27 April 2023

## **ASX ANNOUNCEMENT**

**ASX: TMG** 

# Quarterly Activities Report for the Period ended 31 March 2023

Trigg upgrades Lake Throssell Indicated SOP Mineral Resource to 8Mt as it establishes amenability of innovative technology for production of SOP feed salts.

## **Highlights**

## Lake Throssell Sulphate of Potash (SOP) Project, WA

- Updated Mineral Resource Estimate (MRE):
  - o Indicated: 8Mt SOP at 4,690mg/L potassium (K) (or 10.5kg/m³ K<sub>2</sub>SO<sub>4</sub>)
  - o Inferred: 5.3Mt SOP at 4,865mg/L K (or 10.8kg/m³ K₂SO₄)
  - O Total MRE: 13.3Mt SOP at 4,760g/L K (or 10.6kg/m<sup>3</sup> K<sub>2</sub>SO<sub>4</sub>)

#### **Evaluation Studies**

- Bench-scale test-work using an innovative new technology has shown promise in obtaining highquality feed salts more quickly and efficiently than conventional evaporation techniques.
- The salts achieved targeted potassium concentration required for feed into a Sulphate of Potash (SOP) processing plant and were less complex than those produced from conventional evaporation, delivering potential benefits for process design.
- Results show potential for producing SOP more efficiently and reliably than via conventional evaporation.
- The technology is also able to capture some of the water that would otherwise be evaporated for re-use for the processing plant and other on-site requirements.

### **Macro Environment and SOP Market**

 The Sulphate of Potash price eased to around US\$780/t on weakening demand and reduced sentiment, but remains above the long-term price assumption used in the Lake Throssell Scoping Study (US\$550/t).

#### **Corporate**

- Cash at the end of the Quarter of \$1.8 million.
- In light of the difficult prevailing global market conditions, the Board has determined that the
  operational focus for the coming period will be on progressing Research and Development (R&D)
  activities relating to the alternative processing technology for potassium-rich feed salts, with all
  other technical and project approval work to be put on hold.
- Prudent cost-saving measures adopted to preserve value for shareholders, including downsizing
  of staff and termination of the office lease, with additional measures to be considered if required.



**Trigg Mining's Managing Director, Keren Paterson, commented:** "The March Quarter was a productive period for Trigg, with the delivery of an updated Mineral Resource Estimate for our flagship Lake Throssell Sulphate of Potash Project in Western Australia and the receipt of highly encouraging results from bench-scale test-work on an innovative new technology for the production of potassium-rich feed salts.

"The Lake Throssell Indicated Mineral Resource now stands at 8Mt grading 10.5kg/m³ SOP, much of which lies within higher-yielding aquifers. The Total Drainable Mineral Resource of 13.3Mt grading 4,760mg/L at Lake Throssell continues to reinforce the Project's impressive scale, brine chemistry and consistency of grade throughout the aquifers.

"This resource upgrade clearly shows that Lake Throssell has the scale and grade to underpin a longterm SOP project, supported by high-quality transport infrastructure in the Laverton region.

"We've also received outstanding results from preliminary investigations into identifying an alternative processing pathway. An innovative technique has been identified that addresses key learnings from the emerging Australian Sulphate of Potash industry and shows potential to improve processing efficiency, reliability and cost-effectiveness of this important fertilizer – which is vital for global food security.

"While the process is still very much in the concept development stage, we are highly encouraged by these early results, which have the potential to significantly de-risk the Lake Throssell Project development.

"Notwithstanding these positive achievements, the March Quarter also saw a further softening in prevailing global market conditions, with the Trigg Board making the decision in early April to shift the Company's operational focus onto R&D programs associated with the new processing technology and implementing a series of cost saving measures to preserve shareholder value.

"These measures, which include a reduction in Director fees of 60-75%, a reduction in staff numbers and the termination of our office lease, represent approximately \$600,000 in annualised savings. All other technical and project approval work for the Lake Throssell Project has also been put on hold.

"While we're disappointed to take these steps, we believe they are necessary to preserve the significant value of the Company's assets while progressing the highly promising test-work we have underway on this new processing technology."

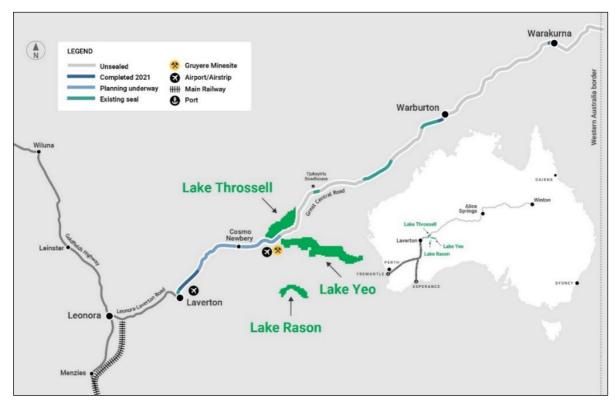


Figure 1: Location of Trigg Mining's Sulphate of Potash Projects in WA showing established and proposed infrastructure and project locations

## Lake Throssell Sulphate of Potash Project

#### 100% Trigg

The Lake Throssell Project (Figure 1) covers an area of 1,085km² and lies approximately 170km east of Laverton, Western Australia. An October 2021 Scoping Study outlined an initial 21-year mine life with forecast production of 245,000tpa SOP in the lowest cost-quartile, which would potentially position the project as a top-10 global SOP producer.

### **Exploration and Resource Definition**

During the March Quarter, Trigg saw the results of field work programs conducted over 2022, delivering a significant expansion of the Indicated Mineral Resource Estimate for the Lake Throssell Project to 8Mt @ 10.5kg/m³ SOP, much of which lies within higher-yielding aquifers. The updated Lake Throssell SOP Mineral Resource Estimate is shown in Table 1 and Figure 2.

The increased size of the Indicated Resource, which is available for conversion to an Ore Reserve Estimate, may have a material impact on the Project when the Company advances technical studies. Importantly, 80% of the new Indicated Resource resides in higher-yielding aquifers with specific yields of 0.12-0.15 and these aquifers will be the target of any future Resource definition field work.

Further information is available in Trigg's ASX Announcement of 13 February 2023.

The updated Mineral Resource was supported by positive brine assay and Borehole Magnetic Resonance (BMR) results reported to the ASX on 1 February 2023.

Table 1: Summary of the Lake Throssell Mineral Resource Estimate

			LUKE TITOS		10000100 201			
Stratigraphy	Drainable Brine Volume (10 <sup>6</sup> m <sup>3</sup> )	Specific Yield (-)	Potassium (K) Grade (mg/L)	Potassium (K) Mass (Mt)	Sulphate (SO <sub>4</sub> ) Mass (Mt)	Equiv. SOP Grade (K <sub>2</sub> SO <sub>4</sub> ) (kg/m <sup>3</sup> )	Drainable Brine Equiv. SOP Mass (Mt)	Total Brine Equiv. SOP Mass (Mt)
		IND	ICATED MIN	ERAL RESOU	RCE			
Surficial Aquifer	390	0.12	4,790	1.9	8.1	10.7	4.2	12.6
Confining Layer	93	0.02	4,565	0.4	2.0	10.2	1.0	14.3
Basal Aquifer	215	0.15	4,635	1.0	5.2	10.3	2.2	4.3
Permian Mixed Aquifer	66	0.04	4,475	0.3	1.4	10.0	0.7	4.0
Indicated Resource	764		4,690	3.6	16.7	10.5	8.0	35.2
		INF	ERRED MINE	RAL RESOUR	RCE			
Surficial Aquifer	335	0.10	4,890	1.6	7.4	10.9	3.7	13.4
Confining Layer	123	0.02	4,675	0.6	3.1	10.4	1.3	19.2
Permian Mixed Aquifer	35	0.04	5,300	0.2	0.8	11.8	0.4	2.8
Inferred Resource	493		4,865	2.4	11.2	10.8	5.3	35.4
TOTAL MINERAL RESOURCE	1,257		4,760	6.0	27.9	10.6	13.3	70.6
			EXPLORATION	ON TARGET				
Surficial Aquifer	60	0.09	3,740	0.2	-	8.3	0.5	-
Confining Layer	80	0.02	4,355	0.3	-	9.7	0.8	ı
Basal Aquifer	110	0.1	3,960	0.4	-	8.8	1.0	-
<b>Total Lower Estimate</b>	250		4,034	0.9	-	9.0	2.3	-
Surficial Aquifer	140	0.12	4,525	0.6	-	10.1	1.4	
Confining Layer	250	0.04	4,740	1.2	-	10.6	2.6	•
Basal Aquifer	520	0.15	4,275	2.2	-	9.5	5.0	-
Total Upper Estimate	910		4,441	4.0	-	9.9	9.0	-

Note: Errors may be present due to rounding. SOP is calculated by multiplying potassium by 2.23

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration in these areas to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

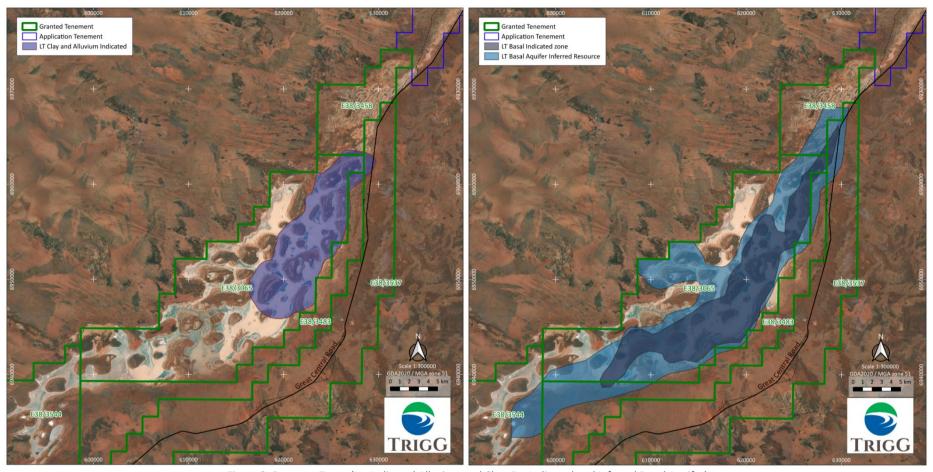


Figure 2: Resource Zones (L – Indicated Alluvium and Clay, R – Indicated and Inferred Basal Aquifer)

#### **Evaluation Studies**

In recognition of the continued difficulties being experienced by first-movers in the Australian SOP industry in providing sufficient and suitable mixed potassium salts (KTMS) as feed to the SOP processing plants, Trigg has been investigating alternative process routes to improve the reliability of producing the feed salts for processing.

During the March Quarter, salt samples from the Lake Throssell Project were sent to various technology providers for testing with their proprietary technology processes, with the testwork programs supervised by Independent Consultants Elmet and GR Engineering Services.

Results from one of these partners has shown significant promise in obtaining the required quality of feed salts quickly and efficiently. A bench-scale test at the technology provider's premises resulted in four salt samples and their associated brines. The samples were taken at pre-determined steps along the salting path. The salt samples have been subjected to X-Ray Diffraction ("XRD") to identify the salts produced in an accredited laboratory in Perth WA. The results indicate an increasing concentration of the typical potassium salts required for feed into an SOP processing plant, whilst also showing a reduced concentration of halite (a waste element).

Furthermore, the salts produced appear to be less complex than those produced from the same brine using a conventional evaporation salting path, which may result in further simplification of the processing route for reliable and efficient production of SOP at Lake Throssell.

Further details are provided in Trigg's ASX Announcement of 8 February 2023.

These studies will be the focus of the Company over the coming period, with all other technical and project approval work at Lake Throssell will be put on hold.

## Lake Yeo Sulphate of Potash Project

#### 100% Trigg

The Lake Yeo SOP Project lies from 35km to the south of the Lake Throssell SOP Project and covers an area of 1,915km<sup>2</sup>, with over 200km<sup>2</sup> of playa area.

With a focus on cost management, all proposed work at Lake Yeo has been put on hold.

The two tenement applications covering the most prospective portion of the project area will remain. These tenements lie within a nature reserve and are not anticipated to be granted in the near term.

## **Lake Rason Sulphate of Potash Project**

#### 100% Trigg

The Lake Rason SOP Project is located 170km east of Laverton and is situated adjacent to the Rason Lake Road. The Project comprises three granted tenements covering an area of 500km<sup>2</sup> and contains a Mineral Resource Estimate of 6.4Mt of SOP.

With a focus on cost management, all proposed work at Lake Rason has been put on hold.

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## **Corporate**

#### **Finance**

At 31 March 2023, the Company held \$1.8 million in cash and cash equivalents (FY23 Q2: \$3.1 million) following payments for exploration and evaluation expenditure of \$0.9 million (FY23 Q2: \$1.4 million) during the Quarter.

As foreshadowed in the December 2022 Quarterly Activities Report released on 31 January 2023, the Board has reviewed key work streams and put in place cost-management measures. Considering this refinement in focus, the Non-Executive Directors put in place a reduction in fees of 60-75% each from 01 February 2023. Notice has also been given to several staff members to downsize and the current office lease will be closed at the end of April. These initiatives are estimated to result in cash savings of approximately \$600,000 on an annualised basis.

The Board will continue to observe external market conditions and may consider further cost-saving measures, if required.

## Payments to related parties of the entity

During the Quarter, the Company paid salaries, fees and superannuation of \$0.19 million to its Directors.

This announcement was authorised to be given to ASX by the Board of Directors of Trigg Minerals Limited.

**Keren Paterson** 

Managing Director & CEO Trigg Minerals Limited

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## **Forward Looking Statements**

This report contains forward-looking statements that involve several risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

## **Competent Persons Statement**

For information referring to the exploration results in this document, refer to ASX announcements dated 5 October 2021 and 13 February 2023. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, Exploration Target or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements; and that the information in the announcement relating to exploration results is based upon, and fairly represents the information and supporting documentation prepared by the named Competent Persons.

### **Schedule of Tenements**

#### as at 31 March 2023

Tenement Number	Location	Registered Owner/Applicant	Status	Interest
E38/3065	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3458	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3483	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3537	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3544	Lake Throssell	K2O Minerals Pty Ltd	Granted	100%
E38/3745	Lake Throssell	K2O Minerals Pty Ltd	Application	100%
E38/3746	Lake Throssell	K2O Minerals Pty Ltd	Application	100%
L38/379	Lake Throssell	K2O Minerals Pty Ltd	Application	100%
E38/3610	Lake Yeo	K2O Minerals Pty Ltd	Granted	100%
E69/3851	Lake Yeo	K2O Minerals Pty Ltd	Granted	100%
E38/3607	Lake Yeo	K2O Minerals Pty Ltd	Application	100%
E38/3608	Lake Yeo	K2O Minerals Pty Ltd	Application	100%
E38/3724	Lake Yeo	K2O Minerals Pty Ltd	Granted	100%
E38/3089	Lake Rason	K2O Minerals Pty Ltd	Granted	100%
E38/3437	Lake Rason	K2O Minerals Pty Ltd	Granted	100%
E38/3464	Lake Rason	K2O Minerals Pty Ltd	Granted	100%

### **Interests in Mining Tenements Acquired or Increased**

for the Quarter ended 31 March 2023

Tenement Number	Location	Nature of Interest	Interest at beginning of quarter	Interest at end of quarter	Note
Nil					

## Interests in Mining Tenements Lapsed, Relinquished or Reduced

for the Quarter ended 31 March 2023

Tenement Number	Location	Nature of Interest	Interest at beginning of Quarter	Interest at end of Quarter	Note
Nil					





## Appendix 5B

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

Name of entity

Trigg Minerals Limited (ASX:TMG)				
ABN Quarter ended ("current quarter")				
26 168 269 752	31 March 2023			

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(855)	(3,181)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(200)	(669)
	(e) administration and corporate costs	(319)	(945)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	17	50
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	482
1.8	Other – GST	78	(6)
1.9	Net cash from / (used in) operating activities	(1,279)	(4,269)

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

ASX Listing Rules Appendix 5B (17/07/20)

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 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	-	(100)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	1,569
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	(12)	(233)
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	(12)	1,336

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,105	4,847
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,279)	(4,269)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(100)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(12)	1,336

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,814	1,814

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	1,794	3,085
5.2	Call deposits	20	20
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)	1,814	3,105

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	195
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 includ	le a description of and an

Note: if any amounts are shown in 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 quarter 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.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9) (Note cash inflows from Government Grants and tax incentives has been excluded)	(1,279)
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)	(1,279)
8.4	Cash and cash equivalents at quarter end (item 4.6)	1,814
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	1,814
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	1.4

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: Cash flow for the next quarter is expected to be less than the current quarter due to minimal exploration expenditure and cost reductions as per ASX Announcement dated 3 April 2023 "Operations Update – Shift to focus on Innovative Technology".

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 is closely managing cash flow and exploring other opportunities.

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, please refer to Items 8.8.1 and 8.8.2

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.

Date: 27 April 2023

Authorised by: Board of Directors

(Name of body or officer authorising release – see note 4)

#### **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.
- 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.