

SEPTEMBER 2024 QUARTERLY REPORT

IperionX Limited (Nasdaq | ASX: IPX) is pleased to present its quarterly report for the period ending September 30, 2024. Key highlights during and subsequent to the end of the quarter include:

Titanium Production Facility, Virginia

First Commercial-Scale Titanium Production and Progressive Commissioning Underway

- The advanced Hydrogen Assisted Metallothermic Reduction (HAMR™) furnace was successfully commissioned the quarter, marking the first commercial-scale titanium production at the Virginia facility.
- Using 100% scrap titanium (Ti-6Al-4V, Grade 5), the production run achieved a significant reduction in oxygen levels - from 3.42% to under 0.07% - far surpassing ASTM standards of 0.2% oxygen.
- Supporting titanium production equipment installation and progressive commissioning remains on-budget and on-schedule for titanium metal powder production in late 2024.
- Key supporting milestones during the quarter included obtaining the regulatory 'certificate of occupancy,' energizing the furnace, installing and commissioning the bridge crane, and completing construction and commissioning of the spherical titanium powder manufacturing line.

Advanced Manufacturing Center, Virginia

High-Value Titanium Product Development and Manufacturing

- The construction fit-out of the Advanced Manufacturing Center, Virginia, was completed during the quarter, with installation and progressive commissioning of key titanium manufacturing equipment ongoing.
- The Advanced Manufacturing Center will produce semi-finished titanium mill products, titanium near-net-shape forged components, and high-value titanium goods using traditional and advanced additive manufacturing processes.
- IperionX's patented Hydrogen Sintering & Phase Transformation (HSPT) technology is being applied to the sintered titanium products, delivering properties that equal or exceed traditional industry standards.
- The Advanced Manufacturing Center also hosts the R&D hub, which has a leading research team focused on advancing the HAMR technology and commercializing mineral-to-metal upgrading processes, including the innovative Green Rutile process.

IperionX Customer and Product Development

IperionX executes sourcing contract with Ford Motor Company

- In September 2024, IperionX signed a sourcing contract with Ford Motor Company for the supply of manufactured titanium components, starting in 2025. The contract is expected to generate approximately US\$11 million in revenue through the supply of titanium components.

IperionX and Aperam partnership to establish a circular titanium supply chain for consumer electronics

- In partnership with Aperam's ELG Utica Alloys, IperionX will apply its proprietary sustainable titanium supply chain solution to the consumer electronics sector, upcycling up to 12 metric tons of titanium scrap generated from the consumer electronics sector to manufacture a range of high-performance titanium products.
- IperionX will initially upcycle 1 metric ton of consumer electronics titanium scrap to manufacture a full range of high-performance titanium near-net shapes, plate, rod, and wire products.

North Carolina

129 W Trade Street, Suite 1405
Charlotte, NC 28202

Tennessee

279 West Main Street
Camden, TN 38320

Virginia

1092 Confroy Drive
South Boston, VA 24592

Utah

1782 W 2300 S
West Valley City, UT 84119

Titan Critical Minerals Project, Tennessee

Strategic Partnering and Sales Offtake

- IperionX continues to receive strong commercial interest in the Titan Project's critical minerals, including titanium, rare earth elements, and zircon.
- A major Japanese conglomerate completed bulk sample testing at the Titan Project, and metallurgical test work is ongoing at an independent laboratory in Australia, paving the way for potential offtake agreements and development financing.
- A range of other partnering options, including the U.S. Government, remain as potential sources of development finance for the Titan Project

Corporate and Financial Highlights

Strong Financial Position and Index Inclusion

- As of September 30, 2024, IperionX held US\$30.4 million in cash.
- IperionX received US\$1.7 million in Title III DPA funding this quarter, contributing to a total of US\$6.4 million received to date, with US\$6.3 million still available to draw for Phase I of the Virginia Titanium Production Facility.
- On September 23, 2024, IperionX was included in the S&P/ASX 300 Index, which tracks the performance of up to 300 of Australia's largest publicly listed companies.

U.S. Government Engagement - Growing Support for Domestic Titanium Supply Chain

- In September, IperionX hosted U.S. Senator Mark Warner and key local stakeholders at the Titanium Manufacturing Campus, reinforcing strong local and federal relationships.
- IperionX made significant progress on an US\$11.5 million equipment finance facility with the Export-Import Bank of the United States (EXIM Bank).
- The U.S. Government announced plans to provide additional grant funding to bolster the domestic titanium supply chain. IperionX is well-positioned to apply for these funds to scale up production and manufacturing capacity.

For further information and enquiries please contact:

investorrelations@iperionx.com

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VIRGINIA TITANIUM MANUFACTURING CAMPUS

Titanium Production Facility – First titanium deoxygenation production run complete

In August 2024, IperionX's advanced Hydrogen Assisted Metallothermic Reduction (**HAMR™**) furnace was successfully commissioned, marking the first titanium deoxygenation production run at the Titanium Production Facility. The successful titanium deoxygenation production cycle is a significant milestone in the development of HAMR technology that has the potential to revolutionize the titanium industry and demonstrates the commercial-scale capabilities of IperionX's breakthrough titanium deoxygenation technologies.

Produced entirely from 100% scrap titanium (Ti-6Al-4V alloy, Grade 5 titanium), quality assessments confirmed a large reduction in oxygen levels from 3.42% to below 0.07%, far exceeding the ASTM standard requirement of 0.2% for Grade 5 titanium.



Figure 1: IperionX's first HAMR furnace production cycle

Key supporting milestones during the quarter included obtaining the regulatory 'certificate of occupancy,' energizing the furnace, installing and commissioning the bridge crane, and completing construction and commissioning of the spherical titanium powder manufacturing line. Supporting titanium production equipment installation and progressive commissioning remains on-budget and on-schedule for titanium metal powder production in late 2024.

IperionX's patented technologies underpin long-term competitive advantages over the Kroll titanium production process - with lower energy consumption, lower capex, faster cycle times, higher product yields and the ability to utilize 100% scrap titanium or upgraded titanium minerals as feedstocks.

IperionX plans to expand the capacity of its Titanium Manufacturing Campus by adding modular, low-risk and low-cost HAMR furnaces, aiming to be a leading U.S. titanium producer of +10,000 metric tons per annum by 2030.



Figure 2: Ancillary operations equipment installed at the Titanium Production Facility



Figure 3: IperionX operations personnel at the Titanium Production Facility

Advanced Manufacturing Center – High-performance titanium product manufacturing

The construction fit-out of the Advanced Manufacturing Center, Virginia, was completed during the quarter and the installation and progressive commissioning of key titanium manufacturing equipment is on schedule.

High-quality titanium powders produced at the Titanium Production Facility are an important low-cost internal feedstock for the Advanced Manufacturing Center, where they are used to manufacture a wide range of higher value titanium products such as semi-finished traditional mill products, near-net-shape forged titanium components and high-value titanium products.



Figure 4: Powder metallurgy machinery at the AMC and production of consolidated titanium components

IperionX's patented HAMR titanium production technology can produce low-cost and high-quality titanium metal angular powders. Importantly, the proprietary Hydrogen Sintering and Phase Transformation (HSPT) 'forging' technology yields a wrought-like ultrafine grain microstructure to produce titanium products with superior fatigue properties versus traditional titanium powder metallurgy methods.

Traditional titanium powder metallurgical processes typically produce low strength titanium material with large grains and significant porosity. In contrast, HSPT utilizes a hydrogen atmosphere to produce ultra-fine grained titanium microstructure with low porosity, which delivers mechanical properties comparable or better than wrought processes, but which avoids the associated high-cost and high carbon emissions.

Titanium products at the Advanced Manufacturing Center are produced via HSPT and a range of traditional powder metallurgy methods, such as press and sinter, as well as via a number of additive manufacturing modalities.

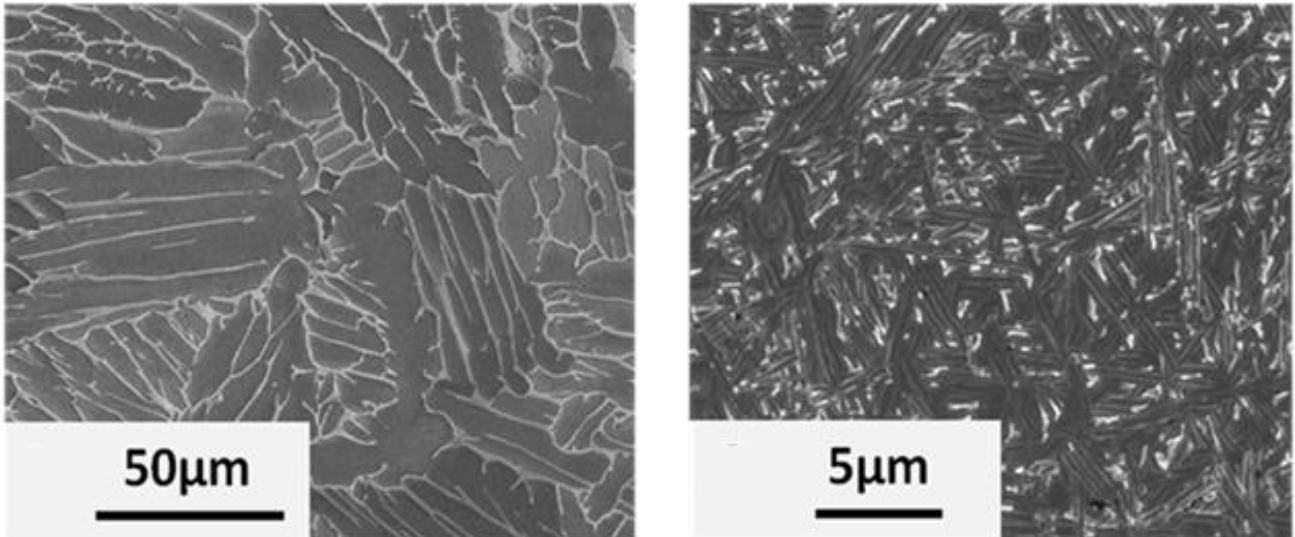


Figure 5: LHS – Coarse microstructure of titanium metal produced via traditional powder metallurgy. RHS – ultra-fine microstructure of titanium metal produced via HSPT



Figure 6: Additive manufacturing machinery at the AMC



Figure 7: R&D laboratory and quality control activities at the Advanced Manufacturing Center

CUSTOMER AND PRODUCT DEVELOPMENT

IperionX has a large pipeline of potential customers, with over 200 potential customer non-disclosure agreements executed relating to sales agreements across a range of sectors including consumer electronics, automotive, green hydrogen, luxury good, aerospace and defense. A number of these discussions have the potential to convert to sales contracts as production ramps up in Virginia, with increased production and availability of titanium products.

IperionX executes sourcing contract with Ford Motor Company

In September 2024, IperionX signed a sourcing contract for the supply of manufactured metal components for Ford Motor Company (Ford), anticipated to be the first of a range of partnerships in the automotive sector. The term of the contract runs for 45 months commencing in 2025, with IperionX contracted to supply titanium metal

powder and manufacture components for Ford, with total revenues from the contract expected to be ~US\$11 million.

Actual revenues and contract timing are subject to Ford's annual volume estimates and final delivery schedule, which may change, as well as potential changes to component designs prior to the commencement of production, which are subject to a final engineering design.

IperionX and Aperam partnership to establish a circular titanium supply chain

IperionX and Aperam Recycling (Aperam), through its American entity ELG Utica Alloys (ELG), signed an agreement for an innovative titanium processing and product manufacturing program. The partnership will demonstrate IperionX's fully circular and sustainable titanium supply chain solution, turning titanium scrap into high-performance titanium products for the consumer electronics sector.

Under the partnership, IperionX will use its patented titanium technologies to upcycle up to 12 metric tons of titanium scrap generated from the consumer electronics sector to manufacture a range of high-performance titanium parts and products. IperionX will initially upcycle 1 metric ton of titanium scrap into high-grade titanium powder and then manufacture a range of titanium near-net shapes for specific parts, as well as plate, rod and wire products.

Aperam is focused on advancing the circular economy and is a global leader in stainless, electrical and specialty steel and recycling. ELG, part of Aperam Recycling, is a leading global specialist in sourcing and processing titanium, stainless steel and super alloys, processing over 1 million tons of metal annually.

Titanium manufacturing generates high volumes of titanium scrap metal, such as cuttings and turnings, that is often downcycled to the ferro-titanium market. IperionX's innovative 'end-to-end' titanium supply chain solution can utilize multiple sources of titanium feedstocks, including scrap titanium and U.S. titanium minerals, to re-shore domestic titanium production and manufacture lower cost and more sustainable high-performance titanium products.

U.S. GOVERNMENT ACTIVITIES

In September 2024 IperionX hosted U.S. Senator Mark Warner at the IperionX Titanium Manufacturing Campus along with other local officials and community stakeholders from Southern Virginia.

The U.S. government has requested information and proposals for providing additional government funding to re-shore a secure, low-cost and sustainable domestic titanium supply chain. These opportunities are also focused on titanium supply chains that utilize both scrap titanium and U.S. titanium minerals as feedstocks. IperionX is well positioned to qualify for these additional U.S. government funding opportunities to scale domestic titanium production and manufacturing capacity.

A select list of U.S. government funding opportunities is shown below:

Agency	Program	Total program funding available (2024-2025) ¹
U.S. Department of Defense	IBAS – Casting & Forgings Infrastructure Investments	~US\$80m
U.S. Department of Defense	DPA – Ukraine Supplemental Bill Funding for Strategic and Critical Materials	US\$140m remains, as of March 2024
U.S. Department of Defense	DPA Title III – Casting & Forgings Initiative	~US\$80m
U.S. Department of Defense	SBIR Phase III	Up to US\$50-100M in funding
U.S. Department of Energy	48C Tax Credit Round 2	Up to 30% of qualified investment

Table 1: U.S. government funding opportunities

IperionX continues to progress its US\$11.5m equipment finance application with EXIM Bank.

¹ Estimates of total funds available under each program based upon Department of Defense FY25 budget request materials released in March 2024, and other U.S. government guidance. IperionX's potential access to these funding programs is subject to successful application, award and contract under each program.



Figure 8: Senator Mark Warner and IperionX CEO Anastasios Arima at the Titanium Manufacturing Campus

TITAN CRITICAL MINERALS PROJECT

Strategic & offtake partners - multiple companies in advanced due diligence

IperionX continues to receive strong commercial interest in the Titan Project's critical minerals, including titanium, rare earths and zircon. A major Japanese conglomerate continues to undertake metallurgical test work to advance potential sales offtake and development financing, with a range of other commercial opportunities for potential offtake/investment at the Titan Project, paving the way for potential offtake agreements and development financing.

A range of other partnering options, including the U.S. Government, remain as potential sources of development finance for the Titan Project

IperionX has completed key long lead assessments for the Titan Project Pre-Feasibility Study (PFS) and / or Feasibility Study, including metallurgical test work and permits. Titan Project technical studies (PFS and / or Feasibility Study) are anticipated to be advanced and completed following the culmination of the below activities, which may conclude in late 2024:

- Completion of Green Rutile™ pilot process design studies, for full integration into the final Titan Project PFS and / or Feasibility Study
- Potential U.S. Government funding opportunities, including a recently submitted application to co-fund the Titan Project PFS and / or Feasibility Study, and co-fund the scale-up of IperionX's mineral enrichment technologies and the Virginia Titanium Manufacturing Campus
- Potential funding and product offtake options from strategic investors that are moving towards advanced stages of negotiations

IperionX's patented low-carbon "Green Rutile™" mineral enrichment technology advanced during the quarter and has been successfully proven at a bench scale, with pilot scale production design now underway for completion in 2024.

IperionX has the potential to add significant value to the Titan Project's titanium minerals using the patented mineral upgrading technologies, Green Rutile and ARH, and produce low-cost and high-purity titanium feedstock for IperionX HAMR titanium production facilities.

Phase 4 drilling results

Final results from the Phase 4 drilling program have been received and are included in Appendix 1. Although not considered material, the drilling results continue to highlight the consistent grade and thickness of mineralization at the Titan Project.

The Phase 4 drill program was focused on infill drilling at the Titan Project in order to increase confidence in understanding mineral distributions. These areas targeted potential high-grade portions of the deposit highlighted through the mineral resource estimate that required increased drill density.

The drilling results confirmed the predicted mineralization. Select intercepts from 55 holes of the program are set out below:

Drill Hole ID	Result
21-SCB-215	44.2m @ 2.53% HM including 16.8m @ 4.94% HM
21-SCB-216	50.3m @ 2.12% HM
21-SGP-305	29m @ 3.14% HM including 10.7m @ 6.67% HM
21-SGP-306	40m @ 2.39% HM including 10.7m @ 4.97% HM
21-SGP-312	42.7m @ 2.63% HM including 13.7m @ 5.27% HM
21-SGP-317	47.2m @ 2.2% HM including 15.2m @ 4.31% HM

Table 2: Select drilling intersections

BALANCE SHEET AND CORPORATE

Cash of US\$30.4 million at September 30, 2024.

During the quarter, IperionX received US\$1.7 million from the US\$12.7 million DPA Title III funding award to fund the first phase development of the Virginia Titanium Production Facility. A total of US\$6.4 million has been received to September 30, 2024, with US\$6.3 million remaining available to be drawn upon from the DPA Title III funding award.

On September 23, 2024, IperionX was included in the S&P/ASX 300 Index, which tracks the performance of up to 300 of Australia's largest publicly listed companies.

ASX - ADDITIONAL INFORMATION

Mining properties – Titan Critical Minerals Project

The Titan Project is prospective for critical mineral sands including titanium minerals, rare earth minerals, high grade silica sand and zircon minerals. As of September 30, 2024, the Titan Project comprised approximately 11,054 acres of surface and associated mineral rights in Tennessee, of which approximately 1,486 acres are owned by IperionX, approximately 242 acres are subject to long-term lease by IperionX, and approximately 9,326 acres are subject to exclusive option agreements with IperionX. These exclusive option agreements, upon exercise, allow IperionX to lease or, in some cases, purchase the surface property and associated mineral rights.

Mining exploration expenditures

During the quarter, the following payments were made for mining exploration activities:

Activity	US\$000
Land consultants	(4)
Metallurgical test work	(2)
Community relations	(10)
Data and imagery	(1)
Field supplies, equipment rental, vehicles, travel and other	(9)
Total as reported in Appendix 5B	(26)

Table 3: Mining exploration expenditures

During the quarter, IperionX made no payments in relation to mining development or production activities.

Related party payments

During the quarter, IperionX made payments of US\$325,000 to related parties and their associates. These payments relate to executive directors' remuneration, non-executive directors' fees, employer 401(k) contributions, and superannuation contributions.

ABOUT IPERIONX

IperionX aims to be the leading American titanium metal and critical materials company – using patented metal technologies to produce high performance titanium alloys, from titanium minerals or scrap titanium, at lower energy, cost and carbon emissions.

Our Titan critical minerals project is the largest JORC-compliant mineral resource of titanium, rare earth and zircon minerals sands in the U.S.A.

IperionX's titanium metal and critical minerals are essential for advanced U.S. industries including space, aerospace, defense, consumer electronics, hydrogen, electric vehicles and additive manufacturing.

This announcement has been authorized for release by the CEO & Managing Director.

Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding the timing of any Nasdaq listing, plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation, as well as other uncertainties and risks summarized in filings made by the Company from time to time with the Australian Securities Exchange and in the Form 20-F filed with the U.S. Securities and Exchange Commission.

Forward looking statements are based on the Company and its management's assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

There may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Except as required by applicable law or stock exchange listing rules, the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Persons Statement

The information in this announcement that relates to Exploration Results is based on information compiled and/or reviewed by Mr. Adam Karst, P.G. Mr. Karst is a consultant to IperionX. Mr. Karst is a Registered Member of the Society of Mining, Metallurgy and Exploration (SME) which is a Recognized Overseas Professional Organization (ROPO) as well as a Professional Geologist in the state of Tennessee. Mr. Karst has sufficient experience which is relevant to the style and type of mineralization present at the Titan Project area and to the activity that he is undertaking 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" (the 2012 JORC Code). Mr. Karst consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources is extracted from IperionX's ASX Announcement dated October 6, 2021 ("Original ASX Announcement") which is available to view at IperionX's website at www.iperionx.com. IperionX confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcement; b) all material assumptions and technical parameters underpinning the Mineral Resource Estimate included in the Original ASX Announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the Original ASX Announcement.

Appendix 5B

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

Name of entity

IperionX Limited

ABN

84 618 935 372

Quarter ended ("current quarter")

September 30, 2024

Consolidated statement of cash flows		Current quarter USD\$'000	Year to date (3 months) USD\$'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	500	500
1.2	Payments for		
	(a) exploration & evaluation	(26)	(26)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(2,306)	(2,306)
	(e) administration and corporate costs	(590)	(590)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	364	364
1.5	Interest and other costs of finance paid	(29)	(29)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material):		
	(a) research & development	(1,342)	(1,342)
	(b) business development	(83)	(83)
1.9	Net cash from / (used in) operating activities	(3,512)	(3,512)
2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	(128)	(128)
	(c) property, plant and equipment	(2,830)	(2,830)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter USD\$'000	Year to date (3 months) USD\$'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	(2,958)	(2,958)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	4,094	4,094
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	120	120
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(88)	(88)
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)		
	(a) principal portion of lease liabilities	(89)	(89)
3.10	Net cash from / (used in) financing activities	4,037	4,037

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	33,157	33,157
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,512)	(3,512)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,958)	(2,958)

Consolidated statement of cash flows		Current quarter USD\$'000	Year to date (3 months) USD\$'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	4,037	4,037
4.5	Effect of movement in exchange rates on cash held	(324)	(324)
4.6	Cash and cash equivalents at end of period	30,400	30,400

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 USD\$'000	Previous quarter USD\$'000
5.1	Bank balances	21,068	28,344
5.2	Call deposits	9,332	4,813
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)	30,400	33,157

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

	Current quarter USD\$'000
6.1 Aggregate amount of payments to related parties and their associates included in item 1	(325)
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

Mining exploration entity and oil and gas exploration entity quarterly report

7.	Financing facilities <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>	Total facility amount at quarter end USD\$’000	Amount drawn at quarter end USD\$’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.		
Not applicable			

8. Estimated cash available for future operating activities	USD\$'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(3,512)
8.2 (Payments for exploration & evaluation classified as investment activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(3,512)
8.4 Cash and cash equivalents at quarter end (item 4.6)	30,400
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	30,400
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	8.7

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 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?

Not applicable.

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?

Not applicable.

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?

Not applicable.

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: October 21, 2024

Authorized by: Chief Financial Officer

(Name of body or officer authorizing 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 authorized for release to the market by your board of directors, you can insert here: "By the board". If it has been authorized 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 authorized for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorized 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.

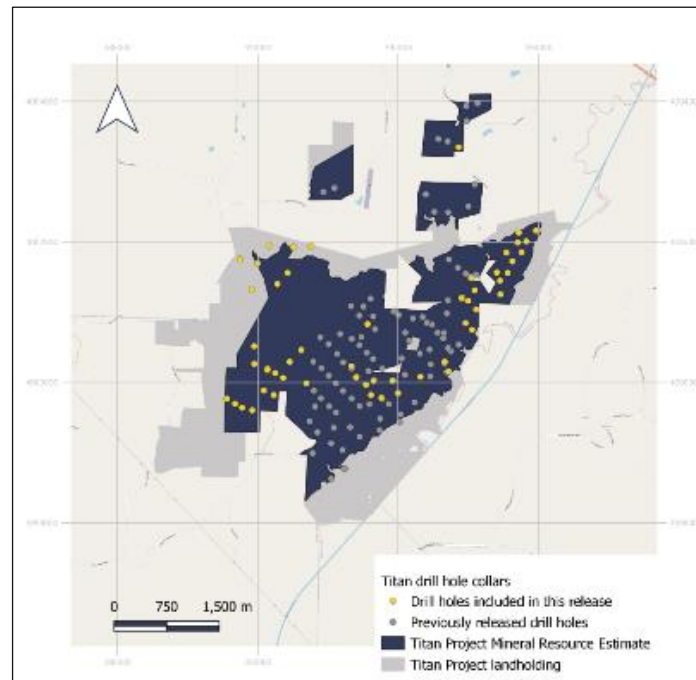
Appendix A – Titan Project Significant Drill Intercepts

Hole ID	Easting	Northing	Elev.	Az.	Dip	Depth		From	To	From	To	Intercept	HMT	Unit
			(m)	(°)	(°)	(m)		(ft)	(ft)	(m)	(m)	(m)	(%)	
21-STV-052	390137.8	4000176.9	166.90	0	-90	60.96		90	100	27.4	30.5	3.0	1.46	Upper McNairy
21-STV-053	391564.8	4000828.1	142.50	0	-90	48.77		40	160	12.2	48.8	36.6	1.77	Upper McNairy, Lower McNairy, Coon Creek
							including	95	125	29.0	38.1	9.1	3.33	Lower McNairy
21-SDW-062	390693.3	3999986.5	142.30	0	-90	48.77		65	160	19.8	48.8	29.0	2.58	Upper McNairy, Lower McNairy, Coon Creek
							including	135	160	41.1	48.8	7.6	5.31	Lower McNairy, Coon Creek
21-WTV-114	392862.1	4003347	137.70	0	-90	39.62		30	95	9.1	29.0	19.8	2.17	Lower McNairy
21-WTV-115	389915.2	4001319.9	148.87	0	-90	68.58		30	225	9.1	68.6	59.4	1.78	Upper McNairy, Lower McNairy, Coon Creek
							including	30	45	9.1	13.7	4.6	3.39	Upper McNairy
							and	175	225	53.3	68.6	15.2	3.2	Lower McNairy, Coon Creek
21-WTV-116	389948.4	4000513.3	163.06	0	-90	79.25		125	260	38.1	79.2	41.1	2.54	Upper McNairy, Lower McNairy, Coon Creek
							including	125	155	38.1	47.2	9.1	3.98	Upper McNairy
							and	230	260	70.1	79.2	9.1	5.67	Lower McNairy, Coon Creek
21-WTV-117	390139	4000196.4	166.73	0	-90	77.72		210	255	64.0	77.7	13.7	2.685	Lower McNairy
21-WTV-118	390620	4000460.3	158.91	0	-90	68.58		20	225	6.1	68.6	62.5	2.189	Upper McNairy, Lower McNairy
21-WTV-119	390455.5	4000292.3	157.59	0	-90	70.10		80	230	24.4	70.1	45.7	2.33	Upper McNairy, Lower McNairy, Coon Creek
							including	200	230	61.0	70.1	9.1	6.97	Lower McNairy, Coon Creek
21-WDW-130	391614.4	3999820.3	157.16	0	-90	60.96		20	200	6.1	61.0	54.9	3.468	Upper McNairy, Lower McNairy
							including	165	195	50.3	59.4	9.1	9.06	Lower McNairy
21-WDW-131	391762.3	3999777.5	147.44	0	-90	45.72		0	150	0.0	45.7	45.7	2.75	Upper McNairy, Lower McNairy, Coon Creek
							including	10	40	3.0	12.2	9.1	5.1	Upper McNairy
							and	125	150	38.1	45.7	7.6	6.29	Lower McNairy, Coon Creek
21-WDW-132	391999.1	3999846.4	142.98	0	-90	39.62		0	130	0.0	39.6	39.6	3.38	Top Soil, Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							Including	95	130	29.0	39.6	10.7	7.37	Lower McNairy, Coon Creek
21-WDW-133	391543.5	3999964.2	151.38	0	-90	51.82		0	170	0.0	51.8	51.8	2.95	Lower McNairy, Coon Creek
							Including	135	170	41.1	51.8	10.7	6.38	Lower McNairy, Coon Creek
21-WDW-134	391406.3	4000071.4	153.57	0	-90	53.34		10	175	3.0	53.3	50.3	2.20	Top Soil, Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							Including	145	175	44.2	53.3	9.1	6.6	Lower McNairy, Coon Creek

Hole ID	Easting	Northing	Elev.	Az.	Dip	Depth		From	To	From	To	Intercept	HMT	Unit
			(m)	(°)	(°)	(m)		(ft)	(ft)	(m)	(m)	(m)	(%)	
21-WDW-135	391336	4000231.9	156.14	0	-90	64.01		15	210	4.6	64.0	59.4	3.45	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							Including	45	90	13.7	27.4	13.7	6.54	Upper McNairy
							and	170	205	51.8	62.5	10.7	6.56	Lower McNairy, Coon Creek
21-WDW-136	392317.5	4000077.8	123.56	0	-90	21.34		10	70	3.0	21.3	18.3	3.93	Upper McNairy, Lower McNairy, Coon Creek
21-WDW-137	391918.5	4000022.5	148.72	0	-90	51.82		5	170	1.5	51.8	50.3	2.29	Top Soil, Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							Including	125	165	38.1	50.3	12.2	5.3	Lower McNairy, Con Creek
21-WDW-138	391648.9	4000021.4	148.62	0	-90	47.24		5	155	1.5	47.2	45.7	3.48	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
								120	155	36.6	47.2	10.7	6.33	Lower McNairy, Coon Creek
21-WDW-139	392716.7	4000157.9	118.52	0	-90	18.29		0	60	0.0	18.3	18.3	2.85	Top Soil, Lower McNairy, Coon Creek
21-WDW-140	392663.5	4000291.7	118.59	0	-90	18.29		0	60	0.0	18.3	18.3	2.95	Top Soil, Lower McNairy, Coon Creek
21-SGP-164	393090.7	4001311.8	143.85	0	-90	42.67		45	130	13.7	39.6	25.9	3.14	Upper McNairy, Lower McNairy, Coon Creek
							including	80	100	24.4	30.5	6.1	6.14	Lower McNairy
21-SCB-212	389746.1	4001754.6	124.14	0	-90	45.72		5	150	1.5	45.7	44.2	1.62	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
							including	95	150	29.0	45.7	16.8	3.15	Lower McNairy, Coon Creek
21-SCB-213	389997.1	4001694.2	121.13	0	-90	42.67		15	140	4.6	42.7	38.1	2.26	Upper McNairy, Lower McNairy, Coon Creek
							including	80	90	24.4	27.4	3.0	4.51	Lower McNairy
							and	115	140	35.1	42.7	7.6	4.83	Lower McNairy, Coon Creek
21-SCB-214	390161.5	4001946.3	117.45	0	-90	36.58		25	120	7.6	36.6	29.0	2.06	Upper McNairy, Lower McNairy, Coon Creek
21-SCB-215	390281.11	4001400.7	126.39		-90	45.72		5	150	1.5	45.7	44.2	2.53	Upper McNairy, Lower McNairy, Coon Creek
							including	95	150	29.0	45.7	16.8	4.94	Lower McNairy, Coon Creek
21-SCB-216	390426.3	4001559.9	136.16	0	-90	54.86		15	180	4.6	54.9	50.3	2.12	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
21-SCB-217	390506.6	4001923.4	115.85	0	-90	30.48		25	100	7.6	30.5	22.9	2.59	Upper McNairy, Lower McNairy, Coon Creek
21-SCB-218	390759.8	4001939.7	115.96	0	-90	30.48		15	100	4.6	30.5	25.9	2.28	Upper McNairy, Lower McNairy, Coon Creek
22-SGLPR-302	393963.9	4002160.3	118.29	0	-90	12.19		0	40	0.0	12.2	12.2	1.16	Lower McNairy, Coon Creek
22-SGLPR-303	393826.4	4002006.6	125.68	0	-90	18.29		0	50	0.0	15.2	15.2	5.5	Top Soil, Lower McNairy
22-SGLPR-304	393759.4	4001850.9	128.13	0	-90	21.34		5	60	1.5	18.3	16.8	3.23	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
							including	25	50	7.6	15.2	7.6	6.24	Lower McNairy
22-SGP-305	393627.8	4001723.2	133.86	0	-90	30.48		0	95	0.0	29.0	29.0	3.14	Top Soil, Alluvium, Lower McNairy, Coon Creek
							including	40	75	12.2	22.9	10.7	6.67	Lower McNairy

Hole ID	Easting	Northing	Elev.	Az.	Dip	Depth		From	To	From	To	Intercept	HMT	Unit
			(m)	(°)	(°)	(m)		(ft)	(ft)	(m)	(m)	(m)	(%)	
22-SGP-306	393560.6	4001560	144.46	0	-90	39.62		0	130	0.0	39.6	39.6	2.39	Top Soil, Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	75	120	22.9	36.6	13.7	4.97	Lower McNairy, Coon Creek
22-SGLPR-307	393544	4001846.5	123.90		-90	21.34		0	60	0.0	18.3	18.3	4.04	Top Soil, Upper McNairy, Lower McNairy
							including	20	45	6.1	13.7	7.6	8.04	Lower McNairy
22-SGLPR-308	393718.9	4002132.6	116.88	0	-90	12.19		0	40	0.0	12.2	12.2	1.73	Top Soil, Lower McNairy, Coon Creek
22-SGLPR-309	393703.5	4001989.9	121.63	0	-90	15.24		0	40	0.0	12.2	12.2	3.11	Top Soil, Upper McNairy, Lower McNairy
							including	10	25	3.0	7.6	4.6	5.88	Lower McNairy
22-SGP-310	393451.1	4001446.6	145.46	0	-90	39.62		0	130	0.0	39.6	39.6	2.54	Top Soil, Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	90	130	27.4	39.6	12.2	5.21	Lower McNairy, Coon Creek
22-SGP-311	393406.1	4001563.2	140.99	0	-90	36.58		5	120	1.5	36.6	35.1	1.98	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
							including	85	105	25.9	32.0	6.1	5.1	Lower McNairy
22-SGLPR-312	393039.6	4001489	143.94	0	-90	45.72		0	140	0.0	42.7	42.7	2.63	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
							including	90	135	27.4	41.1	13.7	5.27	Lower McNairy, Coon Creek
22-SGP-317	392998.5	4001161.3	148.19	0	-90	48.77		5	160	1.5	48.8	47.2	2.2	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	100	150	30.5	45.7	15.2	4.31	Lower McNairy, Coon Creek
22-SGP-318	393113	4001037.5	141.88	0	-90	39.62		5	130	1.5	39.6	38.1	1.94	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	80	125	24.4	38.1	13.7	3.82	Lower McNairy, Coon Creek
22-SGLPR-319	393056	4000747.8	142.02		-90	36.58		35	120	10.7	36.6	25.9	3.15	Lower McNairy, Coon Creek
							including	75	95	22.9	29.0	6.1	6.84	Lower McNairy
22-SGLPR-320	392961.5	4000842.9	142.44	0	-90	39.62		5	125	1.5	38.1	36.6	1.68	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
22-SGP-321	392924.2	4001195.5	146.76	0	-90	45.72		5	150	1.5	45.7	44.2	2.1	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	110	150	33.5	45.7	12.2	4.52	Lower McNairy, Coon Creek
22-SGP-322	392903.2	4001200	146.76	0	-90	22.86		5	75	1.5	22.9	21.3	3.7	Top Soil, Upper McNairy, Lower McNairy, Coon Creek
							including	25	50	7.6	15.2	7.6	7.73	Lower McNairy
22-SGP-323	393457.2	4001252.1	131.38		-90	27.43		0	85	0.0	25.9	25.9	3.32	Top Soil, Lower McNairy, Coon Creek
							including	55	70	16.8	21.3	4.6	6.69	Lower McNairy
22-STV-324	390088.3	3999884.1	162.53	0	-90	76.20		170	250	51.8	76.2	24.4	3.11	Upper McNairy, Lower McNairy, Coon Creek
							including	220	245	67.1	74.7	7.6	8.27	Lower McNairy, Coon Creek
22-STV-325	389777	3999638.5	165.72	0	-90	79.25		180	260	54.9	79.2	24.4	1.66	Upper McNairy, Lower McNairy, Coon Creek

Hole ID	Easting	Northing	Elev.	Az.	Dip	Depth		From	To	From	To	Intercept	HMT	Unit
			(m)	(°)	(°)	(m)		(ft)	(ft)	(m)	(m)	(m)	(%)	
							including	235	255	71.6	77.7	6.1	3.5	Lower McNairy, Coon Creek
22-STV-326	389922.4	3999601.3	153.03	0	-90	67.06		205	220	62.5	67.1	4.6	6.86	Lower McNairy, Coon Creek
22-STV-327	389678.1	3999694.5	167.99	0	-90	82.30		35	270	10.7	82.3	71.6	1.34	Upper McNairy, Lower McNairy, Coon Creek
							including	190	270	57.9	82.3	24.4	3.16	Lower McNairy, Coon Creek
22-STV-328	389560.3	3999767	161.47	0	-90	79.25		15	260	4.6	79.2	74.7	1.01	Alluvium, Upper McNairy, Lower McNairy, Coon Creek
							including	80	95	24.4	29.0	4.6	2.13	Upper McNairy
							and	245	260	74.7	79.2	4.6	3.9	Lower McNairy, Coon Creek
22-STV-329	390228.1	3999820.6	147.25	0	-90	45.72	No Significant Intercepts							Upper McNairy, Lower McNairy
22-STV-330	390362.9	4000063.1	149.20	0	-90	60.96		140	200	42.7	61.0	18.3	3.79	Lower McNairy, Coon Creek
22-STV-331	390249.7	4000131.7	157.64	0	-90	70.10		175	230	53.3	70.1	16.8	3.5	Lower McNairy, Coon Creek
22-STV-332	389951.5	4000262.3	146.14	0	-90	67.06		130	220	39.6	67.1	27.4	2.76	Lower McNairy, Coon Creek



Titan Project drill hole collar location map

JORC Table 1 Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	- Nature and quality of sampling (eg cut channels, random chips, or specific specialized 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. - Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. - Aspects of the determination of mineralization that are Material to the Public Report. - 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 pulverized 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 mineralization types (eg submarine nodules) may warrant disclosure of detailed information.	- A roto-sonic drill rig, the Geoprobe 5140LS, utilized a 10 foot core barrel to obtain direct 5-foot samples of the unconsolidated geological formations hosting the mineralization in the project area. All holes were drilled vertically which is essentially perpendicular to the mineralization. The sonic cores were used to produce approximately 2kg samples for heavy liquid separation as well as further mineralogical analysis. 16 drill holes were sampled using Wallis RCD Air-Core drill rig, with sampling at 1.52m interval except where changes in lithology occurred. The samples were collected through a rotating sample splitter with samples typically weighing 2.5kg. The purpose of this program was to test the sample quality of this drill technique within the host materials.
Drilling techniques	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).	Most of the project drilling has been roto-sonic. This method alternates advancement of a core barrel and a removeable casing. The core barrel utilized for this project is 4" in diameter with a 6" diameter outer casing. The core barrel is retrieved from the ground and the samples are recovered directly from the barrel into a plastic sleeve. All holes are drilled vertically.
Drill sample recovery	- Method of recording and assessing core and chip sample recoveries and results assessed. - Measures taken to maximize sample recovery and ensure representative nature of the samples. - 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.	- Each core is measured, and the recovery is calculated as length of recovered core divided by length drilled (typically 10'). Some interpretation is involved as the material can expand or compact as it is recovered from the core barrel into the plastic sleeve. - The driller and geologist keep a careful eye on formation run-up into the casing as the core barrel is run down the hole for sample collection. Any run-up is removed from the casing prior to sampling. - The sonic drilling method has been shown to provide representative unconsolidated mineral sands samples across a variety of deposits as it is a direct sampling method of the formation(s). At times water is used to create a head on the formation to help prevent run-up.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	- Samples are logged for lithological, geological, and mineralogical parameters in the field to help aid in determining depositional environment, major geologic units, and mineralized zones. All samples are panned and estimates made for the %HM and %SL. - Logging is both qualitative (sorting, color, lithology) and quantitative (estimation of %HM, %SL) to help support the integrity of the Exploration Results. Photographs are taken of the sonic cores.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	- Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	Total depth of the drillhole is recorded. Samples are collected at regular (5 foot) intervals unless the geology/mineralogy warrant altering this as to co-mingle samples across major geological/mineralized boundaries. The total hole is logged by the field geologist and recorded in custom logging software on a Panasonic Toughbook (or similar) laptop. The data is transferred weekly to the project's GeoSpark database.
	- If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. - 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. - Whether sample sizes are appropriate to the grain size of the material being sample.	The unconsolidated sonic cores are sampled by splitting the core in half lengthwise using a machete then recovering an even fillet with a trowel along the entire length of the sample interval.
		 Do we have a better photo than this?)
Quality of assay data and laboratory tests	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - 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. - 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.	- Samples are collected directly to the pre-labeled/pre-tagged sample bags; the remaining sample is further split into a replicate/archival sample and what remains is used to backfill the drillhole. - A chip tray is maintained for each hole to keep a representative sample for each interval for later use during geological interpretation or between holes in the field. - Field duplicates are collected at a 3% rate by splitting the sample from the sonic core as described above into two samples bags. - The sample size (approx. 2kg) is appropriate for the type of material and concentration of the HM mineralization.
		- Standard mineral sands industry assay procedures (sizing 44-micron [325 mesh] for slimes and 595-micron [30 mesh] for oversize) heavy-liquid separation of an 85g split of the -30/+325 sand using methylene iodide. - Accuracy monitoring will be achieved through submission of in-house heavy mineral sand standard reference materials (SRM) developed specifically for the project. At least 5 repeat HLS of these materials were analyzed to establish an average value and standard deviation. A low-grade and a high-grade SRM were produced with materials (HMs and silica sand) from the project area. A quality control sample failure is any single sample 3 standard deviations from the true value for the comparison for each sample, or two out of three consecutive samples between 2 and 3 standard deviations, on the same side of the mean value (i.e. both above or both below the mean value). Should the errors for a particular batch exceed these limits, the section of a batch bracketed by the SRM samples (i.e. number samples on either side) should be re-analyzed. Overall, the objective of the quality assurance program for resource purposes should be a pass rate of >95%. A lower pass rate, on the order of 90% is acceptable for exploration purposes.

Criteria	JORC Code explanation	Commentary
		Twenty-one SRMs were submitted during the drilling campaign for analysis and results were all within 3 standard deviations of the mean of the SRM. - Sampling precision will be monitored by selecting a sample interval likely to be mineralized and taking a second fillet sample over the same sample interval. These samples should be consecutively numbered after the primary sample and recorded in the sample database as "field duplicates" and the primary sample number recorded. Field duplicates should be collected at the rate of approximately 3 in 100 samples and ideally should be collected when sampling mineralized sonic core intervals containing visible HM (panning). Random sampling precision will be monitored by duplicating core samples. Analytical precision will also be monitored using HLS duplicates that will need to be requested from the laboratory at a similar rate (i.e. 3 in 100 samples), with the duplicate HLS analysis to be completed on the duplicate core sample. Data from these two types of duplicate analyses can be used to constrain sampling variance at different stages of the sampling and preparation process. It is critical to record the primary sample of the field duplicate. By convention, this should be the preceding sample. Field duplicates should have an average coefficient of variation (CoV) <10%, whereas laboratory duplicates should have an average CoV <5%. For the drilling results reported 34 field duplicates were submitted to the laboratory with results showing a CoV of less than 10%. - The use of an 85 g sub-sample for heavy liquid separation (HLS) results in a relative precision of 4% based on repeat analyses of standard reference materials (SRM) at SGS. This sub-sample mass is therefore appropriate for the grain size being sampled. - Preliminary analysis of limited field duplicate splits indicates a relative precision of 8%, indicating sampling of drill material presents the greatest uncertainty in the sampling procedure.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	- The assay data are independently visually validated and cross-checked against the geology. This is done as the results are received and prior to geological modeling and resource estimation. - Twinned holes have not been used. Analysis of twin data for other similar deposits indicate that they are of limited value due to the inherent variability over small distances for this style of mineralization and it is the assessment of the Competent Person that the absence of twin data is not material to the accuracy of the Exploration Results and Resource Estimate. Twinned holes will be used if there is a change in drilling methods during the project to assess whether any bias exists with the different methods and how this bias may impact the integrity of the Exploration Results or Mineral Resource Estimate. - Data are collected in the field using both a field computer and a field notebook. Data are transferred weekly to the company network and verified against the field log book if questions arise. The data are checked and verified by the geologist completing the resource estimation to ensure there are no errors. Lab data are added as they become available and verified against the field geologist's visual HM grade and SL estimates. Any data in question that is not able to be rectified are removed from the database and not used in the reporting of Exploration Results or the estimation of the Mineral Resource. - The data appear to be in good order with no significant quality issues identified that will be material to the Exploration Results and Mineral Resource Estimate.
Location of data points	<i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	- All drillholes are surveyed after drilling with a hand-held GPS unit and the X and Y coordinates recorded in the project's database by the field geologist. Elevation data for each collar has been determined using publicly available topographic data. - The coordinate system used for the project is UTM (Zone16N).
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i>	Drillhole spacing varies at this early point in the project. Drill samples are collected at regular intervals (5 foot).

Criteria	JORC Code explanation	Commentary
	<i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i>	
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	The drilling and sampling have been orientated such to test the thickness and grade of the deposit(s). Holes are drilled vertically to give true thickness of the gently dipping mineralized units.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	- Samples remain in the custody of the field geologist from time of collection until time of delivery to the project's temporary storage location which is a secure third-party storage unit. - Samples are placed in rice bags and a red security tag secure the top. These tags are verified by the lab to guarantee all sample bags are intact.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No third-party review of the sampling techniques employed have been conducted. Only internal reviews and site visits by the Competent Person who is considered to have expertise in the drilling/sampling methods has been utilized.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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.</i> <i>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.</i>	- All areas reported are held under mining lease option agreements with mineral rights to owner. Negotiations are ongoing to secure additional parcels within the deposits. - No known impediments to obtaining a license to operate. License to operate is based on obtaining land access through mining leases with individual landowners as well acquiring local, state, and federal permits.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Several Heavy Mineral Sand (HMS) exploration campaigns have focused on this region over the past 60 years, with DuPont reportedly being the first company to investigate this region, followed by Kerr-McGee Chemical Corporation that had exploration success but never commenced mining. BHP Titanium Minerals had an interest in the region in the 1990's and Mineral Recovery Systems, a company associated with Altair International Inc., had significant activities in the region in the late 1990's, including land acquisition, drilling and metallurgical studies.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralization.</i>	The deposits are Cretaceous mineral sands deposits located in the Mississippi Embayment region of the U.S. These deposits consist of reworked deltaic sediments hosting HM mineralization. The deposits overly other deeper marine sediments and are overlain by more recent fluvial sediments.

Criteria	JORC Code explanation	Commentary
Drill Information	<i>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:</i> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <i>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.</i>	total of 144 drill holes for 4,407 HM assay samples (heavy liquid) and 138 HM mineralogy (QEMSCAN) have been completed to-date. A summary of representative HM intersections from the drilling is presented in tables in the main text and on the accompanying cross section(s). Refer to table in main text.
Data aggregation methods	<i>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.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	- No lower cut-offs have been applied. - Sample interval lengths are typically 5 feet. - No metal equivalent values are used in this report.
Relationship between mineralization widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</i> <i>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').</i>	Drillholes are vertical and drilled from ground surface through the entire mineralized thickness typically terminating in the Coon Creek Formation. The geological units in this area are near flat lying (slight westward dip) so mineralized thicknesses are close to true.
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include,</i>	Figures in text.

Criteria	JORC Code explanation	Commentary
	<i>but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
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.	Representative reporting of low and high grades has been employed within this report.
Other substantive exploration 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.	Not applicable
Further work	- The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). - Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable