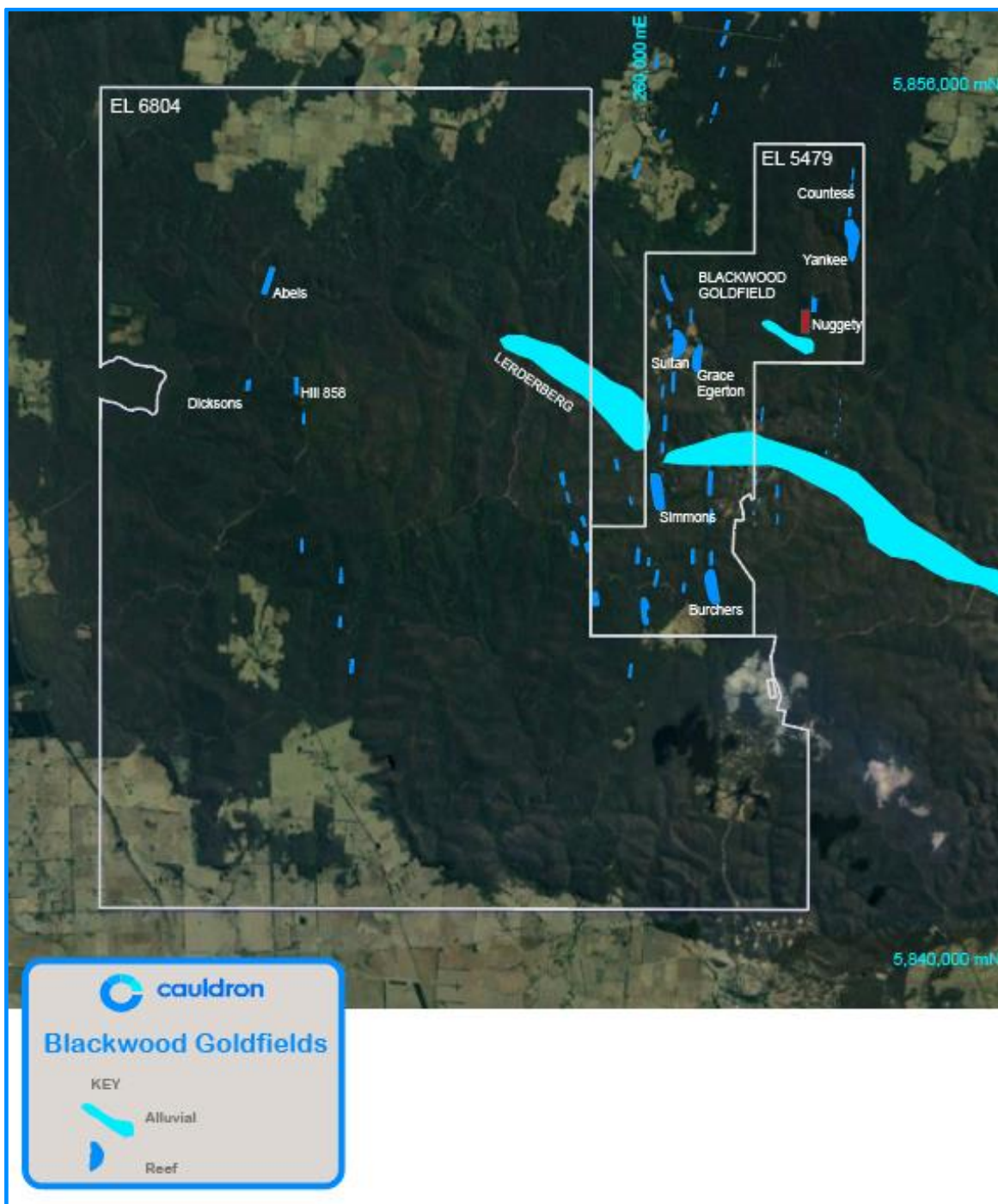
These learnings will be used in drill targeting lode structures after compiling underground mapping data and assays.

### Historical Exploration and Mining Activities

The discovery of gold at Red Hill (near Blackwood) in 1855, led to a rush of prospectors to the goldfields. It is reported that at the peak of mining activity, there were about 13,000 miners along the Lerderberg River and its tributaries.

Alluvial mining quickly gave way to underground hard-rock mining of gold-rich quartz reef structures. More than 90% of the gold produced from the Blackwood goldfields came from the hard rock source.

The largely forgotten Blackwood Goldfield produced significant gold (220,000 ounces pre-1890 from near surface historic mining, with great potential for large tonnage high grade gold, down-plunge and along strike of workings, most less than 100 m below surface.



**Figure 12; Prospect location map and mines of Blackwood Goldfields; blue points show location of mine sites; dark blue denotes location of gold reefs; light blue denotes location of alluvial gold field; image from Google Earth. EL5479 is 51% owned; EL6804 is under application and subject to heads of agreement to acquire 100%**

There is a cluster of mines along parallel but stepped reef structures around the Sultan Mine, including Central, Mounters, Intermediate, Pioneer, Homeward Bound, Western, Edgerton, and Annie Laurie, refer Figure 2, 3 and 4. Often each of these lodes were owned and operated by different companies. The well-capitalised Sultan mine having the deepest workings effectively dewatered the workings of the adjacent mines. When pumping halted at Sultan the adjacent mines lacked the ability to keep their workings dry and ceased operations when their mines flooded. The operations ceased because of flooding as distinct to depletion of ore reserve.



Historical exploration work in the area of the exploration licences includes mineral resource definition drilling, completion of mineral resource estimates (not compliant with JORC 2012 reporting standards), mapping and soil sampling, costeaning and drilling.

Cauldron and independent researchers associated with the vendor has completed a desktop study with preliminary fieldwork and has identified highly prospective target areas for gold mineralisation in the Project area. There is potential for near-term production of gold ore from the mining lease at Nuggety. In addition, there is strong potential for down-dip extensions to mineralisation at Sultan, Barrys Reef East and Yankee, with ability to expand the Target Range and define a Mineral Resource (JORC 2012) of considerable size.

### Work Completed by Cauldron

Work to date has been primarily focussed on the compilation and review of historical data.

On 31 August 2020, the Company released preliminary results upon which it had determined that the Blackwood has the potential to host multiple high-grade gold systems and that there exists within the Project field a near contiguous 3.5km long trend of high-quality gold exploration targets.

Open file data<sup>5</sup> for historic mining demonstrates records production through the 3.5 km mineralised trend (see Figure 5 below) totalling 152,000 oz, at between 16 to 23 g/t gold grade.

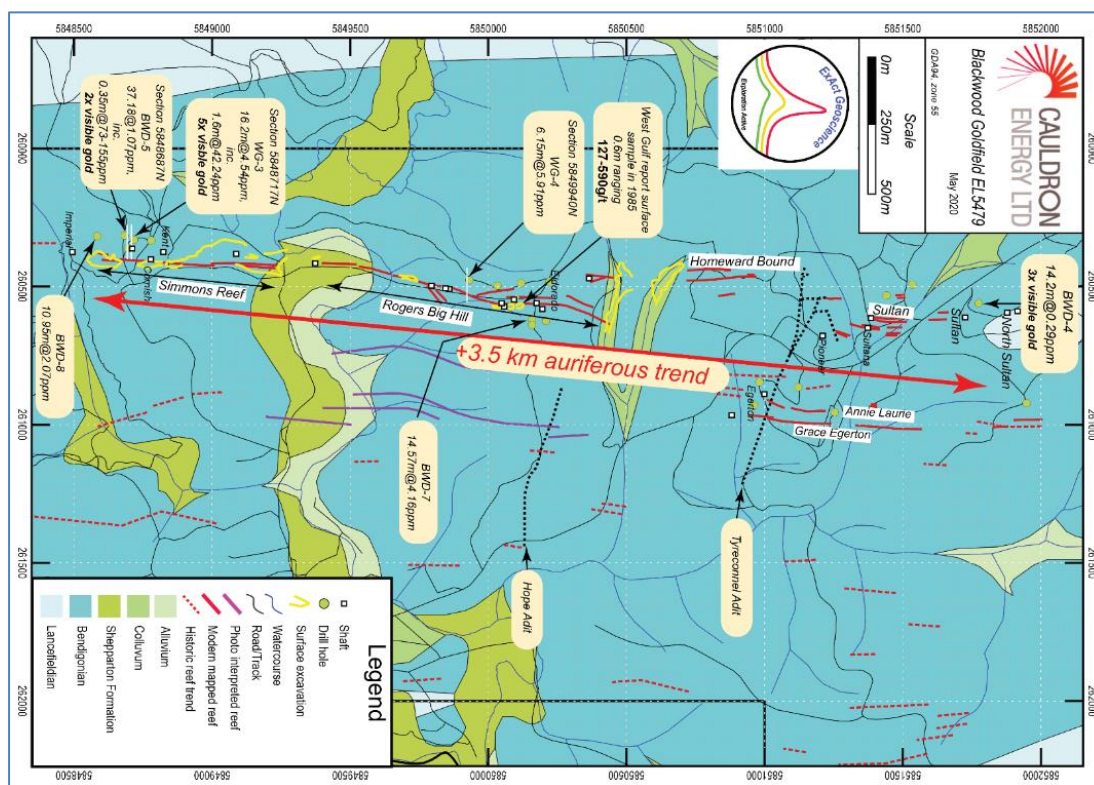


Figure 13; Mine scale geology and prospect map, significant drilling intercepts with historic mining activity

Nearly half the production was made from a single mine, a large proportion of the production grade was from reefs averaging over 20 g/t gold. Drilling and historic mine production records shows these high grades occur throughout the 3.5 km gold-rich trend.

Two listed companies of the past undertook significant exploration activity at The Blackwoods Gold Project; Endeavour Resources Ltd (or "Endeavour") and Western Gulf Oil and Mining Ltd. (or "Western Gulf").

<sup>5</sup> GSV bulletin number 18, 1906.



Endeavour completed surface mapping, underground mapping and sampling, underground refurbishment of historic workings, and diamond drilling; all within the Sultan and Grace Egerton lines of workings and regional along trend exploration drilling.

### **High Grade Nuggety Gold**

Many significant gold drilling intersections for both width and grade are revealed in the historic data. Several greater than 10 m downhole intersections (BWD04, BWD05, BWD07, BWD08, WG03, WG05, and WG09) exist, with many of these having geological descriptions noting the presence of visible gold (BWD04, BWD05, and WG03). It is also significant to note that some other visible gold intersections occur with returned assays of low-grade (less than 1 g/t Au).

Given that mineralisation is nuggety and because sampling was completed on half-core sample splits, we can say that below par assays are interesting and worth following up, especially if they are on-plunge to the defining shoot.

**Table 2: Significant Blackwood diamond drilling intersections.**

Hole number	Length	Au assay (g/t)	Depth (m)	Explorer	Comment
BWD02	1.27	1.37	102.20	Endeavour	
BWD04	14.28	0.29	126.16	Endeavour	Incl. 4x visible gold specs
BWD05	37.18	1.07	114.34	Endeavour	Incl. 0.3 5m @ 73-155 g/t from 130.65 m and 2x visible gold specs
BWD07	3.65	2.89	64.89	Endeavour	
BWD07	14.57	4.16	83.43	Endeavour	Core loss (0.91 m) with prior interval
BWD08	10.95	2.07	132.79	Endeavour	
BWD12	1.53	5.14	96.65	Endeavour	
BWD14	7.50	1.59	187.50	Endeavour	
DDH YC6	1.50	4.60	141.50	Carpentaria	
WG01	1.60	2.40	103.45	Western Gulf	
WG01	4.27	0.21	138.10	Western Gulf	
WG02	0.55	8.99	93.40	Western Gulf	
WG03	16.2	4.54	141.25	Western Gulf	incl. 1.6 m @ 42.2 g/t and 3.8 m @ 1.98 g/t and 3x visible gold specs
WG04	6.15	5.90	142.5	Western Gulf	Incl. 0.95 m @ 17.14 g/t
WG05	10.05	0.54	121.95	Western Gulf	incl. peak value of 0.9m @ 3.84 g/t
WG07	4.80	1.17	109.00	Western Gulf	
WG07	4.55	2.10	137.35	Western Gulf	
WG08	6.95	0.67	105.55	Western Gulf	
WG09	0.90	1.61	N/A	Western Gulf	
WG09	10.35	0.56	N/A	Western Gulf	
WG09	4.00	0.45	N/A	Western Gulf	

The upper expectation for this nuggety style of gold mineralisation is shown by BWD05 returning a drill intercept of 0.35 m @ 73-155 g/t, and WG03 of 1.6 m @ 42.2 g/t, and by WG04 of 0.95 m @ 17.14 g/t. These drilling results were matched with core having geological descriptions noting visible gold, except for WG05.

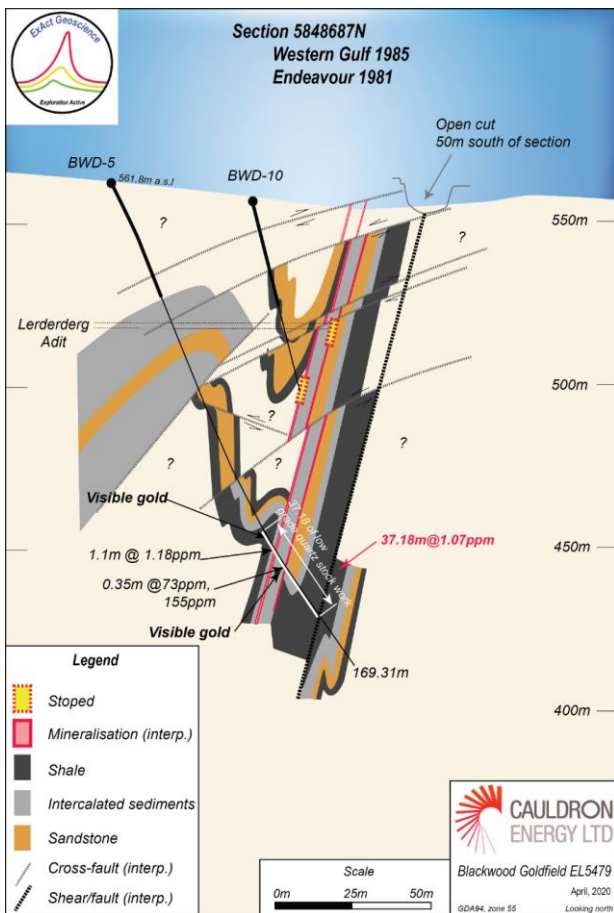
For coarse gold systems such as at Blackwood, it is often difficult to maintain assay accuracy and precision in samples assay due to the 'nuggety' behaviour of gold grains. The assay returns of BWD04, located north of the Sultan Mine, which shows low grade returns of 14.28 m @ 0.29 g/t Au (see Figure 6) but with four specs of visible gold, has the potential to be as significant as the high-grade drill intercepts referred above, and warrants follow-up.

## High Quality Exploration Targets

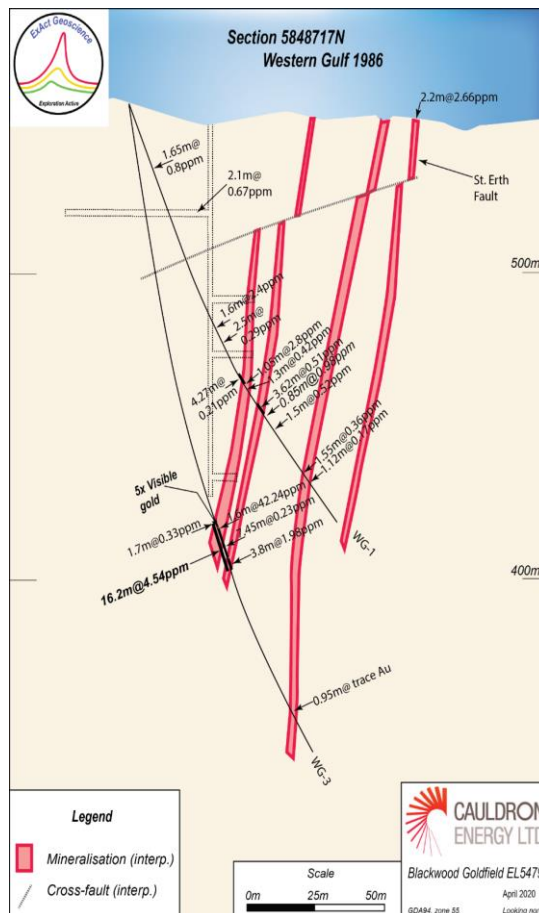
Figure 6 and Figure 7 show along trend profile in the Simmons - Rogers Big Hill - Sultan trend (refer to Figure 5).

These sections are approximately 30 m apart and indicate the true width of mineralisation in the order of 10 m with bulk gold grade likely to be well above 1 ppm (the nugget affect).

Both sections were drilled by different explorers, with visible gold noted in the geological descriptions.



**Figure 14: Interpreted cross-section for diamond drillhole BWD05**



**Figure 15: Interpreted cross-section for diamond drillhole WG03 and WG01**

The section in Figure 7 demonstrates the Rogers - Big Hill – Simmons - Sultan mineralised trend contains the potential for other mineralised structures further to the east of the main lode structure. If this is the case drillholes BWD-5 and BWD-10 will have stopped short of the eastern structures leaving them untested and viable good quality targets. The interpretation of multiple lodes at Homeward Bound and Sultan (Figure 8) also provides for untested lode structures parallel to the main vein.

Overall, there appears to be significant walk up to exploration targets of the same trend, and little exploratory greenfields exploration has been undertaken on other historically mined trends to the east.

On 23 September 2020, the Company released further results of its data compilation and review, noting that it had identified that the central area of the Project (containing the Rogers Big Hill, Eldorado and Homeward Bound prospects) had a geological system like that of Sultan to the north, which produced a little over 73,000 ounces of gold at an average grade of 28 g/t during the 1860's. In addition, it noted that the near surface gold mineralisation at Rogers Big Hill is of bonanza grade and is projecting to depth.

In that release Cauldron noted that there is a parallel stack of reefs which dip west, plunge south. The reefs are open north and south along-strike and open down-plunge towards depth, refer to the long-section of Figure 8.

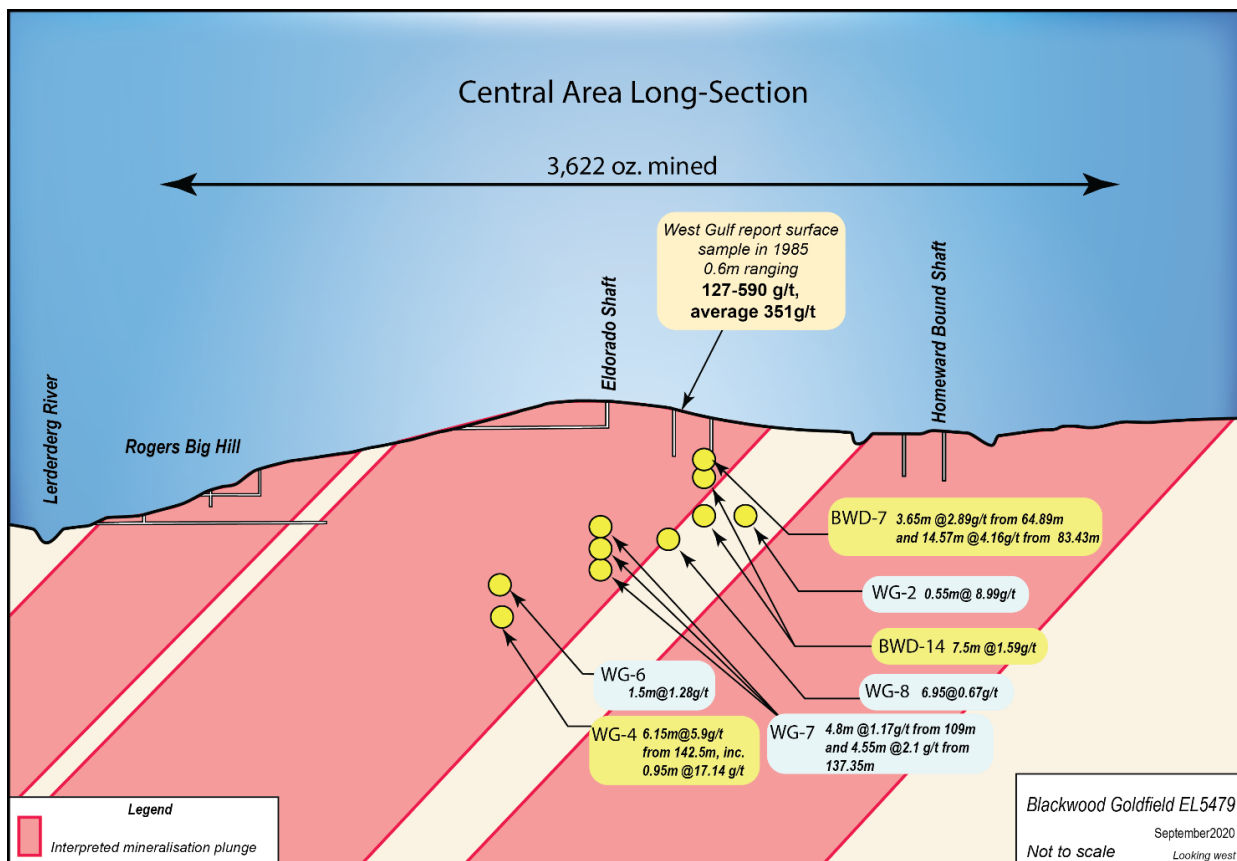
This Central area is referred to as Rogers Big Hill and comprises three historical mining zones namely; Rogers Big Hill, Eldorado and Homeward Bound, refer to Figure 8.

## Prospectivity

Rogers Big Hill is a high-quality advanced exploration prospect evidenced by its high grade and potential for extension.

The potential exists to increase Mineral Resource because the area shows a geological pattern like the Sultan (refer to ASX announcement dated 31 August 2020) where multiple parallel lodes trend in a corridor toward the north and south, reminiscent of those found elsewhere in the Victorian goldfields.

The cross-section in Figure 8 demonstrates the parallel clustering of lodes.



**Figure 16: Long-section of Central prospect area looking west, yellow point shows drilling pierce point with grade**

And the plan of Figure 9 shows the Homeward Bound line of lodes is open to the south into the Rogers Big Hill area. Given the evidence, the linear trend of these lodes can be interpreted to continue within 100 metres west of the Rogers Big Hill lodes.

This exploration target stands alongside the potential provided by the Sultan lines-of-lode to the north and Simmons lines-of-lode to the south.

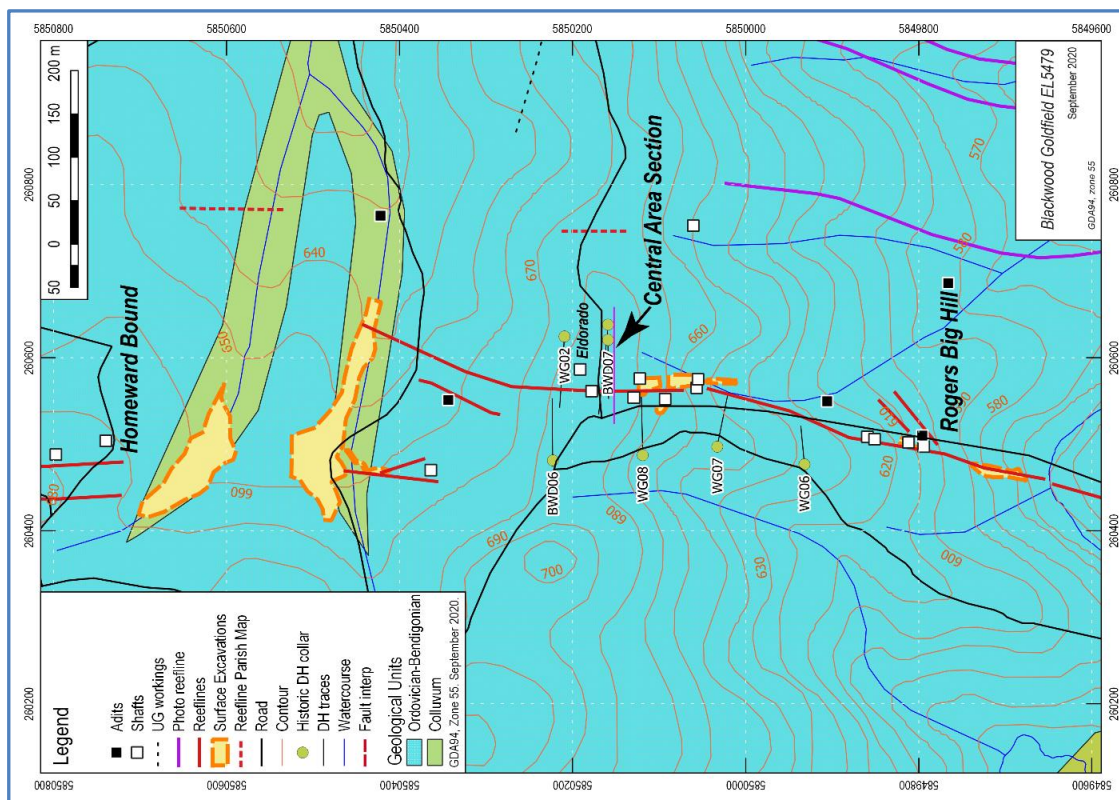


Figure 17: Plan view of Central prospect areas containing Cross-Section N5850158



## APPENDIX C

### WA Sands Project

Cauldron has secured and is in the process of transferring a mining lease and several exploration licences located on three of the largest river systems crossing the coast in central to northern Western Australia. These licences cover the mouths of the Fitzroy River at Derby, the Ashburton River at Onslow and the Gascoyne River at Carnarvon.

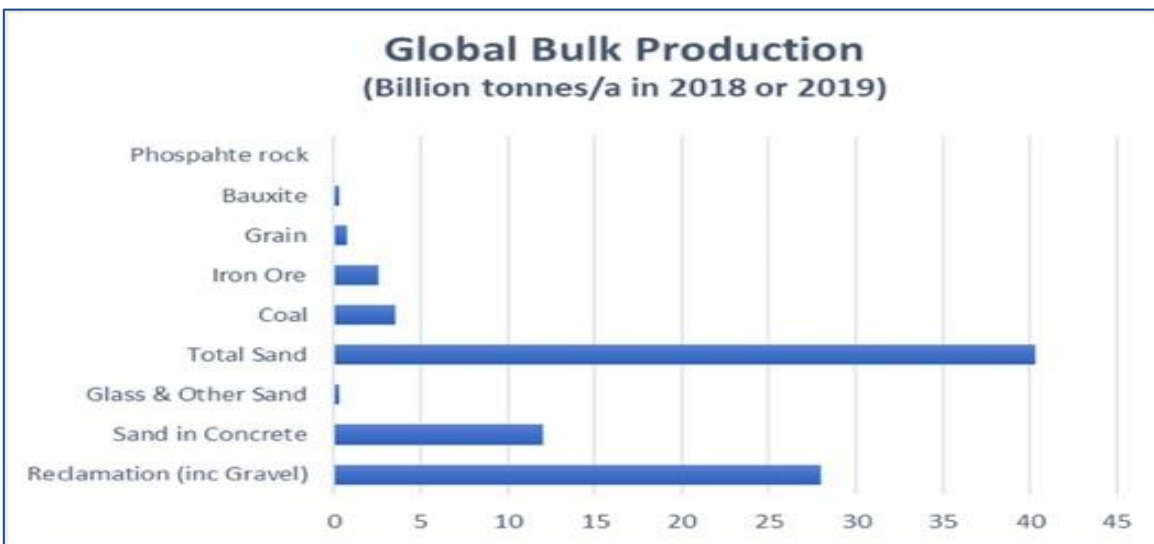
The Fitzroy, Ashburton and Gascoyne rivers drain a huge area of granitic rocks commencing from its respective headwater all the way to the project area, being the mouth of the river (refer to Figure 2). Every time there is a flooding event somewhere in the catchment area, sand is deposited into the project area, replenishing the supply of sand and re-establishing the river mouth in its original a pristine condition. Some river mouths are being 'swamped' from flooding events, with excessive sand build-up preventing the use of high value infrastructure facilities, which adversely affect the economies of these regional economies.



**Map 1: Cauldron River Sands Project - Catchment Area draining into the project area at river mouth**



## Sand as a Resource Bulk Commodity



**Figure 1:** Estimated Global Annual Bulk Commodity Production in billion tonnes (2018/2019) [Source CXU]

Sand is by far the largest globally mined commodity (refer Figure 1), outstripping the shipments of coal, iron ore and grain. Sand is not traded on any recognised exchange, but the United Nations (UN) estimates 40 billion tonnes of sand<sup>6</sup> is mined globally each year. Putting this in context, the next largest bulk commodity, in terms of tonnage moved, is coal at about 3.5 billion tonnes in 2018 (International Energy Agency, IEA).

The global sand market however lacks transparency and due to localised demand and supply relationships has attracted the activities of organised crime gangs in some countries.

The consumption of sand in the developing world is voracious. Sand or silica dioxide (SiO<sub>2</sub>) has in terms of bulk tonnage three main uses. By far, the largest bulk commodity use is in land reclamation and island building, followed by use in the manufacture of concrete. There are increasingly valuable uses for sand or silica in glass manufacture or specialised glass like phone screens for which the cost per tonne exceeds USD\$1000/tonne. The total usages for this third '*minor*' tonnage are about 300Mt or 0.3 billion tonnes per annum globally. This represents the target area for most silica sand miners as the high value, high margin products capable of absorbing high processing and transport costs.

The graph above (refer **Figure 1**) shows the massive tonnage difference estimated for the two major uses (28 Bt/a & 12 Bt/a) in comparison with the higher value Glass and specialised uses. For perspective the other main global bulk commodities annual usage is graphed for comparison. (Refer **Figure 1**)

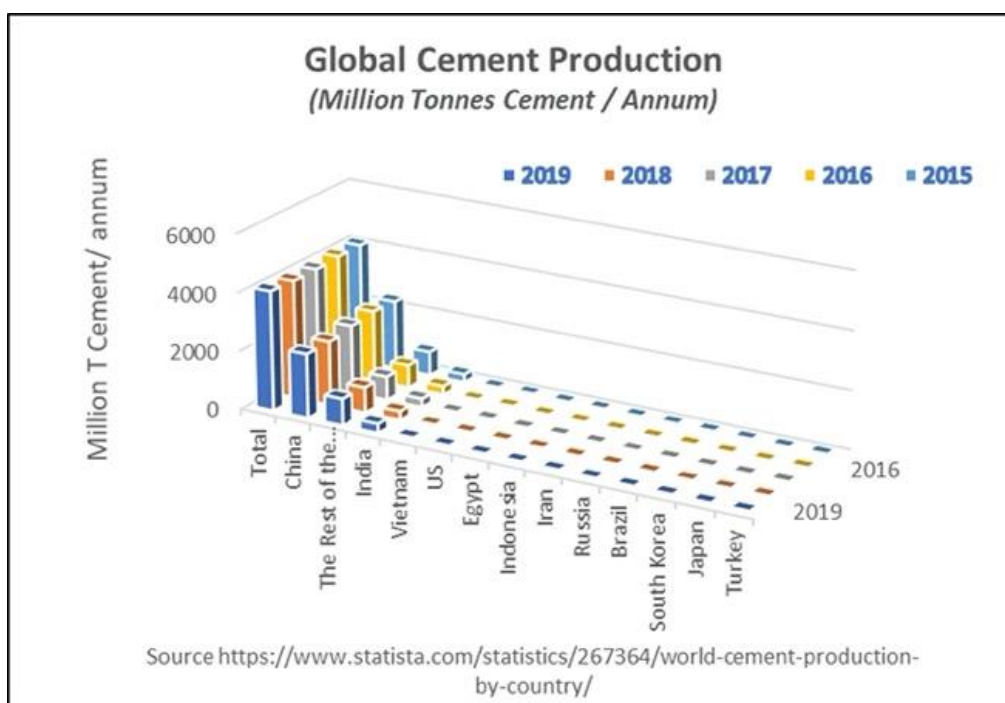
### The Global Construction Sand Market

Cauldron has recognised that the river sand as a bulk commodity is distinct from desert, dune or marine sand which is found in relatively high quantities. Ideally river sand comprises of more angular particles with higher silica content, naturally sized by river action. The reduced period of erosion in rivers as opposed to a the marine or desert environment, leaves a more angular less rounded particle, capable of interlocking and hence offering a greater load bearing capacity. It is this size-sorted resilient angular particle which is much sought after for construction. Recent growth in Asia and globally has created a scarcity in this commodity and an associated demand driven price rise sufficient to justify sea-borne transport.

<sup>6</sup> UN Environment 2019; Sand and Sustainably, Finding new solutions for Environmental Governance of global sand resources

The market investigation completed by CXU, shows global usage of sand per annum is between 35 and 45 billion tonnes comprising 12 billion tonnes in concrete and 25-30 billion tonnes in land reclamation. Precise information on global sand extraction is not available but estimates from the United Nations are 40 billion tonnes per annum<sup>7</sup>.

As an unregulated and unmeasured market, we can only estimate or derive the global production demand of construction sand. This market demand is highly coupled to growth and the associated use of concrete manufacture when mixed with cement and aggregate. Annual production of cement is measured and recorded. In 2019 about four billion tonnes of cement was manufactured and used globally with over 50% used in Asia, consistent with the previous five years (refer **Figure 2**).



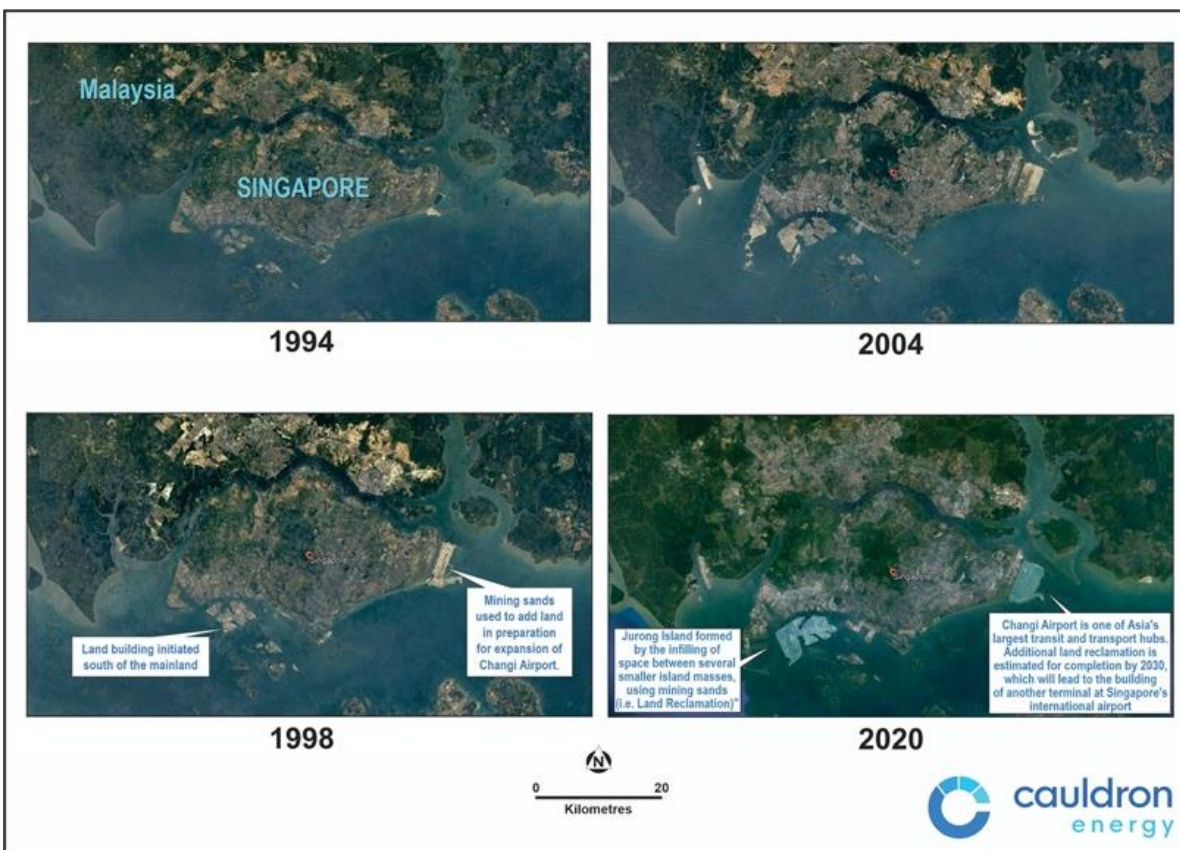
**Figure 2:** Global Cement Production of 4 billion tonnes >50% in Asia or approximately 12 billion tonnes of sand assuming this cement is used predominantly for concrete manufacture consistently over last 5 years

The ratio of cement, sand and gravel used in concrete is about 1:3:6. Approximately three tonnes of sand is needed per tonne of cement in concrete or based on four billion tonnes of annual cement production, an estimated twelve billion tonnes of construction sand is demanded each year globally with over six billion required in Asia alone (refer **Figure 1**).

### **The Global Land Reclamation Sand Market**

The use of sand in the manufacture of concrete is dwarfed by the use of sand for land reclamation purposes. The estimation of the demand for reclamation sand is more difficult to derive given the numerous unregulated extraction sources. The preference for sand used in construction and land reclamation is for the less eroded and more unsorted sand particles found in river and estuarine placement. Marine sand also has a higher proportion of softer less resilient calcium carbonate particles arising in the marine environment from shells and corals which is less desirable for construction.

<sup>7</sup> Driven to Extraction Can Sand Mining be sustainable? Oli Brown, Hoffmann Centre, Chatham House.  
<https://hoffmanncentre.chathamhouse.org/article/driven-to-extraction-can-sand-mining-be-sustainable/>



**Figure 3:** Time related images taken of Singapore harbour over a 25-year period showing the land reclaimed from the harbour shows Jurong Island group now as one island and its growth south plus the expansion west of the land adjacent to Changi into the harbour. Further land reclamation is planned up to 2030 and beyond.

The use of reclamation sand has been estimated by various bodies of work to be as much as 35 billion tonnes dwarfing the next largest bulk commodity mined, coal at approximately four billion tonnes of global production annually. Sand used in land reclamation has a self-draining property and a requirement to withstand a vertical loading. The raw material for this needs to be angular river sand. The more rounded sand particles found in deserts and in the marine environment is not preferred.

### **The Growth in Sand Demand and Mining**

The burgeoning demand in Singapore, Hong Kong and other Asian growth centres has depleted nearby quality sources creating an illegal mining industry in neighbouring countries. The environmental damage and associated involvement of organised crime has brought about sand export bans in Vietnam, Malaysia, Indonesia and Cambodia. It has been widely reported that sand in precious fisheries and river systems have been targeted by organised crime sourcing sand as far away as the Philippines and India.

Singaporean authorities have responded by dictating their sand imports to be supported by the correct regulatory environmental approvals from the dispatch country and has the required Singaporean laboratory tests work to ensure suitability for purpose. For this it has been accepted that this quality will involve a higher price which has opened the market to legitimate and ethical suppliers adhering to local regulatory conditions imposed by their mining jurisdiction. This positive change has created a sustainably sourced sea-borne sand market in Singapore and other Asian countries, which provides the lead for other importing countries to follow.





**Figure 4:** Plan model showing the planned construction on the reclaimed Jurong island in Singapore's harbour depicted in Figure 3. Not only is the land being built on reclamation sand, the concrete used in the building construction planned compromises ~30%-40% construction sand, illustrating the sand requirement for this form of development found in the high growth regions of the world.



A view of 'The World Islands' development seen from the air in Dubai, United Arab Emirates.  
Credit: Chris Jackson/Getty Images.

**Figure 5:** World Island Construction in Dubai using imported international sand after local stocks were depleted.

## **Low Impact Sand Extraction**

The United Nations has identified sand mining as a critical global resource to be managed<sup>1</sup>. The use of extraction measurement and licencing as practiced in the highly regulated Australia resources industry minimises the poor environmental outcomes. This has been identified by the United Nations and adopted by target customer market in Singapore as a requirement for tender on their government sponsored building and construction projects. The exploration licences acquired by the Company are in areas where shipping channels and other infrastructure are at risk of becoming choked with the sand being transported and deposited by these large northern western Australian river systems. Any sand removed from the river estuary and channels is replaced by cyclonic flooding with the frequency of two to three years.

Low environmental impact sand extraction is at a rate that the river replaces the extracted resource. The north of Western Australia has large catchment river systems with frequent significant flooding events driven by monsoonal activity with several occurring in the region each year between October and March. Around Carnarvon the sand deposited during recent flood events has not been able to be removed by maintenance dredging affordable by the local community. Key economic assets of port and shipping plus recently built tourist infrastructure and historical infrastructure is at risk of being lost to the deposited sand. This situation is something the Company is in commercial position to assist with once delayed mining approvals are resolved. A positive outcome in sand removal may provide a significant economic boon to the Carnarvon port as it once again can be the safe and logical anchorage staging stop for the boating community en route from Perth to the renowned fishing waters of Exmouth.

## **Low-Cost Extraction enabling Global Sales**

The Company further understands the sand in river mouths is near-to-transport infrastructure and can be mined using an environmentally sensitive low cost and low-impact extraction method. The extraction systems have been approved and adopted for use in Queensland near the Great Barrier Reef, having significant environmental sensitivity. The use of low impact excavator extraction on barges and barging to self-loading sea-going bulk transport allows these operations in northern Australia to compete on cost with closer-to-market sand sources. The approval process for these planned operations will follow the world recognised mining licencing and environmental approval protocols established in Australia. Prior to the utilisation of these techniques, Cauldron will utilise traditional truck and shovel methods on existing mining licences which recently supplied the sand that was used in the construction of large local resource projects near Onslow.



## APPENDIX D

### Schedule of Tenements

Mining tenements held at 30 September 2021, including tenements acquired, through grant, and disposed of during the quarter:

Tenement reference	Project & Location	Tenement Holder	Acquired interest during the quarter	Disposed interest during the quarter	Interest at end of quarter
E08/1489	YANREY – WESTERN AUSTRALIA	CAULDRON ENERGY	-	-	100%
E08/1490	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/1493	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/1501	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2017	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2081	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2205	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2385	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2386	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2387	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/2774	YANREY – WESTERN AUSTRALIA		-	-	100%
E08/3088	YANREY – WESTERN AUSTRALIA		-	-	100%
L08/71	ONSLOW – WESTERN AUSTRALIA	CAULDRON ENERGY	-	-	100%
E08/2329	ONSLOW – WESTERN AUSTRALIA		-	-	100%
E08/2642	ONSLOW – WESTERN AUSTRALIA		-	-	100%
E08/2328	ONSLOW – WESTERN AUSTRALIA		-	-	100%
E09/1816	CARNARVON – WESTERN AUSTRALIA	ONSLOW RESOURCES	-	-	100%
M09/180	CARNARVON – WESTERN AUSTRALIA		-	-	100%
393/2010	Catamarca, Argentina	CAULDRON ENERGY	-	-	100%
140/2007	Rio Colorado Project - Catamarca, Argentina		-	-	100%
141/2007	Rio Colorado Project - Catamarca, Argentina		-	-	100%
142/2007	Rio Colorado Project - Catamarca, Argentina		-	-	100%
143/2007	Rio Colorado Project - Catamarca, Argentina		-	-	100%
144/2007-581/2009	Rio Colorado Project - Catamarca, Argentina		-	-	100%
176/1997	Rio Colorado Project - Catamarca, Argentina		-	-	100%
232/2007	Rio Colorado Project - Catamarca, Argentina		-	-	100%
270/1995	Rio Colorado Project - Catamarca, Argentina		-	-	100%
271/1995	Rio Colorado Project - Catamarca, Argentina		-	-	100%

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

CAULDRON ENERGY LIMITED

ABN

22 102 912 783

Quarter ended ("current quarter")

30 September 2021

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation		
(b) development		
(c) production		
(d) staff costs		
(e) administration and corporate costs	(239)	(239)
1.3 Dividends received (see note 3)		
1.4 Interest received		
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (provide details if material)	(27)	(27)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(266)</b>	<b>(266)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities		
(b) tenements		
(c) property, plant and equipment		
(d) exploration & evaluation	(505)	(505)
(e) investments		
(f) other non-current assets	(41)	(41)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments	811	811
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>265</b>	<b>265</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,200	1,600
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(72)	(72)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>1,128</b>	<b>1,128</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>	<b>1,127</b>	<b>1,127</b>
4.1	Cash and cash equivalents at beginning of period	375	375
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(266)	(266)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	265	265
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,128	1,128

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	<b>Cash and cash equivalents at end of period</b>	<b>1,502</b>	<b>1,502</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,502	1,502
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>1,502</b>	<b>1,502</b>

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	15
6.2	Aggregate amount of payments to related parties and their associates included in item 2	120
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 <b>Total financing facilities</b>		
7.5 <b>Unused financing facilities available at quarter end</b>		
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(266)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(505)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(771)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,502
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	
8.7 <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	1.95
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: Yes.	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: The Company has not taken any steps as at the date of this report. It will review its funding requirements alongside results from its current drill program at the Blackwood Gold Project and take steps as and when necessary. The Company holds shares in other ASX listed entities which it may sell to supplement its cash reserves. As at the date of this report, the value of its portfolio of shares in other ASX listed entities is worth ~\$700k.	



**Mining exploration entity or oil and gas exploration entity quarterly cash flow report**

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes. On the basis that the Company has a track record of being able to raise equity as and when required and noting that it holds shares in other ASX listed entities which it may sell to supplement its cash reserves. As at the date of this report, the value of its portfolio of shares in other ASX listed entities is worth ~\$700k.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

26 OCTOBER 2021

Date: .....

SIMON YOUNDS

Authorised by: .....  
(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: *Exploration for and Evaluation of Mineral Resources* and AASB 107: *Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.