

QUARTERLY REPORT – ACTIVITIES For Quarter Ended 30 September 2023

HIGHLIGHTS:

- Exploration for the quarter focused on Odessa's Yinnetharra Lockier Range tenements
- **Over 56,000 metres strike-length of pegmatites¹** now mapped by geology crews
- **Over 10,400 metres strike-length of previously undiscovered pegmatites mapped** at the new 'Central Pegmatite Field' and Mt Yaragner
- **30 metre-wide pegmatites mapped**
- **The Central Pegmatite Field** is coincident with a 1.5km x 1km Li-Ta-Be-Cs soil anomaly
- **1,900 soil samples collected** from current exploration program are pending results
- **187 rock samples** completed are also pending results
- **Robinsons Bore** samples have been received by the laboratory with results pending
- Mapping and rock chip sampling of pegmatite targets continues

Odessa Minerals Limited (ASX: ODE) ("**Odessa**" or the "**Company**") is pleased to report on its activities for the quarter ending 30 September 2023 (the "Quarter") and highlight planned activities ahead of the upcoming field season.

Odessa's Executive Director, David Lenigas, commented:

"The quarter saw a lot of on-ground exploration at our Yinnetharra Lockier Range Project. Over 56kms of outcropping pegmatites have now been mapped, and on receipt of all the assays coming through in the coming months from the labs we will be defining LCT targets for drilling. Drilling these targets as soon as possible is Odessa's objective."

Lithium Pegmatite Targets

Pegmatites at the Yinnetharra Lockier Range project have surpassed 56,000 metres of total strike-length mapped, with an additional 10,400 metres strike-length of previously undiscovered pegmatites now mapped and sampled at the Central Pegmatite Field and Mt Yaragner.

A total of 187 rock and 1,900 soil samples have been collected to date and have either been delivered to the labs or are on route to the labs from the field as at the date of this report.

¹ Pegmatites are a coarse grained and fractionated granitic rock. Pegmatites are the host of spodumene (lithium) mineralisation in both the Gascoyne region and elsewhere in the world. However, pegmatites have a wide-ranging mineralogy, and the presence of pegmatites does NOT confirm the presence of spodumene. Only laboratory and/or specialist mineralogy tests can confirm lithium spodumene mineralisation associated with pegmatites.

The Central Pegmatite Field is located 6 km from the margin of the lithium-caesium-tantalum ("LCT") fertile Thirty-Three Supersuite granite and is host to multiple, stacked, 30m-wide outcropping pegmatites. A coincident 1.5 km x 1 km Li-Ta-Be-Cs soil anomaly is present across the Central Pegmatite Field.

The newly completed soil sampling program infilled the Company's current Lithium-in-soil anomalies to 100m x 100m spacing and has provided higher definition data on potential drill targets. Rock chip samples have been collected from the outcropping pegmatites. Combined, this sampling program aims to delineate fertile pegmatites and generate drill ready LCT pegmatite targets.

The on-ground team are continuing to systematically map and sample the **>30,000m strike length of pegmatites at the Southern Pegmatite Field.**

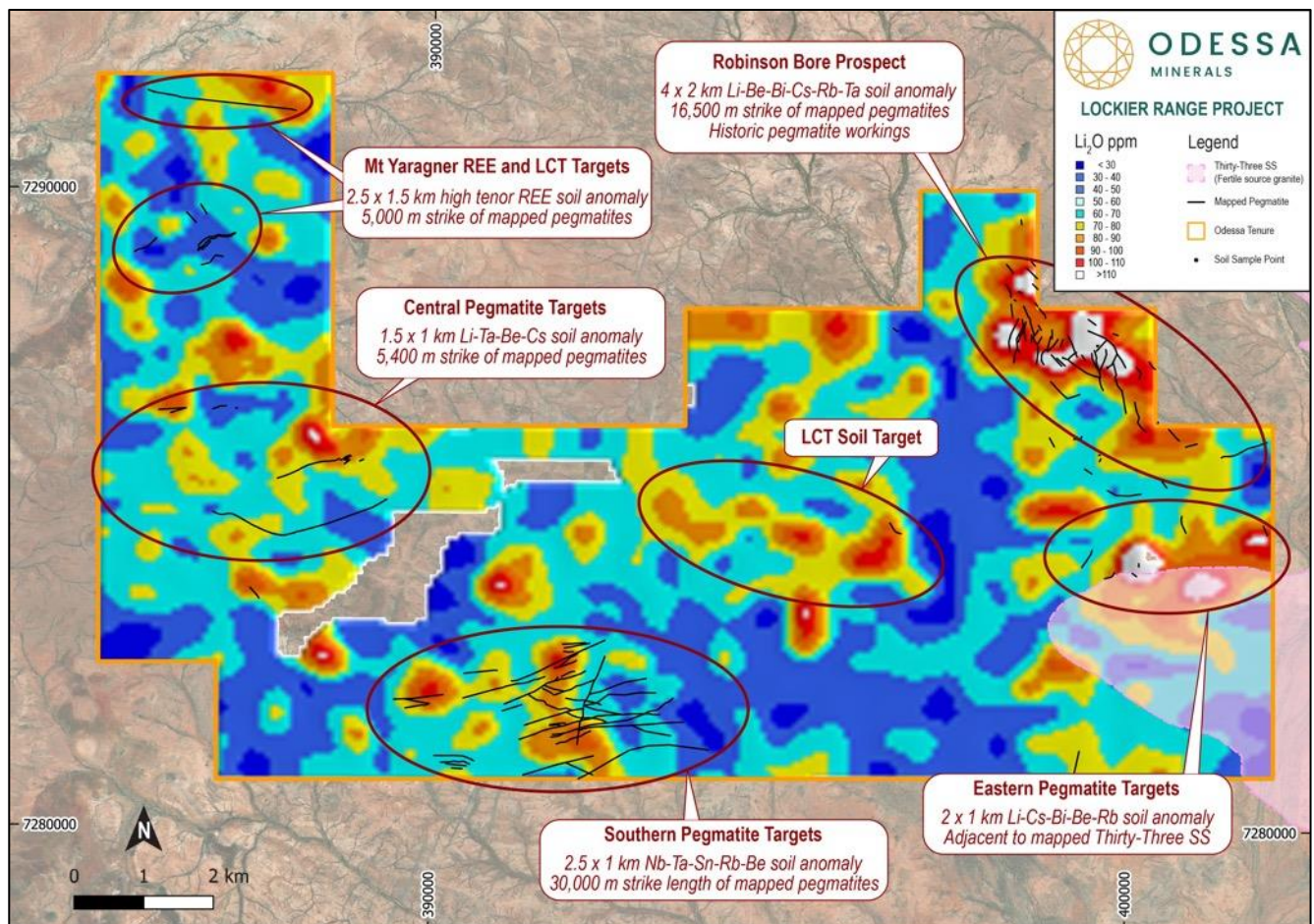


Figure 1: Principal pegmatite target areas within the Lockier Range Project showing the extent of mapped pegmatites underlain by gridded soil results coded by Li₂O ppm (refer company announcements dated 14 July 2023 & 21st August 2023).



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Figure 2: Central Pegmatite Field in the foreground.



Figure 3: 35m-wide pegmatite trending southwest within the Central Pegmatite Field.



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Figure 4: Coarse Grained pegmatite from Central Pegmatite Field at Lockier Range.



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Figure 5: Coarse Grained pegmatite from Central Pegmatite Field at Lockier Range.

Work Program Timeline

The Lockier Range on-ground work was completed in early October and therefore expects to receive assay lab results in batches from mid to late October and onwards.

Subject to assay results, the Company anticipates that the next steps will be the targeting and identifying drilling locations, obtaining approvals to drill, and then drilling the targets as soon as possible.

Lockier Range Project Location

Odessa's **Lockier Range Lithium and Rare Earth Element ("REE")** Project covers a **large area** of 125km² within its substantial **Gascoyne** tenement package of +3,000 km²; and is ideally located:

- Adjoining Minerals 260's "Aston" Lithium project with extensive anomalies
- ~8.5km southwest of Delta Lithium's "Jameson" lithium pegmatite discovery
- ~15km west of Reach Resources' "Morrissey Hill" lithium pegmatite discovery
- ~25km west of Delta Lithium's "Yinnetharra" lithium pegmatite discovery
- ~40km west of Voltaic Strategic Resources' pegmatite discovery
- ~60-70km south of Hastings Technologies' and Dreadnought Resources' rare earth projects



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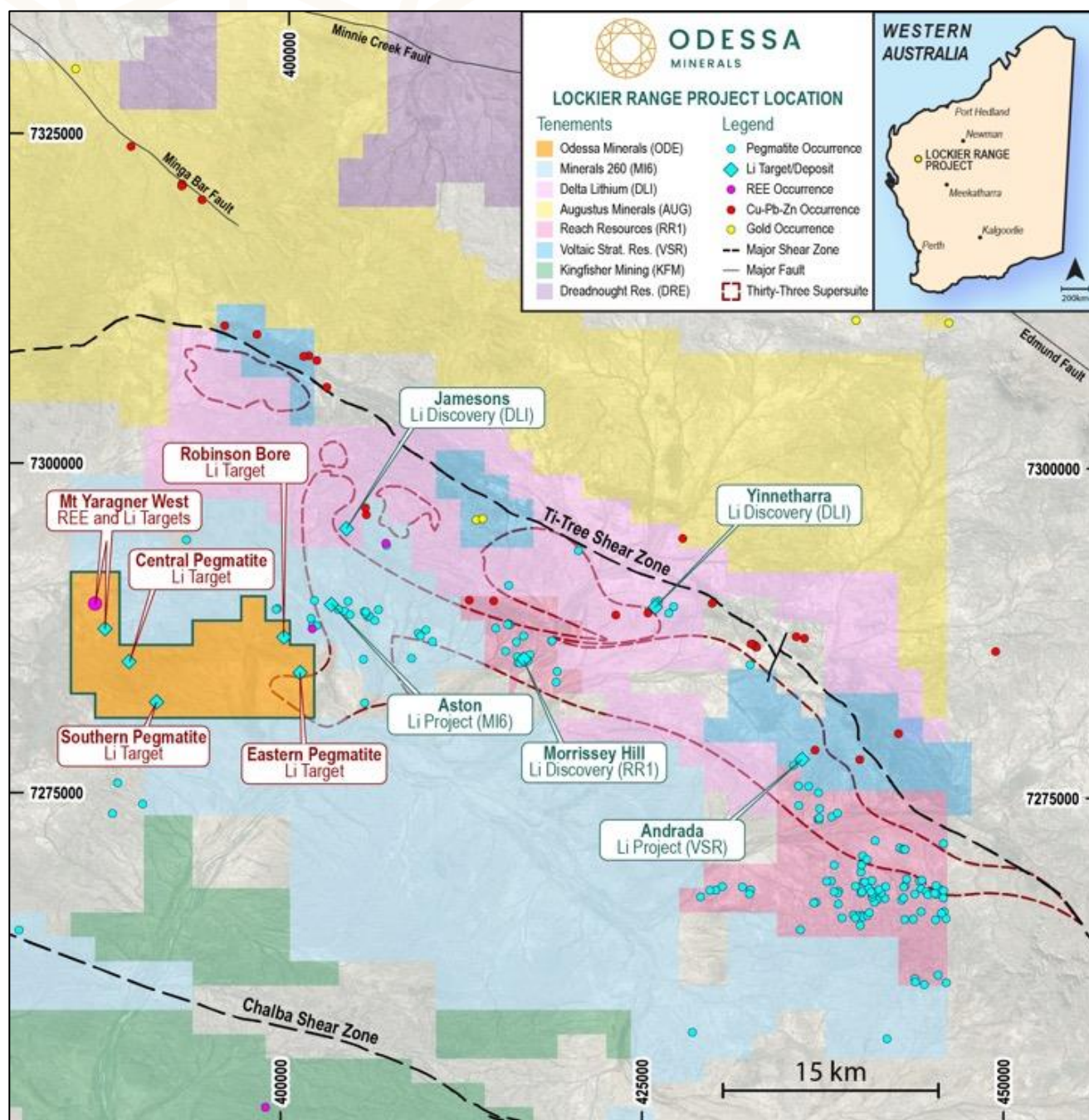


Figure 6: Lockier Range Project, proximal to the emergent Gascoyne lithium pegmatite province.



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Rare Earth Targeting at Lockier Range

The Gascoyne Province of Western Australia is emergent with the discovery of significant critical rare earth element resources and occurrences by Hastings Technology Metals (ASX:HAS), Dreadnought Resources (ASX:DRE) and Kingfisher Mining (ASX:KFM), along with other REE-focused explorers such as Augustus Minerals (ASX:AUG) and Minerals 260 (ASX:MI6).

In July 2023, the Company received, reviewed and reported on the rare earth element (“REE”) analysis results from the tenement-wide systematic soil sampling program over the Lockier Range project.

Well-defined and standout drill targets for REE have been identified at Lockier Range and include:

- Mt Yaragner West REE
 - ~2.5km x 1.5km target zone with very high cerium (Ce) + lanthanum (La) in systematic soil analysis
 - >2,400ppm Ce+La ppm peak soil value
 - Coincident thorium radiometric anomalies
 - Proximity to historic HMC stream sediment results up to 14% total REE (3.36% Nd+Pr)
 - Several other anomalies warranting follow up work

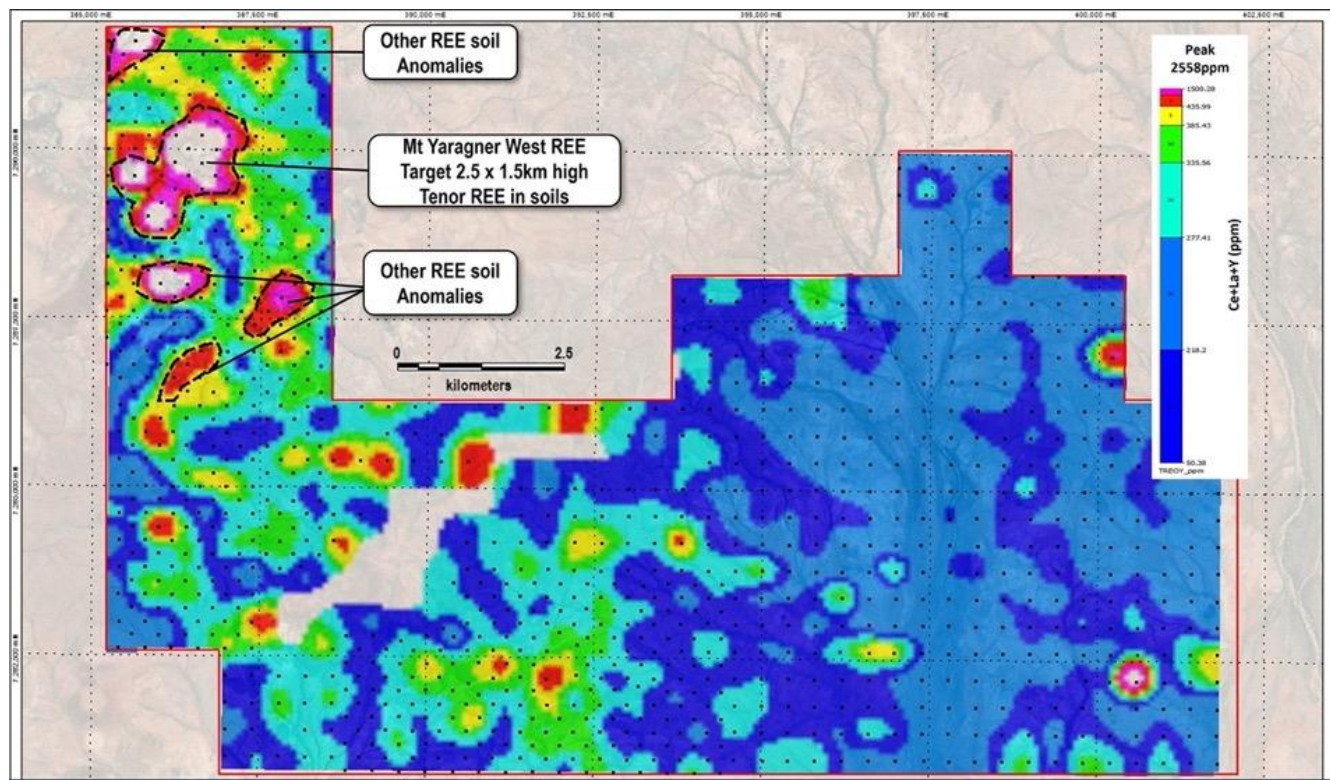


Figure 7 - Soil sampling grid by TREE (Ce+La+Y). Black dots = sample points. MGA94 Zone 50

The Lockier Range Project consists of Durlacher Supersuite granitoids and Moogie Metamorphics intruded by Thirty Three Supersuite granitoids. The Durlacher Supersuite granitoids are a preferential host of the REE-bearing ironstone carbonatites at Hastings Technology’s Yangibana Project and Dreadnought Resources’ Yin Project. Whereas the Thirty Three Supersuite granites are considered the source granite of nearby lithium pegmatite discoveries (e.g. Delta Lithium Ltd (ASX:DLI)).

In 2013, IGO Ltd reported very high REE results in heavy media separation stream sediment samples from the Lockier Range Project. In 2022, Odessa completed airborne magnetics and radiometrics which revealed high thorium (an important indicator of REE carbonatites) in the Mt Yaragner area.

Geological reconnaissance by Odessa has revealed that the Mt Yaragner West area consists predominantly of iron-rich weathered cover (ferricrete) and iron rich overbank gravel deposits. As yet, no ironstone carbonatites have been discovered at surface and, due to the weathering profile, drilling is considered the best way to determine the presence of a discovery.

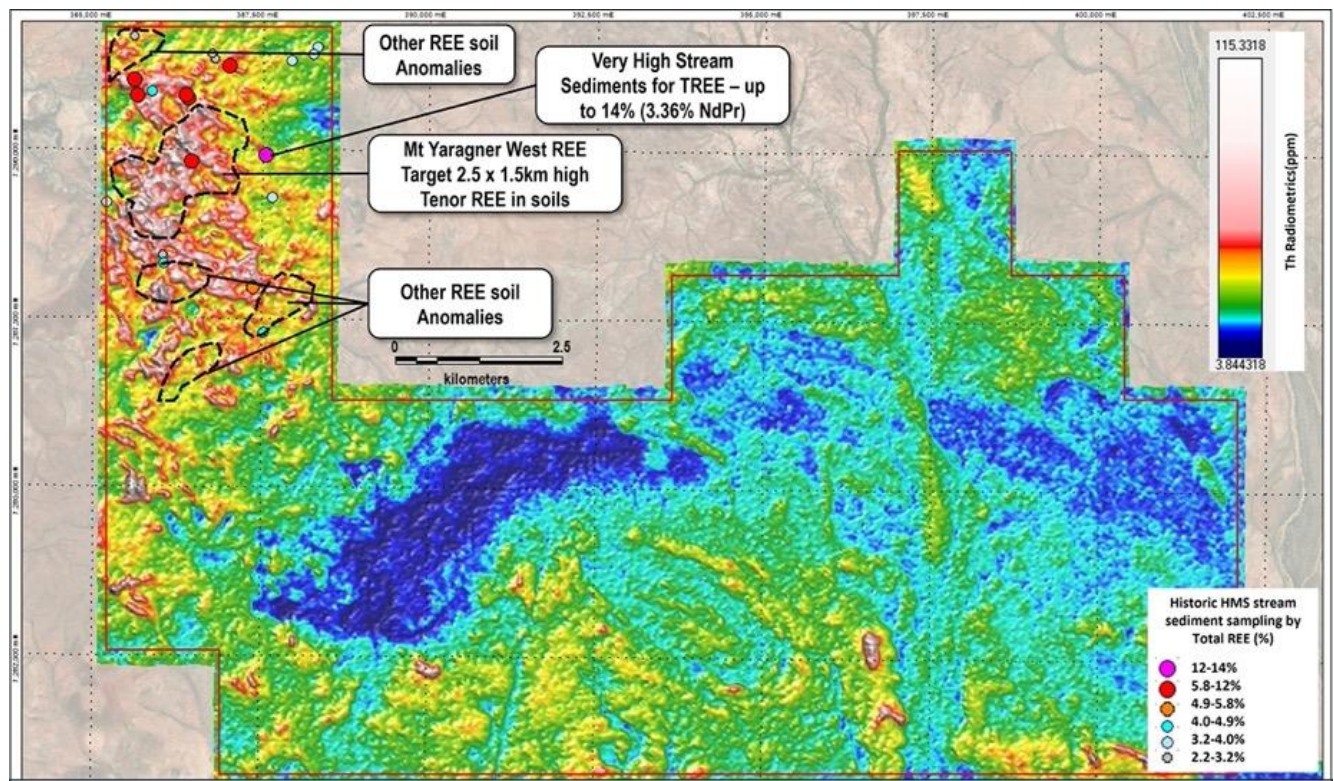


Figure 8 - Thorium radiometric with historic HMC stream sediment sampling results (total REE)

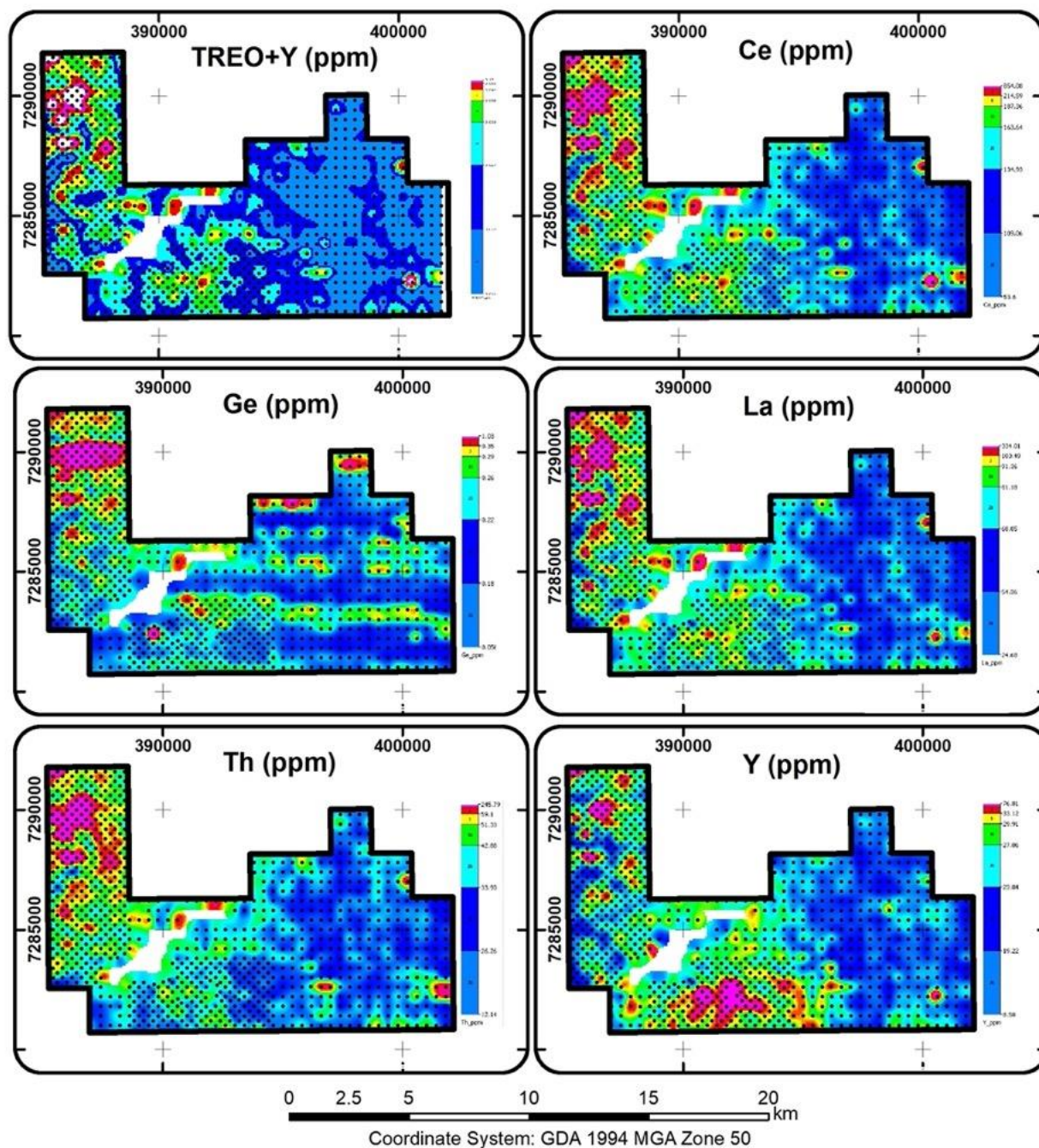


Figure 9 - Gridded soil data for REE pathfinders for Lockier Range Project. Hotter colours - red->purple are the highest order results.

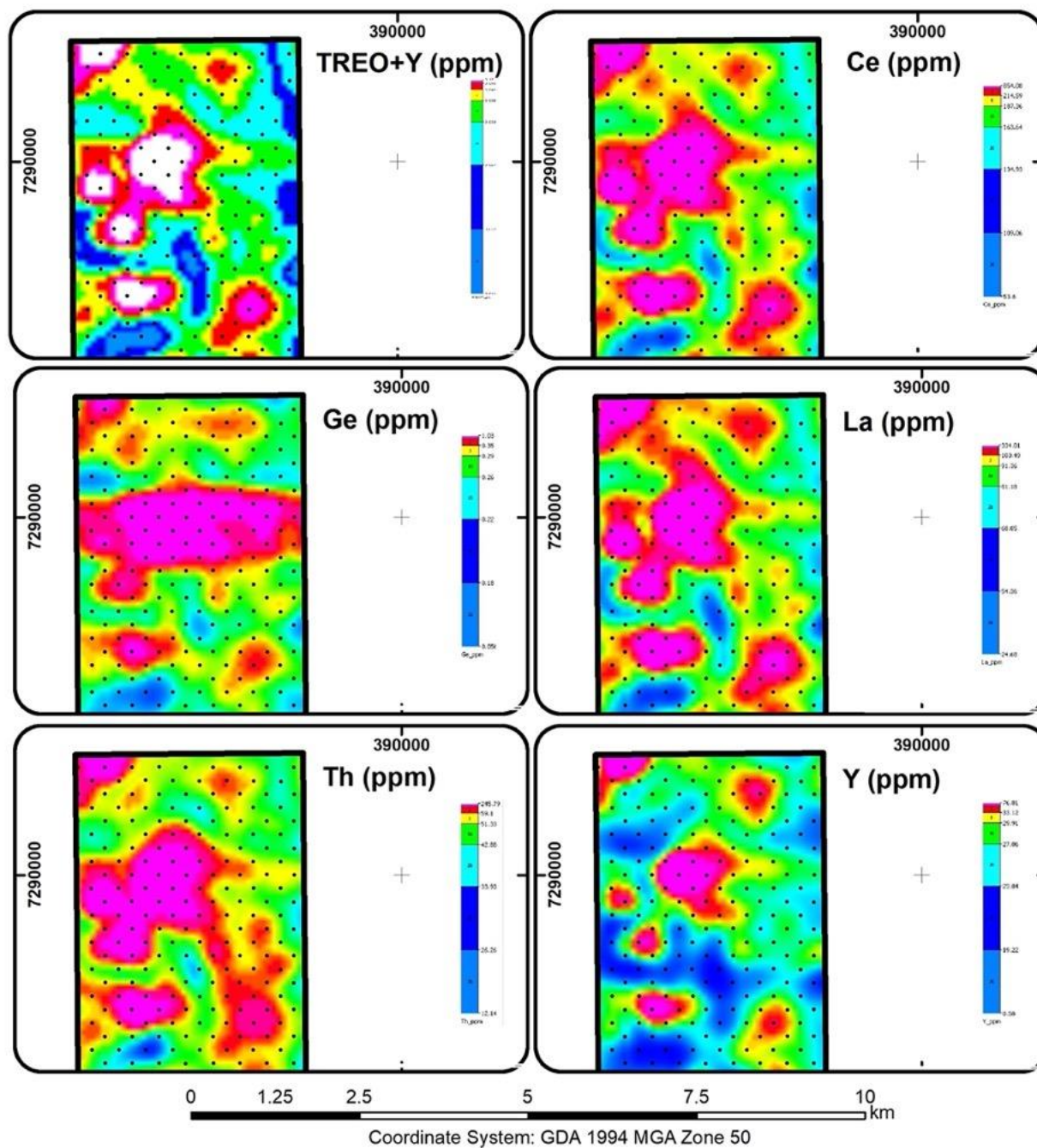


Figure 10 - Gridded soil data for REE pathfinders for Mt Yaragner West Target at Lockier Range. Hotter colours - red->purple->white are the highest order results.

Lyndon Lithium/REE Project

Exploration at Lyndon will commence in earnest this coming quarter.

Gascoyne East Project

The Gascoyne East Project area consists of 2,108 km² of exploration licenses. The project area is at the intersection of major regional fault structures through the Gascoyne and Glenburgh terrains. Geologically, the area is interpreted to be underlain by Gascoyne and Glenburgh meta-granitoids, with an on-lap of Edmund Basin to the north.

The Project is located between the Spartan Resources' (Formerly Gascoyne Resources) Glenburgh and Mt Egerton gold deposits and is along strike of the major Ti-Tree and Errabiddy Shear Zones. The Project is considered prospective for LCT-pegmatites, REEs, gold, copper and graphite. Due to >90% of the Gascoyne East tenure being concealed under transported cover, minimal exploration work has been conducted across the Project area to date.

The Company received approval from the Department of Mines for a 113-hole Aircore drilling program at Gascoyne East Project. Odessa is currently awaiting heritage approvals for this drill program.

The drilling program, coupled with a 100m resolution aeromagnetic survey aims to map the bedrock below transported cover.

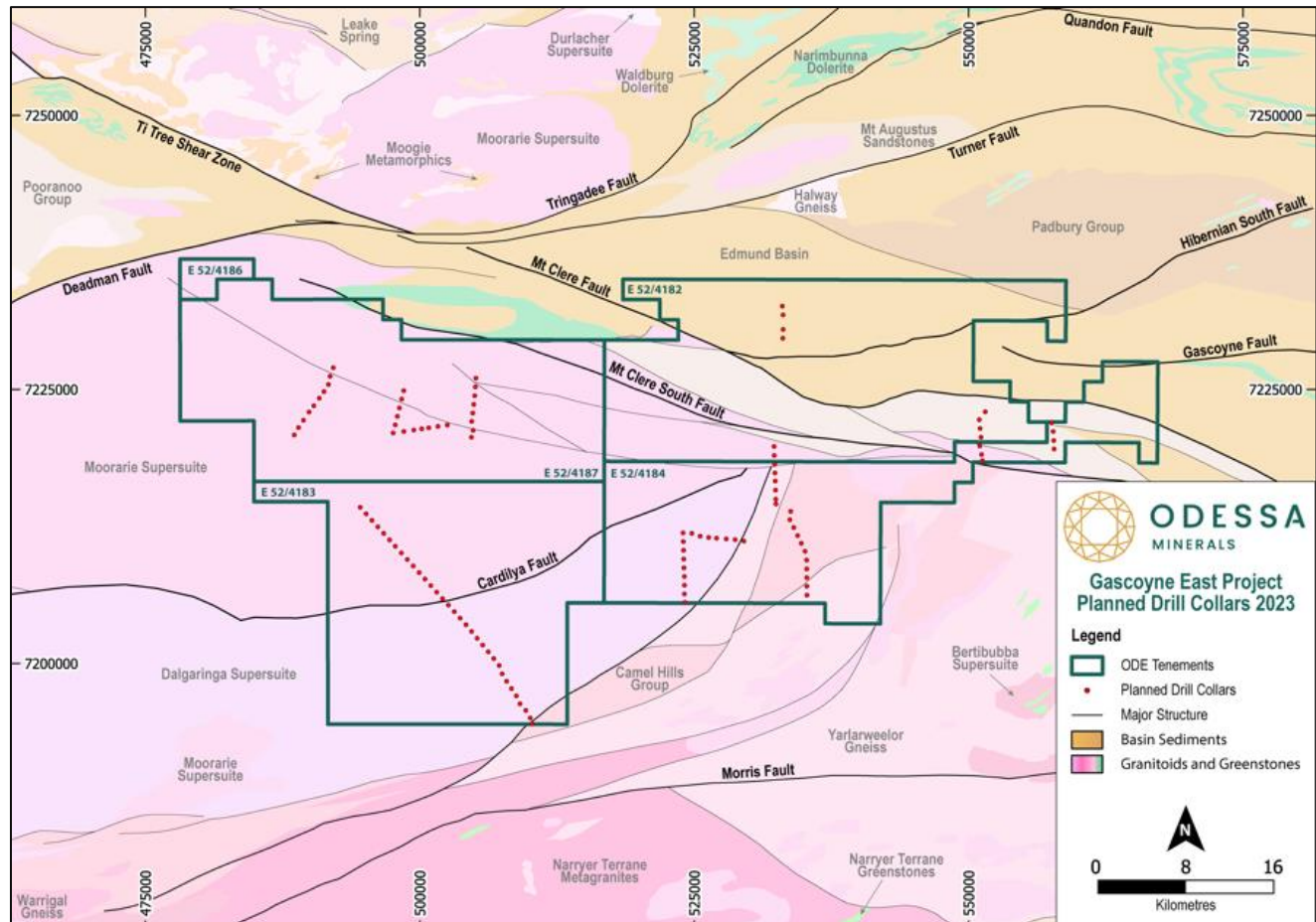


Figure 11 – Gascoyne East Project planned drilling underlain with 1:500k Bedrock geology and major structures.

	Prospectus Use of Funds \$A '000	Funds Used Total to Date \$A '000	Funds Used Sep 2023 Qtr \$A '000
Exploration expenditure – EL80/5027 (Aries)	2,452	782	12
Exploration expenditure – EL04/2364 (Calwynyardah)	899	108	-
Acquisition assessment	813	1,285	310
General administration fees and working capital	1,276	1,550	152
Estimated expenses of the Public Offer	560	706	-

Related Party Payments

During quarter, the Company made payments of \$95,000 to related parties and their associates. These payments relate to the existing remuneration agreements for the Executive and Non-Executive Directors, as well geological consulting, company secretarial and accounting services provided by director related entities.

LIST OF TENEMENTS

Project	Tenement	Status	Area (Km²)	Comments
Lockier Range				
Noonie	E09/2649	Live	40	
Lyndon				
Ebra Bore Lyndon	E08/3434	Live	183	Granted 7/09/2023
	E09/2605	Live	207	
	E08/3364	Live	210	
Lyndon	E09/2435	Live	57	Applied on 2/08/2023
	E08/3217	Live	141	
	E09/2787	Application	8	
	E09/2938	Application	72	
	E09/2794	Application	6	
Ellendale				
Ellendale Air	E04/2832	Application	15	
Ellendale East	E04/2830	Application	210	
Ellendale North	E04/2834	Application	138	
Ellendale West	E04/2833	Application	45	
Gascoyne East				
Gascoyne	E52/4186	Live	18	Surrendered 18/07/2023
	E52/4187	Live	175	
	E52/4198	Application	15	
	E52/4182	Live	573	
	E52/4183	Live	516	
	E52/4184	Live	426	



Aries				
Aries East	E80/5818	Application	87	
Aries Main	E80/5027	Live	90	
Aries Northwest	E80/5815	Application	339	
	E80/5816	Application	261	
	E80/5819	Application	120	
Aries West	E80/5817	Application	177	
Total			4129	

This announcement has been approved for release by the Board of Odessa Minerals.

ENQUIRIES

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Appendix 5B

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

Name of entity

Odessa Minerals Limited

ABN

99 000 031 292

Quarter ended ("current quarter")

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	(4)	(4)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(152)	(152)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	14	14
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)	-	-
1.9	Net cash from / (used in) operating activities	(142)	(142)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(318)	(318)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated 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	(318)	(318)

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	(6)	(6)
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	(6)	(6)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,524	4,524
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(142)	(142)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(318)	(318)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(6)	(6)

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	Cash and cash equivalents at end of period	4,058	4,058

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	4,058	4,524
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)	4,058	4,524

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter
\$A'000**

95

-

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

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
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)	(142)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(318)
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(460)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	4,058
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	4,058
8.7 Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	8.8

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

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: N/A

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: N/A

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: N/A

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: 11 October 2023.....

Authorised by:By the Board of the Company.....
(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.