

31st October 2023

ASX Market Announcements ASX Limited 20 Bridge Street Sydney NSW 2000

# **September 2023 Quarterly Activities Report**

# **Highlights**

- Application for 2 Year extension of the primary term of Vic/P47 Exploration Permit submitted and being assessed by the National Offshore Petroleum Titles Authority (NOPTA)
  - o Emperor Energy confident of a positive response from NOPTA in November
- Independent Petrophysics Review of Judith-1 Well completed confirming:
  - Mobile gas interpreted in Judith Gas Sands 1, 2, 3 and 4
  - Net Reservoir thickness containing mobile gas interpreted as 189.5m
  - Gas Saturations Interpreted as 52%, 64%, 61% and 56% across 4 gas sands.
  - Significant increase in the calculated average formation Permeabilities to 12.3 milli
     Darcy (mD), 24.2mD, 5.2mD and 1.6mD across 4 gas sands
- Independent Quantitative Interpretation AvO (Amplitude vs Offset) Study completed
  - Calibrated AvO modelling offers support for reservoired gas in:
    - Judith Gas sands at Judith-1 well
    - In up-dip fault blocks including the proposed Judith-2 well location
  - Longtom sands below the Total Depth (TD) of Judith-1 also show seismic amplitudes and AVO responses indicative of gas pay.
  - Gas-charged Judith sands indicated in Judith South fault blocks down-dip of Judith-1 and at Kipper-1 where gas was recovered from the Judith Gas Sand 2 equivalent, confirming the presence of gas in these sands
  - Gas is also modelled in Golden Beach and Kipper reservoirs extending from the Kipper Gas field, north-west into Vic/P47
  - The AVO study was fully integrated with recently updated petrophysics and seismic interpretations and calibrated to the Judith-1 and Kipper-1 wells
- Conditional Sales and Purchase Agreement to Acquire 128 Hectares of Gold Mining Leases
  - The Mining Leases are considered highly prospective for gold.
  - The Mining Leases contain historic hand workings of outcropping gold bearing ore.

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Completion of Gold Mining Lease acquisition expected by end of March 2024



#### 1. Application for Extension of the Vic/P47 Exploration Permit Term

On 23rd August Emperor Energy announced that a valid application had been submitted to the National Offshore Petroleum Titles Administrator (NOPTA) for a 24-month extension of the Vic/P47 Exploration Permit Year 1-3 work program commitments, along with a corresponding 24-month extension of the permit term.

During September NOPTA requested additional information as part of the process of reviewing Emperor Energy's application. This additional information was then supplied as required in late September.

NOPTA have confirmed that Emperor Energy's application conforms with all requirements of a valid submission. NOPTA is now proceeding to assess the application and provide its recommendation to the Delegates of the Offshore Petroleum Joint Authorities comprised of the responsible Commonwealth and State Ministers.

Emperor Energy's application for the permit extension has been justified on the basis of a 'Force Majeure' event following the decision in the Federal Court of Australia on 21 September 2022 Tipakalippa v National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) (No 2) [2022] FCA 1121 (Santos Barossa project).

The 2-year extension being applied for will provide the required time to:

- Complete the NOPSEMA approval process for Emperor Energy's planned Judith-2 well.
- Firm up an Exploration Partner for the Judith-2 well
- Contract a Drill Rig with shared mobilisation / demobilisation costs.
- Organise Long Lead Time Equipment for the well.

It is expected that the outcome of the application decision will become available 6-8 weeks after submission of the additional information indicating advice of the result should become available in late November 2023. Emperor Energy is confident of a positive response from NOPTA.

Emperor Energy owns 100% of the Vic/P47 permit in the offshore Gippsland Basin.

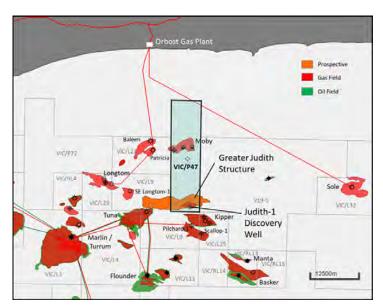


Figure 1: Location of 100% Emperor Energy owned Vic/P47 in the offshore Gippsland Basin (Bass Straight), showing the Judith Gas Field and proximity to Orbost Gas Plant, along with nearby oil and gas fields.

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#### 2. New Petrophysical Evaluation of the Judith-1 Well

On 7<sup>th</sup> September, Emperor Energy announced the results of a new petrophysical evaluation of the Judith-1 exploration well, offshore Gippsland, Victoria, Australia that had been completed by respected industry expert Steve Adams at TPL (The Petrophysicist Limited).

The review was commissioned in response to direct technical questions asked by companies assessing the Judith Gas Field opportunity and a new methodology for reservoir evaluation successfully applied by TPL at other gas field locations in the Gippsland Basin.

Steve Adams quantitatively evaluated the Judith-1 well over the objective sections for porosity, permeability, net reservoir and gas saturations, incorporating a review of the Judith-1 Repeat Formation Test (RFT) data. In summary, the log interpretation shows the presence of mobile gas in the Judith sand units 1, 2, 3 & 4 over a net reservoir thickness of 189.5 m. These gas sands are interpreted as most likely separate gas columns based on pressure data and the log-derived (saturation-height) contacts.

The evaluation confirms the previous analysis of mobile gas columns and gas saturations (Cernovskis, 2022) while providing significant order of magnitude increases in permeabilities over the previous analysis. Permeability calculations are based on correlations to regional core data and have been checked against a re-evaluation of RFT mobilities from the Judith-1 well.

The key outcomes of the study provide further independent analysis and interpretation supporting the presence of mobile gas along with an order of magnitude increase in permeabilities. The reservoir properties derived at higher permeabilities can now be used for further dynamic modelling with an expectation of significantly higher flow rates from gas production simulation.

Zone	Depth	Interpretation	Net Thickness	Porosity %	Av. Permeability mD	Av.Gas Saturation
Gas Sand 1	2370m to 2441m	Mobile Gas	40.5	14.1	12.3	52.2
Gas Sand 2	2489m to 2543m	Mobile Gas	38.8	15.0	24.2	63.8
Gas Sand 3	2626m to 2720m	Mobile Gas	63.1	13.6	5.2	61.1
Gas Sand 4	2778m to 2839m	Mobile Gas	47.1	12.6	1.6	56.4

Table 1: Key outcomes from Judith-1 Petrophysics Evaluation. Results show significant increase in calculated permeabilities of gas bearing sands

#### **Biography - Steve Adams**

Steve has MSC in Physics with First Class Honours. He has been a Petrophysicist since 1987. Following training and an initial 7 years with Shell, he has worked as an independent consultant with clients in Australasia, Asia, Europe,

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the Middle East and elsewhere. Steve has also worked extensively for Reserves Auditing companies including Gaffney-Cline, RPS and RISC. Steve is a member of the SPWLA and the SPE. Steve has more than 20 papers published and is highly regarded in the Industry as a Technical Expert. Steve is a Specialist in Saturation-Height Modelling. His 2016 book "Saturation-Height Modelling for Reservoir Description" has been well received. Steve has been providing petrophysically-focussed training courses since 2001.

### 3. Judith Gas field - Results of Independent Quantitative Interpretation (AvO) Study

On 30<sup>th</sup> October, Emperor Energy announced the results of a new Quantitative Interpretation (AvO) study considering appraisal opportunities in Vic/P47 around the Judith-1 exploration well and the Kipper Gas Field, offshore Gippsland, Victoria, Australia. This work was undertaken by consulting geophysicist Dr Jarrod Dunne (QIntegral Pty Ltd).

The study was commissioned in response to technical questions from companies assessing the Judith Gas field opportunity and has been carried out using methods developed and applied by QIntegral in many basins around the world. This study leverages Dr Dunne's extensive experience working with several operators in the Gippsland Basin, including Nexus Energy who developed the neighbouring Longtom Gas Field.

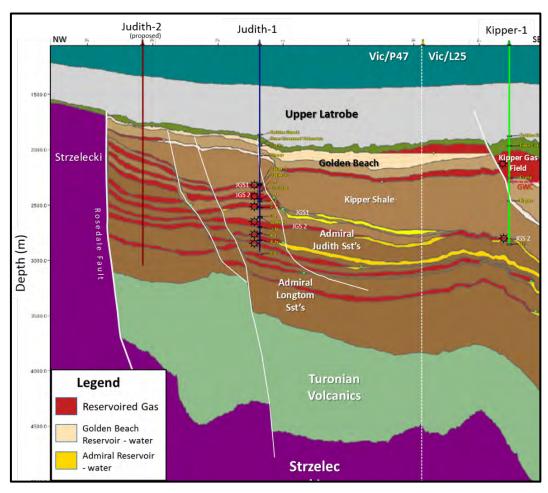


Figure 2: Composite Seismic Line: Judith – Kipper Gas Field showing AvO-modelled reservoired mobile gas in stacked Judith Gas Sands, underlying unpenetrated Longtom reservoirs & in Kipper and Golden Beach reservoirs.

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AvO modelling was performed using QIntegral's Quiacito™ geophysical modelling software, which is designed to interpret and model seismic data along 2D profiles by characterizing the AvO response of hydrocarbon porefill in structural and stratigraphic traps. Among many other functions, the software performs Gassmann fluid substitution to simulate the effect of hydrocarbons on seismic data (**Figure 3**).

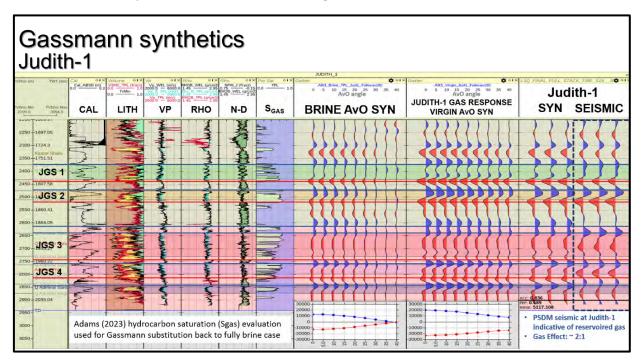


Figure 3: Judith-1 Gassman Synthetics showing brine saturation case and seismic response to gas saturation in Judith reservoirs. Gassmann synthetics and PDSM seismic indicative of gas on seismic at Judith-1.

Quiacito simultaneously models both the amplitude and time/depth behaviour of a prospect to answer critical questions such as:

- Should I expect hydrocarbon AvO anomalies, and what do they look like?
- Does my interpretation and evaluation of a prospect explain the geophysical data?

The modelling effort was underpinned by a regional rock physics database for the targeted Golden Beach and Admiral formations, which accounts for burial effects on the rock properties that control seismic reflections. This database also helped to overcome data gaps in the wireline logging at Judith-1, such as the lack of a shear sonic log.

High quality seismic-well ties were also conducted to calibrate the seismic response to nearby well control. The modelling was calibrated to match the TPL (2023) petrophysical evaluation by Steve Adams which provided reasonable interpretations of gas-water contacts in each sand based on the available formation pressure database (Table 2).

Steve Adams evaluated Judith-1 over the objective sections for porosity, net reservoir and gas saturations. His log interpretation shows the presence of **mobile gas** in Judith sand units 1, 2, 3 and 4 over a net reservoir thickness of 189.6 m. Gas is interpreted as most likely reservoired in separate gas columns based on pressure data and the log-derived (saturation-height) contacts. The evaluation by Steve Adams confirms previous analysis of mobile gas columns and gas saturations by Cernovskis (2022) while providing an **order of magnitude increase in permeabilities** over the previous analysis.

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		From	To	Gross		N/G	phit	Vsh		Sgas	HCPV	
Well	Unit	(mRT)	(mRT)	(m)	Net (m)	(v/v)	(v/v)	(v/v)	Kis (mD)	(v/v)	(m)	Comment
Judith-1	Upper	2330.0	2343.0	12.9	11.6	0.89	0.18	0.19	182.6	0.42	0.89	Residual gas - water mobile
Judith-1	Unit_1	2391.0	2462.3	71.3	40.5	0.57	0.14	0.36	12.3	0.52	2.98	Mobile gas
Judith-1	Unit_2	2489.0	2543.0	53.9	38.8	0.72	0.15	0.35	24.2	0.64	3.71	Mobile gas
Judith-1	Unit_3	2626.0	2720.4	94.5	63.1	0.67	0.14	0.35	5.2	0.61	5.24	Mobile gas
Judith-1	Unit_4	2777.5	2839.0	61.6	47.1	0.76	0.13	0.39	1.6	0.56	3.34	Mobile gas
					189.6							

Table 2: Judith-1 petrophysical analysis (Adams, 2023)

The Gassmann AvO synthetic Virgin Case (second synthetic panel) in **Figure 3** shows reservoirs logged to a gas substitution response found in Judith-1. A 2:1 increase in seismic trace amplitudes (an AvO effect), represented by a low-impedance (soft) blue peak at the top of a gas-filled reservoir and a high-impedance (hard) red trough at the base, is modelled in gas-filled reservoirs compared to reservoirs filled with brine (first synthetic panel). This seismic amplitude increase at the top and base of gas sands is comparable with what is observed on the PSDM seismic at Judith-1.

The study includes an AvO assessment using Quiacito™ of the prospectivity up-dip and down-dip of Judith-1 using a composite full-stack PSDM seismic line that runs NW – SE from the Northern Terrace through the proposed Judith-2 well location, Judith-1 well, Kipper-1 well and across the Kipper Gas Field (**Figure 4**). The modelling evaluated each of the known Judith gas sands penetrated by Judith-1; possible deeper Longtom sands below the Total depth (TD) of Judith-1; and Kipper and Golden Beach sands that extend from the Kipper Gas Field at Kipper-1 north-west into Vic/P47.

The Quiacito™ synthetic seismogram model with gas pay assigned in each sand down to most-likely assessed gaswater contacts is shown in **Figure 5**. Judith sands in fault blocks up-dip and down-dip of Judith-1 display low impedance AvO characteristics of gas-filled sands. Calibration of these amplitudes suggests that some of these sands might vary in their thickness away from Judith-1. Deeper Longtom Admiral Formation sands were also modelled and show bright amplitudes and AvO that could reflect the presence of gas in extensively developed sand units.

The presence of gas is also indicated in Kipper and Golden Beach sandstones that extend to the NW of the Kipper Gas Field into Vic/P47.

The presence of gas in the various modelled reservoirs is detailed in **Figure 2**. The mapped extent of the AvO Shuey Fluid Factor response for Judith Gas Sand 2 (JGS 2) away from the modelled Composite Seismic Section across Vic/P47 is shown in **Figure 6**.

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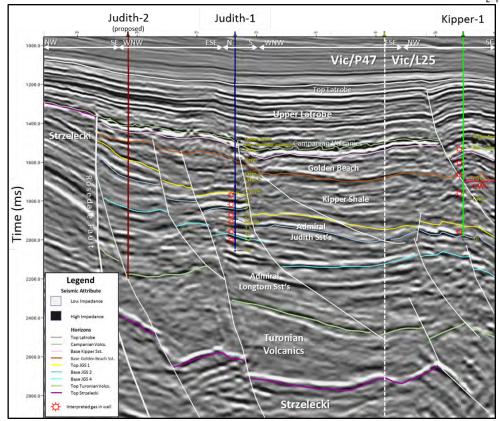


Figure 4: Composite seismic line: Judith – Kipper Gas Field with interpretation

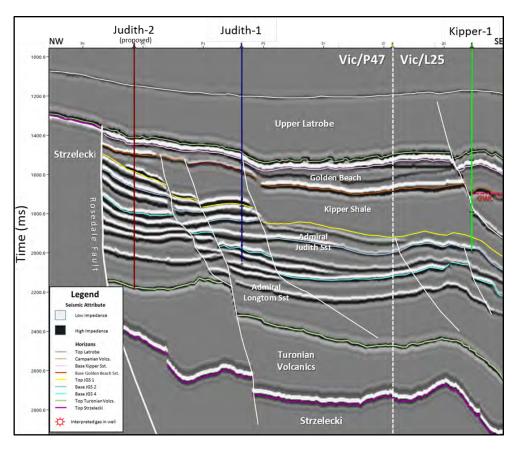


Figure 5: Composite seismic line: Judith – Kipper Gas Field.

Quiacito™ synthetic seismogram model with gas pay.

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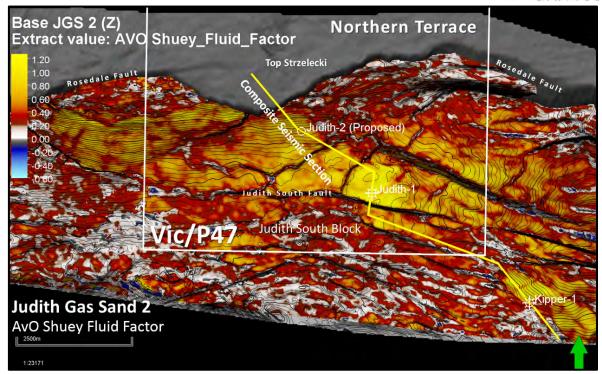


Figure 6: Judith Gas Sand 2: AvO Shuey Fluid Factor gas indicator.

### **Biography - Jarrod Dunne**

Jarrod holds a Ph.D. in Geophysics from Melbourne University and is an active member of the ASEG. He has more than 25 years' working experience in seismic amplitude interpretation, reservoir characterization and seismic processing, applied throughout the world, having worked for Shell, Woodside and many smaller oil companies, including his current part-time role as Group Geophysical Specialist at Karoon Energy. He has remained actively involved in R&D throughout his career: publishing more than 30 papers and public reports; developing software; and through university collaborations. In 2018, he founded QIntegral providing specialist geophysical services, software, and training to a wide client base in the petroleum, minerals and gas storage sectors.

**Disclaimer:** the geophysical work described in this announcement is interpretative in nature and subject to the usual risks and disclaimers associated with the exploration and exploitation of petroleum resources.

# 4. Sales and Purchase Agreement to Acquire 128 Hectares of Gold Mining Leases

On 16<sup>th</sup> October Emperor Energy Limited (ASX:EMP) (**Emperor Energy**) advised that it has executed an Asset Sale and Purchase Agreement to acquire 3 Mining Leases with a total area of 128 Hectares located between Townsville and Charters Towers City in North Queensland, Australia.

The 3 Mining Leases are located 60km Southeast of Townsville, Northeast Queensland and are accessible from Townsville by approximately 70km of sealed road and then approximately 40km of well-maintained gravel road.

The Mining leases are ML 1352 (Caesar No 2), ML 1353 (Caesar No 1) and ML 1439 (Great Fanning No 3) referred to as the Great Caesar Mining Leases. A plan of the Mining Leases is shown in Figure 8.

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#### **Historical Reports**

The most comprehensive historical report available relating to the 3 Mining Leases was compiled in 1997 by Mr R C W Pyper, BSc., FAusIMM, Consulting Geologist (**Pyper**). At that point in time Pyper had 34 Years experience as a Geologist and had been in Consulting Practise for 14 Years. Pyper states that his report "has been prepared in accordance with the code and guidelines for the Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports (The Valmin Code) as adopted by AusIMM 17<sup>th</sup> February 1995".

## Extracts from Pyper's report state as follows:

"The Great Caesar Prospect is a gold bearing structure which was mined for gold last century and again in the 1930s. It comprises 3 Mining Leases. These cover portion of a 10 - 15 km gold bearing structure along which some open cut mining has already taken place at Far Fanning."

"The Mines at Great Caesar were first worked for Gold late last Century (1890s) but records are scarce. Some 52 tonnes (t) of ore are recorded as being mined in the 1930s at an average grade of 16 grams per tonne gold (g/t Au) and 40 tonnes of tailings were treated, apparently at a grade of 27 g/t Au."

"A number of companies inspected the old workings in the mid-seventies, but no useful work was carried out until Marathon Petroleum Australia Ltd (Marathon), commenced work in 1980. Marathon carried out a photogeological study and an orientation geochemical study. Their research concluded that the mineralisation was probably associated with the late phase differentiates of the Kitty O'Shea intrusion which had not been unroofed, and that the mainly covered terrain and strongly disseminated mineralisation from the orientation soil geochemistry results constituted a prime exploration target, possibly more interesting than Far Fanning."

"In late 1981, Aberfoyle Exploration Pty Ltd completed mapping and rock chip sampling and put in nine costeans across the mineralisation. The rock chip sampling returned assays in the range 1.2 to 19.9g/t Au.

"In 1984, Pegmin Ltd undertook rock chip sampling along the Great Caesar lode obtaining samples ranging from 1.3 g/t Au to 38.2 g/t Au. They also sampled Caesar North, The Tunnel and Heart Stop Hill areas which had not been previously sampled."

"At Caesar North, 250m north of the Great Caesar lode a gold bearing breccia can be traced by manganese staining and pit exposures. A rock chip sample from here returned 1.5m @ 18.4 g/t Au."

"At Heart Stop Hill an alteration system was located extending for 300m and containing quartz and gossanous material and stockworks in arkose. Rock sampling gave values from trace to 119.5 g/t Au"

"At the tunnel, a similar zone to Heart Stop Hill trends Northwesterly and dips 45 degrees Southerly. A sample from workings here returned 124.6 g/t."

"The Leases cover gold bearing siliceous and tectonically brecciated sandstones and fractured siltstones. Within these are gossanous quartz zones and stringer veins, striking at about 80 degrees and dipping 35 degrees north and which extend for some 550m with widths commonly around 3-5m. The sequence includes a set of repetitive mineralized beds which, in surface exposure, are quartz veined, variably gossanous, clayey and brecciated."

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"The gold is associated with minor silver, lead and copper sulphides and with abundant pyrite and arsenopyrite. A broad zone of potash alteration surrounds the main mineralization with indicated grades from surface sampling of 7.8 g/t Au and 8.1 g/t silver (Ag). Wall rock of veined, siltstone breccia averaged 2.9 g/t Au."

# **End of Extracts from Pyper's Report**

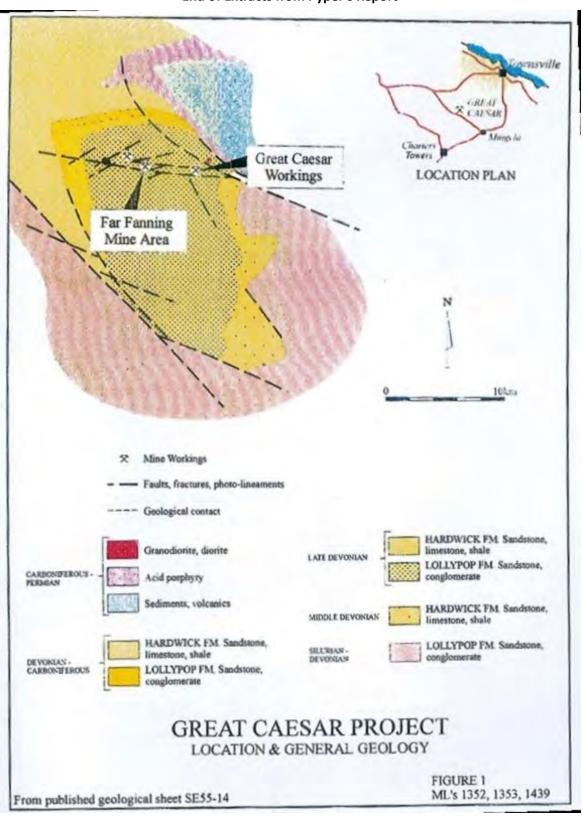
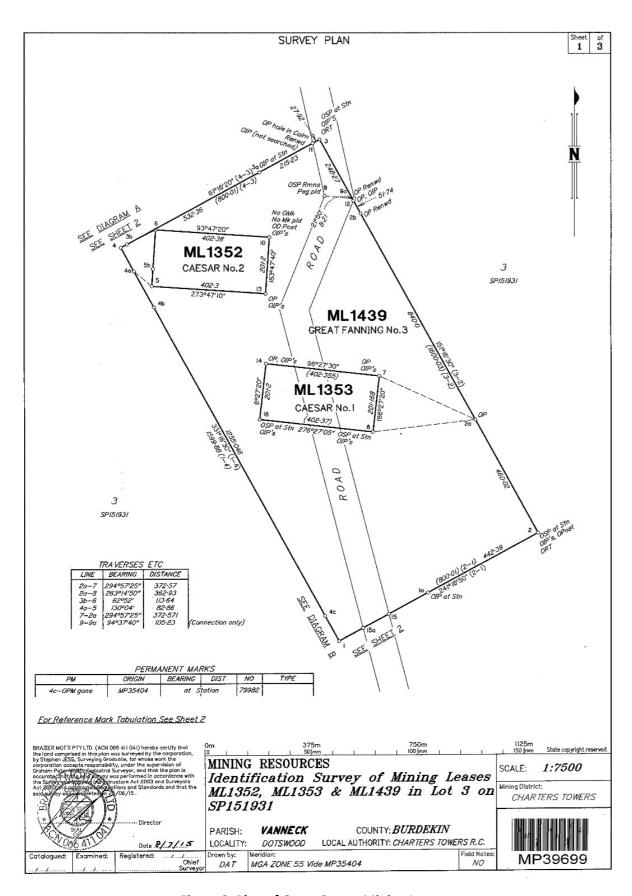


Figure 7: Location Map of Great Caesar Workings from Pyper's Report

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**Figure 8: Plan of Great Caesar Mining Leases** 

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#### **Status of Mining Leases**

The 3 Mining Leases have been privately held since 1991. There has been no exploration work carried out since the 1980s.

The Leases are in good standing and have an expiry date of October 2027 and may be renewed on application.

An Environmental Authority is in place for the Mining Leases and requires compliance with *The Eligibility Criteria* and standard conditions for mining lease activities – version 2 effective 31 March 2016. If required, an application may be made to vary the standard conditions or apply for a Site-Specific Environmental Authority

There are no mapped environmentally sensitive areas or restrictions on the Mining Leases.

Native Title has been extinguished on the Mining Leases as the leases were originally granted prior to the commencement of the Native Title Act 1993 (Cth).

#### **Competent Persons Statement – Gold Mining Leases**

The information in this report, as it relates to historic exploration results from the Great Caeser mineral deposits is based on information compiled and/or reviewed by Mr K S Weston, who is a member of the Australian Institute of Geoscientists (AIG). Mr Weston is a consultant to the Company and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been 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 Weston consents to the inclusion in this report of the matters based on the information in the form and context in which they appear.

#### **JORC Reporting Tables**

JORC Reporting Tables are included at the end of this announcement.

#### **Emperor Energy Strategy For Gold Leases**

Emperor Energy's intention is to progress towards completion of the acquisition of the Mining Leases subject to completion or waiver of the Conditions Precedent in the Asset Sale and Purchase Agreement. It is expected that the acquisition of the Mining Leases and final settlement will be completed prior to 31st March 2024.

It is intended that an Exploration Program will then be progressed throughout 2024 with a complete soil geochemistry survey followed by a series of drilling programs aimed at establishing a JORC compliant Resource Statement.

Emperor Energy considers that subject to a successful exploration campaign this project provides an opportunity to deliver early cash flow to the company through open pit mining and processing as it continues with its flagship Judith Gas Field Project.

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#### 5. Resources

The Judith Gas Field gas resources provided in the tables below are 100% attributable to the Vic/P47 Exploration Permit, of which Emperor Energy holds 100% equity.

The resource statement was provided on 13 October 2022 by consulting geologists 3D-GEO who have apportioned resources in accordance with the Society of Petroleum Engineers' internationally recognised Petroleum Resources Management System (SPE-PRMS 2018). Resources are allocated to both the Golden Beach and Emperor Sub-groups.

Table 2.1: Summary of Contingent Resources for Judith area of VIC/P47 (3D-GEO, ASX release 13 October 2022) (Probabilistic determination)

		Con	tingent Resou	irces
Judith Gas I	Discovery	Low 1C	Best 2C	High 3C
GIIP	Bcf	204	322	463
Sales gas	Bcf	118	198	297
Condensate	MMbbl	1.7	2.9	4.6

Table 2.2: Summary of Prospect Prospective Resources for Judith area of VIC/P47 Judith and Longtom Sandstones (3D-GEO, ASX release 13 October 2022)

		Unris	sked Prospective Res	ources
Greater Judith Area		P90	P50	P10
Judith Deep	Bcf	56	100	157
West	Bcf	102	166	244
Central	Bcf	46	430	859
North	Bcf	36	208	410
North East	Bcf	67	379	701
North West	Bcf	18	126	293
South	Bcf	21	218	788
Total	Bcf	346	1627	3452

Table 2.3: Summary of Lead Prospective Resources for Judith area of VIC/P47 Kipper and Golden Beach Sandstones (3D-GEO, ASX release 6 April 2022)

	<b>Unrisked Prospective Resources</b>			
Greater Judith Area	P90	P50	P10	
New Resource Statement				
Kipper Sand	Bcf	194	314	478
Upper Golden Beach Sandstone Bcf		70	143	247
Sequence	BCI	143	247	
Lower Golden Beach Sandstone	Bcf	9	21	40
Sequence	BCI	9	21	40
Golden Beach Basal Sand	Bcf	83	144	231
Total	Bcf	356	622	996

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Source: EMP ASX Release 13 October 2022.



#### 6. Finance

At the end of the quarter, 30th September 2023, the Company's cash balance was \$53,084. The company paid \$49,253 to directors and management for the quarter ended 30th September 2023 for administration and exploration expenses.

Emperor Energy incurred exploration costs related to its activities of \$108,655 during the 30 September 2023 Quarter.

On 31st October 2023, the Company announced that it had raised \$300,000 capital from professional, sophisticated and other exempt investors through the issue of 37.5 million new fully paid ordinary shares in the Company (New Shares) at an issue price of \$0.008 per New Share. The Company will also seek shareholder approval at the Company AGM on Thursday 30 November 2023 to approve a further placement of \$50,000 from company directors participating in the raise at an issue price of \$0.008 per New Share.

A summary of the cash flow for the quarter is attached in the attached Appendix 5B report.

#### 7. Tenement Holding Summary

Below is a list of the tenements held by Emperor Energy Limited as of 30<sup>th</sup> September 2023:

Petroleum Tenement	Location	Beneficial Percentage held
Vic/P47	Victoria	100% / Operator
Backreef Area	Western Australia	100% / Operator

Emperor Energy did not acquire or dispose, farm in or farm out, or incur any change of beneficial interest in any petroleum tenements during the quarter.

During Emperor Energy has entered into a conditional sales and purchase agreement to acquire 3 gold mining leases in North Queensland, Australia. It is expected that this acquisition will be completed in March 2024.

We thank shareholders and our team for their ongoing support and welcome any questions they may have.

This announcement has been authorised for release to the market by the Board of Directors of Emperor Energy Limited.

Yours faithfully

**Carl Dumbrell** 

**Company Secretary** 

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Julle

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# Competent Persons Statement – Petroleum Resources Consents

The Resources information in this ASX release is based on, and fairly represents, data and supporting documentation supplied in an Independent Technical Specialist's Report (ITSR) prepared by 3D-GEO Pty Ltd. The preparation of this report has been managed by Mr Keven Asquith who is Chairman and Director of 3D-GEO Pty Ltd.

Mr Asquith holds an Honours BSc. Geological Sciences – University of Western Ontario, Canada, 1978, and a Diploma in Project Management from the University of New England, Australia - 2000. Mr Asquith has over 35 years' experience in the sector and is a long-time member of the American Association of Petroleum Geologists (AAPG).

Mr Asquith is a qualified Petroleum Reserves and Resources Evaluator as defined by ASX listing rules. The Resources information in this ASX announcement was issued with the prior written consent of Mr Asquith in the form and context in which it appears.

3D-GEO Pty Ltd is an independent oil and gas consultancy firm. All the 3D-GEO staff engaged in this assignment are professionally qualified engineers, geoscientists or analysts, each with many years of relevant experience and most have in excess of 25 years of industry experience.

3D-GEO was founded in 2001 to provide geotechnical evaluations to companies associated with the oil and gas industry. 3D-GEO services domestic and international clients with offices in Melbourne and Madrid.

Reserves and resources are reported in accordance with the definitions of reserves, contingent resources and prospective resources and guidelines set out in the Petroleum Resources Management System (PRMS) approved by the Board of the Society of Petroleum Engineers in 2018.

The Independent Technical Specialist's Report (ITSR) has been prepared in accordance with the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports 2005 Edition ("The VALMIN Code") as well as the Australian Securities and Investment Commission (ASIC) Regulatory Guides 111 and 112.

SPE-PRMS Society of Petroleum Engineer's Petroleum Resource Management System - Petroleum resources are the estimated quantities of hydrocarbons naturally occurring on or within the Earth's crust. Resource assessments estimate total quantities in known and yet-to-be discovered accumulations, resources evaluations are focused on those quantities that can potentially be recovered and marketed by commercial projects. A petroleum resources management system provides a consistent approach to estimating petroleum quantities, evaluating development projects, and presenting results within a comprehensive classification framework. PRMS provides guidelines for the evaluation and reporting of petroleum reserves and resources.

Under PRMS "Reserves" are those quantities of petroleum which are anticipated to be commercially recoverable from known accumulations from a given date forward. All reserve estimates involve some degree of uncertainty. The uncertainty depends chiefly on the amount of reliable geologic and engineering data available at the time of the estimate and the interpretation of these data. The relative degree of uncertainty may be conveyed by placing reserves into one of two principal classifications, either proved or unproved. Unproved reserves are less certain to be recovered than proved reserves and may be further subclassified as probable and possible reserves to denote progressively increasing uncertainty in their recoverability.

"Contingent Resources" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, but the applied project(s) are not yet considered mature enough for commercial development due to one or more contingencies. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development or gaining access to existing infrastructure or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the level of certainty associated with the estimates and may be sub-classified based on

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project maturity and/or characterized by their economic status.

"Prospective Resources" are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both a chance of discovery and a chance of development. Prospective Resources are further subdivided in accordance with the level of certainty associated with recoverable estimates assuming their discovery and development and may be sub-classified based on project maturity.

The estimated quantities of petroleum that may potentially be recovered by the application of future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

#### JORC Tables related to Purchase and Sales Agreement for Gold Mining Leases

# JORC Code, 2012 Edition - Table 1 Report Template

# **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>The nature, quality and accuracy of sampling techniques used is unclear as the data reported has been extracted from an Independent Expert Report compiled in 1997.</li> <li>The Independent Expert Report refers to sampling results from 1980, 1981 and 1984.</li> <li>The original sampling data is not available.</li> <li>The sample results are historic estimates prepared pre 1989 which is when the JORC Code was introduced as Appendix 5A of the ASX Listing Rules.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	No drilling results
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	No drilling results
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support	<ul> <li>No details available on logging techniques used for surface</li> </ul>

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		LIMITED
Criteria	JORC Code explanation	Commentary
	<ul> <li>appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	chip samples
Sub- sampling techniques and sample preparatio n	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	No details available
Verificatio n of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	No details available
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Location of data points is known to be generally within the areas of historic workings on the Great Caesar Leases.</li> <li>No details available</li> </ul>
Data spacing and distributio n	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	No details available
Orientatio n of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	No details available

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Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	No details available
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No details available

# **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Mining Leases ML 1352         (Caesar No 2), ML 1353         (Caesar No 1) and ML 1439         (Great Fanning No 3)         collectively referred to as the         Great Caesar Mining Leases,         located in Queensland,         Australia.</li> <li>Currently owned by RPD TSV         Pty Ltd (Seller), with an         executed Asset Sale and         Purchase Agreement with         Emperor Energy Ltd (Buyer)</li> <li>100% owned by RPD TSV Pty         Ltd</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Exploration carried out by Marathon Petroleum 1980, Aberfoyle Exploration Pty Ltd 1981 and Pegmin Ltd 1984.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Leases cover gold bearing siliceous and tectonically brecciated sandstones and fractured siltstones. Within these are gossanous quartz zones and stringer veins, striking at about 80 degrees and dipping 35 degrees north and which extend for some 550m with widths commonly around 3-5m. The sequence includes a set of repetitive mineralized beds which, in surface exposure, are quartz veined, variably gossanous, clayey and brecciated."</li> <li>"The gold is associated with minor silver, lead and copper sulphides and with abundant pyrite and arsenopyrite. A broad zone of potash alteration surrounds the main mineralization</li> </ul>
Drill hole Informatio	<ul> <li>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:</li> </ul>	No details available

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		LIMITED
Criteria	JORC Code explanation	Commentary
n	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregatio n methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No details available
Relationsh ip between mineralisa tion widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	No details available
Diagrams	<ul> <li>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.</li> </ul>	No details available
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.	Rock chip sampling from Heart Stop Hill satellite deposit returned values up to 119.5 g/t gold, averaging 1 g/t gold
Other substantiv e exploratio n data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No details available
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	It is intended that an     Exploration Program will then be progressed throughout 2024 with a complete soil geochemistry survey followed by a series of drilling programs aimed at establishing a JORC compliant Resource Statement

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**Board of Directors** 

Carl Dumbrell

Phil McNamara

Nigel Harvey

**Company Secretary** 

Carl Dumbrell

**Geological Consultant** 

Geoff Geary

**Project & Business Development Consultant** 

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Malcolm King

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Sydney NSW 2000

**Share Registry** 

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Level 5, 126 Phillip Street

Sydney NSW 2000

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# Appendix 5B

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

Name of entity	
EMPEROR ENERGY LIMITED	
ABN	Quarter ended ("current quarter")
56 006 024 764	30 September 2023

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(109)	(109)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(49)	(49)
	(e) administration and corporate costs	(141)	(141)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	1
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	18	18
1.7	Government grants and tax incentives	-	-
1.8	Other	-	-
1.9	Net cash from / (used in) operating activities	(280)	(280)

2.	Ca	sh flows from investing activities	
2.1	Pay	yments to acquire or for:	
	(a)	entities	-
	(b)	tenements	-
	(c)	property, plant and equipment	-
	(d)	exploration & evaluation	-
	(e)	investments	-
	(f)	other non-current assets	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(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)	-	-
2.6	Net cash from / (used in) investing activities	-	-

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
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	-	-
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)	-	-
3.10	Net cash from / (used in) financing activities	-	-

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	333	333
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(280)	(280)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Page 2

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	Cash and cash equivalents at end of period	53	53

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	53	333
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	53	333

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	49
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
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.

7.	Financing facilities  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.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	Total financing facilities		
7.5	Unused financing facilities available at qua	arter end	
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.		itional financing

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(280)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(280)
8.4	Cash and cash equivalents at quarter end (item 4.6)	53
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	53
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0 19
		0.19

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.

- 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: EMP's operating costs are in line with its budget expenditure, the company will maintain its current work program.

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: On 31 October 2023 EMP raised \$300,000 via a placement from professional, sophisticated and other exempt investors through the issue of 37.5 million new fully paid ordinary shares in the Company (**New Shares**) at an issue price of \$0.008 per New Share.

The company will replenish its 7.1 & 7.1A capacity to raise further capital at its AGM on 30 November 2023.

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, the company cash flow is in line with budgeted expenditure. The company will continue with its ongoing work program.

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**

- 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.

Date: 31 October 2023

Authorised by:

Carl Dumbrell, Director/ Company Secretary (Name of body or officer authorising release – see note 4)

Shulle

#### Notes

- 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.