

QUARTERLY REPORT – ACTIVITIES

For Quarter Ended 31 March 2023

HIGHLIGHTS:

- **Lyndon REE/Lithium Project - Gascoyne**
 - Third and final tenement of the three Lyndon Project tenements has been granted
 - The Lyndon Project tenements total 606km² of highly prospective ground for Rare Earth Element (“REE”)/Lithium exploration, immediately to the west of Dreadnought Resources’ (ASX:DRE) Yin Project
 - Airborne geophysical data has defined Seven (7) thorium anomalies prospective for REE mineralisation
 - Lyndon Project now comprises 811km² in one continuous land package to the east of Dreadnought’s tenements
- **Lockier Range REE/Lithium Project Gascoyne**
 - Lockier Range tenement E09/2649 granted covering 125km²
 - The Mt Yaragner REE Project with the Lockier Range tenement has:
 - Very high tenor REE in stream sediments and soils
 - Large scale Th anomalies comparable with the nearby Yangibana (Hastings Technology (“HAS”)) and Mick Well (Kingfisher Mining (“KFM”)) Rare Earth Projects
 - Historical REE grades up to:
 - 14% total rare earth elements (“TREE”) in stream sediment sample
 - 3.36% Nd+Pr in stream sediment samples
 - 3.8% TREE in soil samples
 - Thorium radiometrics signatures from recently acquired radiometrics show clear comparisons to nearby Yangibana REE development project (Hastings Technology Metals Ltd) and Yin REE Project (Dreadnought Resources Ltd)
 - Extensive thorium anomalies 9km by 3km area at Mt Yaragner
 - Anomalies coincident with high tenor (>1% total rare earth oxide assays (“TREO”) from historic soil and stream sediment sampling.
- **Gascoyne East REE/Lithium Project**
 - *2,108km² of tenements granted (95% of the 2,148km² of tenements applied for).*
 - Taking Odessa’s tenement holding to >3,000km² of highly prospective Gascoyne Terrane in Western Australia, making Odessa one of the key exploration land holders in the Gascoyne.
 - Exploration targeting models indicating prospectivity for:
 - Clay / Fluvial REE Deposits
 - Hardrock REE Deposits
 - Sedimentary hosted copper-lead-zinc deposits
- **Strong cash position with \$2.70M at the end of quarter**

Odessa Minerals Limited (ASX: ODE) (“Odessa” or the “Company”) is pleased to report on its activities for the quarter ending 31 March 2023 (the “Quarter”) and highlight planned activities ahead of the upcoming field season.

Odessa's Executive Director, David Lenigas, commented:

"Our prime objective this quarter has been getting the massive land package of over 3,000km² approved through the DMIRS. We have had excellent success with this, culminating in all of Lyndon, Lockier Range and 95% of the Gascoyne East Projects now being either fully granted and transferred, or pending Ministerial approval, to complete final tenement transfers. Odessa is now one of the largest tenement holders in the Gascoyne Region and we are buoyed by the incredible success of other companies in the direct neighbourhood with their recent and very significant REE and Lithium discoveries."

Whilst we were waiting for our vast tenement package to be granted, we have acquired very detailed airborne radiometric and magnetic surveys over most of Lyndon and all of Lockier Range this quarter, and this work has identified a significant number of high-priority targets. The Board's plans are to now get multiple field crews on the ground and comprehensively sample our targets. We are very optimistic that a significant number of our targets, especially at Lockier Range, can deliver some exceptional exploration targets for drilling this year."

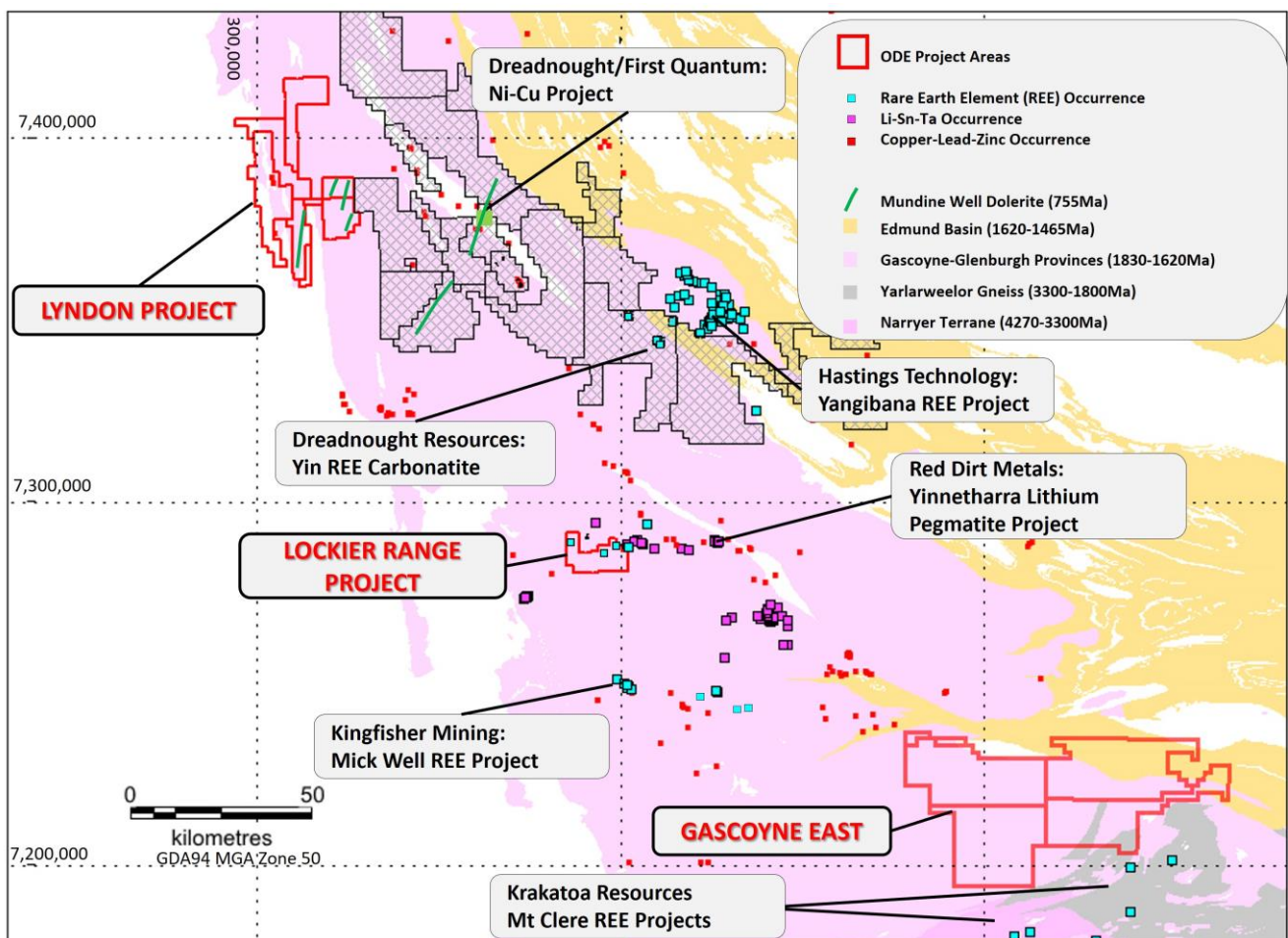


Figure 1: Odessa Minerals' projects in the Gascoyne Region of Western Australia totalling >3,000km²

PROJECTS

Lockier Range REE/Li Project

Earlier in the Quarter, the Company announced it had acquired new detailed (50m line spacing) magnetics and radiometrics data for the Lockier Range Project. The Lockier Range project is subject to a binding agreement for the Company to buy OD4 Noonie Pty Ltd, which holds the 125 km² ELA09/2649 (the "Lockier Project") from a consortium of private vendors (refer release dated 25 October 2022). Importantly, the DMIRS has now granted the tenement to Milford Resources Pty Ltd (refer to release dated 27 April 2023) and as per the Lockier Range Project sale agreement, Odessa subsidiary OD4 Noonie Pty Ltd will now be able to acquire E09/2649 from Milford, subject to Ministerial approval.

The Lockier Project sits 65km south-west of Hastings Technologies Metals Ltd's (ASX:HAS) 'Yangibana' REE project, 55km south-west of Dreadnought Resources' (ASX:DRE) 'Yin' REE project and 35km north of Kingfisher Mining Ltd's (ASX:KFM) 'Mick Well' REE project.

Data acquisition

The radiometric data was part of a combined aeromagnetic and radiometric survey flown by MagSpec Airborne Surveys Ltd and has been acquired by the Company. The data consists of a detailed 50 metre line-spacing, fixed-wing survey, and was acquired at a nominal flight height of 30 metres on north-south flight lines.

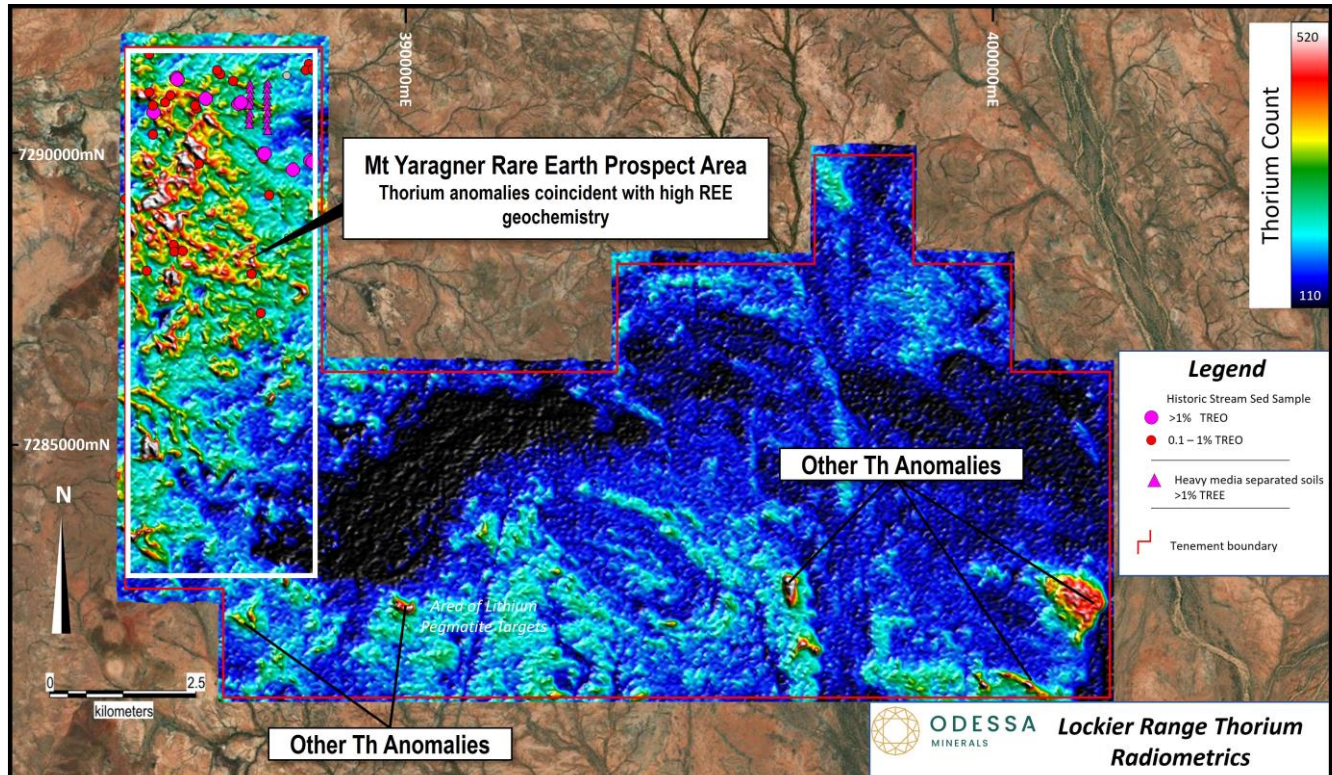


Figure 2: Odessa's Lockier Range Project showing newly acquired thorium radiometric data. The high thorium count relates to the Mt Yaragner area in the west and is coincident with historic high-grade geochemical data. (grid MGA95, Zone 51).

Mt Yaragner REE Project:

The Mt Yaragner Project is located within the western part of the Lockier Range Project. The area has been subject to previous exploration and compilation by other explorers including Venus Metals Ltd and Independence Group (now IGO Ltd). Both companies reported very high-tenor soil and stream sediment sampling results for rare earth elements, including up to 14% total rare earth element ("TREE") in stream sediment samples, with 3.36% Nd+Pr; and 3.87% TREE retrieved from soil samples.

All previous historic samples cannot be confirmed until Odessa attends to verification sampling programs itself. IGO surrendered the tenement in 2013.

It is established that mineralised REE-bearing carbonatites in the Gascoyne Province of Western Australia weather into dark brown to black ironstones and exhibit strong thorium radiometric anomalies. As such, the Company has reviewed several individual thorium anomalies and the aerial photography for evidence of REE ironstone carbonatites. Initially, four target areas are discussed herein, though it is noted that there are several other thorium-iron anomalies that warrant further work.

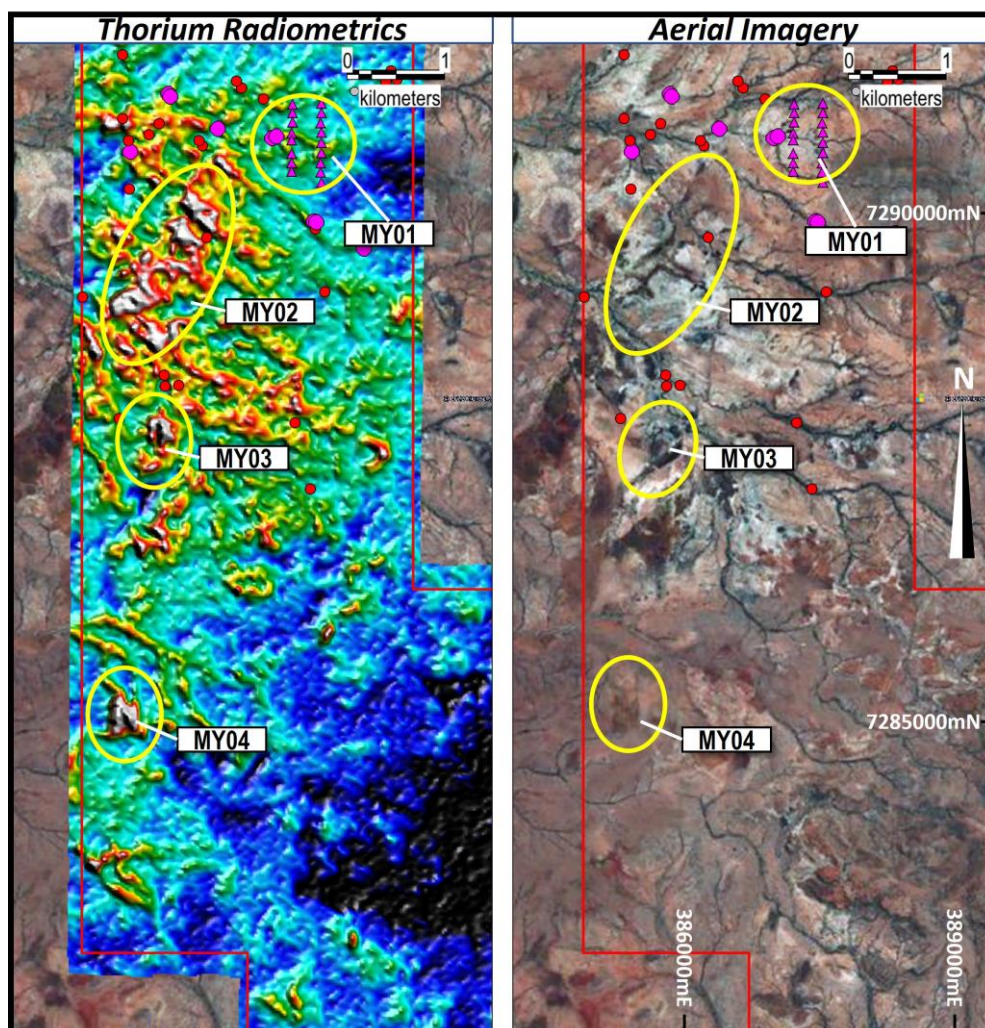


Figure 3: Mt Yaragner area with thorium radiometrics (left) and aerial imagery (right) (grid MGA94 Zone 50).

Mt Yaragner Target 1 (MY01)

The MY01 target area is coincident with previous very high-tenor soil sampling of up to 3.8% TREE and immediately upstream from stream sediment samples grading up to 14% TREE (refer to release dated 25 October 2022). The area consists of lag cover (as reported by IGO),¹ and yet there is an evident thorium anomaly approximately 600m x 400m, with evidence of ironstone development (from aerial imagery), within the proximity of the high-grade samples.

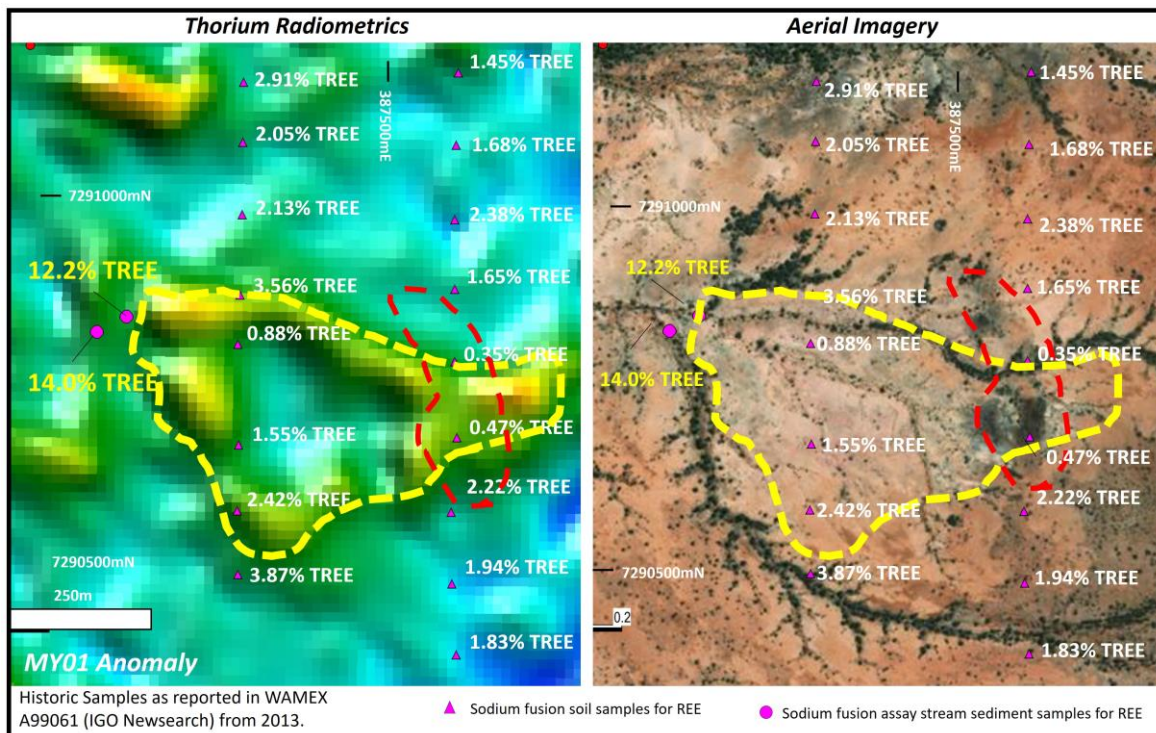


Figure 4: MY01 with thorium radiometrics (left) and aerial imagery (right) showing historic soil and stream sediment samples (grid MGA94 Zone 50). Yellow outline is the radiometric anomaly, and red outline is the iron oxide anomaly interpreted from aerial.

¹ IGO Newsearch WAMEX Report A99601 (2013)

Mt Yaragner Target 2 (MY02)

The MY02 target area is a large thorium anomaly with evidence of iron oxide (interpreted to potentially be ironstone carbonatite covering approximately a 1km by 1km area. This target area is immediately upstream from historic stream sediment sampling with up to 7.4 % TREE.

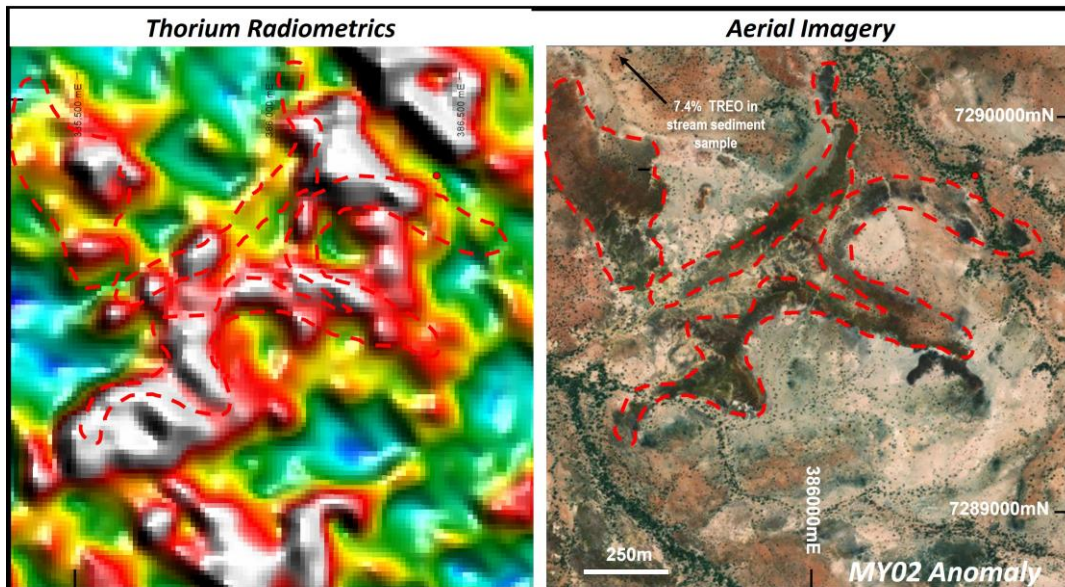


Figure 5: MY02 with thorium radiometrics (left) and aerial imagery (right) (grid MGA94 Zone 50). Red outline is the iron oxide anomaly interpreted from aerial imagery.

Mt Yaragner Target 3 (MY03)

The MY03 target area is a distinct tear-drop shaped large thorium anomaly with a remarkable coincidence of iron oxide (interpreted to potentially be ironstone carbonatite) covering an approximately 0.5km by 0.4km area.

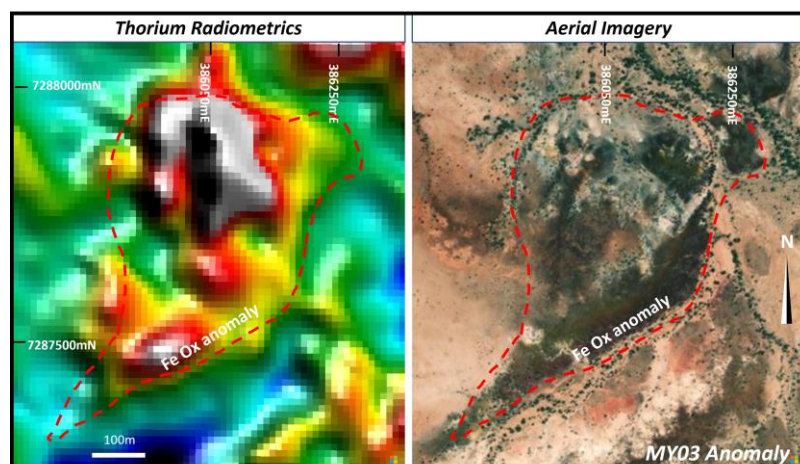


Figure 6: MY03 with thorium radiometrics (left) and aerial imagery (right) (grid MGA94 Zone 50). Red outline is the iron oxide anomaly interpreted from aerial imagery.

Mt Yaragner Target 4 (MY04)

The MY04 target area is one of the strongest thorium anomalies in the dataset and is also coincident with a dark brown anomaly in the aerial imagery (interpreted to potentially be ironstone carbonatite) covering an approximately 0.5km by 0.3km area.

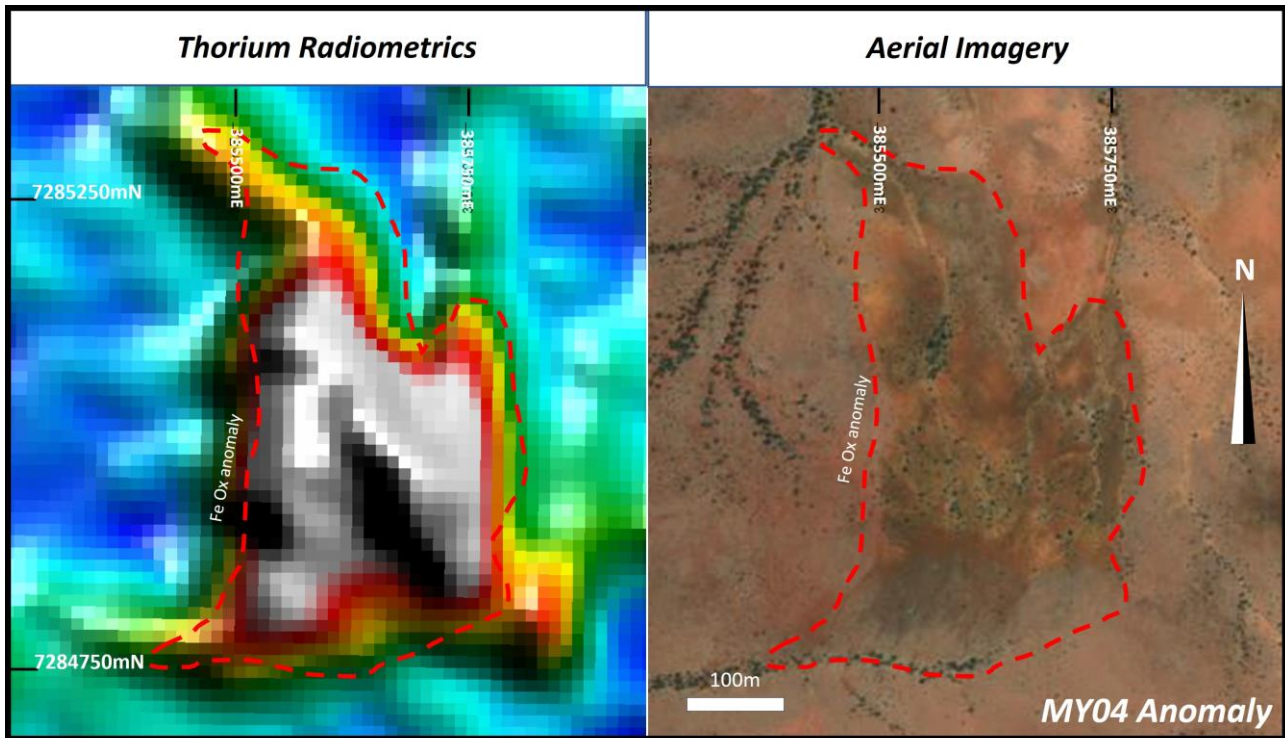


Figure 7: MY04 with thorium radiometrics (left) and aerial imagery (right) (grid MGA94 Zone 50). Red outline is the iron oxide anomaly interpreted from aerial imagery.

Gascoyne East REE/Lithium Project

During the Quarter, the Company announced that the Western Australian Department of Mines, Industry Regulations and Safety (“DMIRS”) has granted Odessa the following exploration Licences - E52/4182, E52/4183, E52/4184 and E52/4187, covering an area of 2,108.06km², or about 98% of the 2,148 km² originally applied for. The remaining 5 blocks are expected to go to ballot. Refer to Figure 1 for location.

Exploration targeting models indicate prospectivity for:

- Clay / Fluvial Rare Earth Element (REE) Deposits
- Hardrock REE Deposits
- Sedimentary hosted copper-lead-zinc deposits

Next steps in the Gascoyne and work underway:

Lyndon Project

Aboriginal Heritage Surveys have been conducted in the southern half of the Lyndon Project and exploration efforts will now commence once site access allows due to extensive rains in the Gascoyne this summer. The processing of newly acquired high-resolution airborne magnetics and radiometrics has now been completed and targets are currently being generated for REE and Lithium ground-truthing.

Lockier Range Project

The Lockier Range Project is pending the completion of acquisition, though the Company believes there is no material obstructions to this completing in the coming months. The work presented herein is preliminary and ongoing processing and modelling of geophysical data is continuing.

Furthermore, the project has several other prospective areas including the potential for lithium-bearing pegmatites. The recently acquired geophysical data, particularly the magnetics, is currently being assessed for applicability for targeting.

The Company is planning field reconnaissance work including further geophysics and drilling of high priority targets, subject to approvals, in the second and third quarters of this year.

Gascoyne East Project

First exploration will involve initial reconnaissance field work, followed by ground-based geophysics and/or shallow drilling to test through extensive colluvium cover to the basement of Gascoyne Group rocks.

Kimberley Diamond Exploration:

Due to an extremely wet “Wet Season”, it has not been possible to conduct any on-ground exploration activities across our Kimberley tenement portfolio.



CORPORATE

Use of Funds

Pursuant to ASX listing rule 4.7C.2, the Company provides the following comparison of budgeted expenditures per the Company's prospectus dated 18 November 2021 against actuals to date.

	Prospectus Use of Funds \$A '000	Funds Used Total to Date \$A '000	Funds Used Mar 2023 Qtr \$A '000
Exploration expenditure – EL80/5027 (Aries)	2,452	769	7
Exploration expenditure – EL04/2364 (Calwynyardah)	899	108	-
Acquisition assessment	813	792	96
General administration fees and working capital	1,276	1,206	239
Estimated expenses of the Public Offer	560	706	-

Related Party Payments

During the Quarter, the Company made payments of \$101,000 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 (Km ²)	Comments
Lockier Range				
Noonie	E09/2732	Application	120	
Lyndon				
Ebra Bore Lyndon	E08/3434	Application	183	
	E09/2605	Application	207	
	E08/3364	Live	210	
Lyndon	E09/2435	Live	57	
	E08/3217	Live	141	
	E09/2787	Application	8	Applied 27/02/2023
	E09/2794	Application	6	Applied 27/02/2023
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	Application	18	
	E52/4187	Live	175	Granted 3/01/2023
	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	
Calwynyardah				
Calwynyardah	E04/2364	Live	36	Withdrawn 20/02/2023
Argyle South				
Argyle South	E80/5725	Application	210	Withdrawn 24/01/2023
	E80/5738	Application	18	Withdrawn 24/01/2023
Total			4401	



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

ENQUIRIES

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Please visit our website for more information and to sign up to receive corporate news alerts:
www.odessaminerals.com.au



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")

31 March 2023

Consolidated 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	(41)	(77)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(83)	(788)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	7	19
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	(117)	(846)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	(10)
	(d) exploration & evaluation	(220)	(1,442)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated 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	-	10
	(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	(220)	(1,442)

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	3,046	4,997
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(117)	(846)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(220)	(1,442)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

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 (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	2,709	2,709

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	2,709	3,046
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)	2,709	3,046

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**

101

-

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)	(117)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(220)
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(337)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	2,709
8.5	Unused finance facilities available at quarter end (Item 7.5)	-
8.6	Total available funding (Item 8.4 + Item 8.5)	2,709
8.7	Estimated quarters of funding available (Item 8.6 divided by Item 8.3)	8.0

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: 28 April 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.