

MARCH 2024 QUARTERLY REPORT

GREENVALE CLOSING-IN ON ALPHA PFS AS TEST PROGRAM 4 NEARS COMPLETION | HELIUM ACQUISITION IN CENTRAL AUSTRALIA ADVANCES TOWARDS COMPLETION

Highlights

Alpha Torbanite Project, QLD (100%-owned):

- Liquefaction Test Program 4 extended to include samples from the October 2023 drill program which embraced both the Upper and Lower Seams within the Alpha Resource. The extended program is now nearing completion and is expected to deliver robust oil yields.
- Greenvale to adopt a staged development approach to bitumen production, with preliminary studies supporting a conceptual design basis for an initial 100,000tpa bitumen processing plant at Alpha, later increasing to 200,000tpa. This would position Alpha to supply a portion of the rapidly growing demand for bitumen and blended products to meet local supplier and infrastructure needs.
- Pre-Feasibility Study (PFS) expected to be finalised in Q2 2024.

Geothermal Project, QLD (100%-owned):

- Native Title discussions for consent of exploration progressing well.

Georgina Basin IOCG Project, NT (20%-owned):

- Advanced geophysical modelling at the Central Georgina Project area has identified three off-hole gravity anomalies at Leichhardt East, Leichhardt West and Banks.
- High-ranking Leichhardt East target has strong IOCG characteristics as a high-density anomaly between regional faults with nearby copper-uranium-bismuth-silver anomalism intersected in previous drilling.
- Drilling planned to commence at Leichhardt East mid-year.

Corporate:

- Documentation progressed to achieve Ministerial consent from the Northern Territory government to effect the change in control of the highly prospective EP145 Permit in the Amadeus Basin in Central Australia. Completion date for the EP145 farm-in agreement with Mosman Oil & Gas extended to April 30, 2024. Ministerial consent is expected imminently.
- Conditional agreement with Astute Metals to sell Greenvale's remaining 20% interest in the Georgina Basin IOCG Project in the NT to Astute. Consideration is 5 million Astute shares on completion and a further 5 million Astute shares subject to the meeting of various milestones. Following completion of the transaction, Greenvale will increase its stake in Astute from 11.21% to 12.27%. Greenvale continues to hold a 2% net smelter royalty (NSR) over the Georgina Project, providing exposure to future upside.

Overview

Greenvale Energy Limited (ASX: **GRV** or **the Company**) continued to make positive progress during the March 2024 Quarter, with a primary focus on the completion of Liquefaction Test Program 4 for its 100%-owned Alpha Torbanite Project in Queensland and the transfer of operational ownership of highly prospective helium exploration permit, EP145, to the Company from Mosman Oil & Gas.

During the Quarter, the Company continued to progress Liquefaction Test Program 4 at Alpha to support the delivery of a Pre-Feasibility Study (PFS). Monash University is now nearing completion of the test program work, with a final bulk sample now being prepared to be sent to Technix for product identification and certification.

After consulting with the Company's technical advisors, the Greenvale management team extended Test Program 4 during the Quarter to include samples from the core holes acquired in October 2023, which embraced both the upper and lower seams within the Alpha Resource.

The additional testing is not expected to significantly delay the delivery of the PFS, which – assuming the smooth completion of the additional testwork – is now expected to be finalised and delivered in Q2 2024.

The Company is taking a staged approach to the project based on the development of two trains, with the design of Train 1 underpinned by the results of the Liquefaction Test Programs completed to date (Programs 1, 2 & 3) and preliminary indications from Test Program 4.

This information has informed the conceptual design basis of the plant, initially aimed at producing 100,000 tonnes of bitumen and blended products annually from 500,000 tonnes of mined Resource.

Train 2 would commence on completion of Train 1 construction, and would increase annual production to 200,000 tonnes of bitumen per annum by expanding the process plant and increasing mining by a further 500,000 tonnes, resulting in an estimated mine life of 20 years.

In addition to these advancements at Alpha, the Company has also progressed its proposed acquisition of a potentially ultra-high-grade helium, hydrogen and hydrocarbon opportunity in the Amadeus Basin in the NT. During the Quarter, the Company submitted all the required documentation and paid all necessary fees to the Northern Territory Government to enable the transfer of operational ownership of EP145 to Greenvale.

As Ministerial Consent is yet to be granted, Greenvale has agreed with the vendor, Mosman Oil & Gas, to vary the terms of the Farm-in Agreement to extend the completion date from 31 March 2024 to 30 April 2024. Should approval occur sooner, the parties will complete at an earlier date.

Projects

Alpha Project, Queensland

Background

The Company's flagship 100%-owned Alpha Torbanite Project is located approximately 50km south of the town of Alpha in Central Queensland. The Alpha torbanite deposit consists of two seams, an upper seam of mostly lower-grade mineralisation with an average thickness of 1.12m and a lower seam containing lenses of torbanite up to 1.9m thick. The Project has been subjected to extensive exploration and laboratory testing since its initial discovery in 1939.

During 2019, SRK Consulting Pty Ltd ("SRK") was engaged to reassess the project's commercialisation strategy. SRK's report set out a potential new development strategy based on the production of a diversified suite of value-added products. SRK noted that, in contrast with typical oil shale deposits, the Alpha torbanite deposit is exceptionally high-grade, containing up to 650 litres of hydrocarbons per tonne of torbanite, and can produce high-value bitumen products.

The upper and lower bituminous shales also produce similar products, albeit at lower yields of 110-140 litres per tonne. Additionally, the torbanite and bituminous shales can deliver high-quality value-added products through appropriate investment in processing infrastructure. SRK was engaged to undertake a staged work program to assist in evaluating the project's commercial viability.

Activities during the March Quarter

During the Quarter, the Company continued to progress with the current Liquefaction Test Program ('Test Program 4') and the delivery of a Pre-Feasibility Study (PFS) for the Alpha Torbanite Project.

The Alpha deposit is currently being analysed on a number of fronts in preparation for the delivery of the PFS. The key areas of mine planning, processing and product marketing are all taking shape, with considerable advancements also being made on the initial process plant design.

GRV is taking a staged approach to the project based on the development of two trains, with the design of Train 1 underpinned by the results of the completed Liquefaction Test Programs to date (Programs 1, 2 & 3) and preliminary indications from Test Program 4.

This information has informed the conceptual design basis of the plant, initially aimed at producing 100,000 tonnes of bitumen and blended products annually from 500,000 tonnes of mined Resource.

Train 2 would commence on completion of Train 1 construction and would increase annual production to 200,000 tonnes of bitumen per annum by expanding the process plant and increasing mining by a further 500,000 tonnes, resulting in an estimated mine life of 20 years.

As previously reported, the Company's current liquefaction testing regime has focused on the outcropping materials initially sampled when the program commenced some two years ago. The results to date have been extremely encouraging with the outcropping material achieving extremely high yields at temperatures of approximately 400°C.

The latest test program, Test Program 4, has seen the conditions under previous programs interrogated and then re-performed utilising core samples taken from a representative model across the maiden (2022) Mineral Resource Estimate (MRE) area.

On 13th November 2023, the Company announced a 51% increase in the size of the Alpha deposit (ASX Announcement: Substantial Increase to Alpha Resource). The updated Mineral Resource Estimate (MRE) saw a 9.4Mt increase in the total dry tonnes of the deposit, up from 18.6Mt in the maiden 2022 Resource to 28Mt of combined cannelite and torbanite.

This significant increase in the size of the Alpha deposit has meant that, in order for the additional 9.4Mt of cannelite and torbanite to be included in final modelling for the PFS, a supplementary sampling and liquefaction testing campaign will be undertaken on samples selected from of the 20 additional HQ core holes completed in early October 2023 (see ASX announcement, 2 October 2023).

The Company had previously envisaged that Liquefaction Test Program 4 would be sufficient to extrapolate the yield calculations across the additional 9.4Mt of Resource.

However, after consulting with the Company's technical advisors, the Greenvale management team believed it is prudent to extend Test Program 4 to include samples from the core holes acquired in October 2023 which embrace both the upper and lower seams within the Alpha Resource.

Given that Test Program 4 is nearing completion and that the testing apparatus, technical teams and third-party partners are all up to speed, it is not anticipated that the additional testing will result in a significant delay to the delivery of the PFS.

Assuming the smooth completion of the additional testwork, the Company expects to finalise and deliver the PFS in Q2 2024.

The projected mine life of 20 years is based on preliminary assessments only and this could be further extended via an additional Train 3. Any future expansions would be contemplated if further exploration of the known 10km strike length and further metallurgical test work justifies it. It is important to note that this estimate, while useful for initial planning, does not fully reflect the mine's operational potential and Resource base.

Drawing on the preliminary insights from Test Program 4, together with the conclusive results received from the initial three Liquefaction Test Programs, the Train 1 process plant will be designed to produce 100,000 tonnes of bitumen and blended products annually, underpinned by a robust and data-driven foundation.

This is further substantiated by several key operational efficiencies and technological innovations identified through these test programs and the broader development of the project's PFS.

Firstly, the mining operation benefits from the straightforward extraction of ore from two distinct and relatively shallow seams, ensuring a reliable and consistent ore feed. The feasibility of blending different ore layers at the mine face guarantees a steady supply to the plant, supported by the ease of crushing and the consistently low moisture content of the deposit, which eliminates the need for additional drying processes.

The strategic choice of an oil-based carrier, together with the plant's ability to adjust product yield with minor adjustments in temperature and residence time, exemplifies the flexibility and responsiveness of the design to operational needs.

The cost-effectiveness and availability of the catalyst, combined with the simplicity and affordability of construction techniques for solids preparation and processing equipment, adds to the plant's operational viability. The design incorporates environmentally sustainable practices, such as early separation of asphaltenes, energy recovery from by-products and the recycling of oils, contributing to the plant's operational efficiency and environmental performance.

Additionally, specific treatment processes are employed to ensure that solids returned to the mine are devoid of volatile hydrocarbons, further demonstrating the project's commitment to minimising its environmental impact. These operational insights, together with the commitment to tailoring products to meet local bitumen manufacturing demands, not only affirm the projected annual production volume but also enhance the plant's potential economic and environmental sustainability.

The final preliminary process plant design is reliant on proving up the deposit and process yields, work that Greenvale is currently completing.

Technical Discussion

Studies undertaken so far have included:

- Variability in the Outcrop ply – Torbanite and the Cannelite yield.
- Impact of temperature on the extent of conversion on Outcrop and Core on an “as received” and “dry ash free” basis.
- Impact of the use of a standard liquefaction catalyst versus no added catalyst.
- Impact of water versus oil as the carrier fluid to support the liquefaction studies.
- Impact of time on the extent of conversion.
- Comparison of yields versus Modified Fisher Assay (MFA) conversions.

The products have been analysed from a number of perspectives:

Variable	Result	Compared with MFA
Gas yield	Yield is reasonably constant at about 8 wt% average	Gas yield is about 8 wt%
Oil Yield Cannelite	Oil yield increases with temperature, finding the best conditions is on going	Similar oil yields can be achieved
Oil yield on torbanite	Better than for Coaly Shale as anticipated and follows the MFA results	Oil yield equal to and better than have been achieved
Blends	Results are quite predictable by the ratio of the masses and the respective liquefaction yields of the different ply from the deposit	Similar outcomes as anticipated for blends of ply when undertaking MFA, as results are proportional to the amount of respective ply represented
Using toluene as carrier of solids for a batch test	A product which has properties of the top hardness bitumen used in Australia were produced.	While not representative of the process on the proposed plant it is a clear demonstration of the type of products which are possible. The bulk samples were prepared at low temperatures of about 360C, increasing this to 400C increases yields and lightens the products. These tests are on going
Using water as a carrier in liquefaction trials	Good asphalt and relative low oil yields were achieved. Optimal processing conditions are relatively difficult to achieve in a batch reactor so the oil carrier had been favoured	

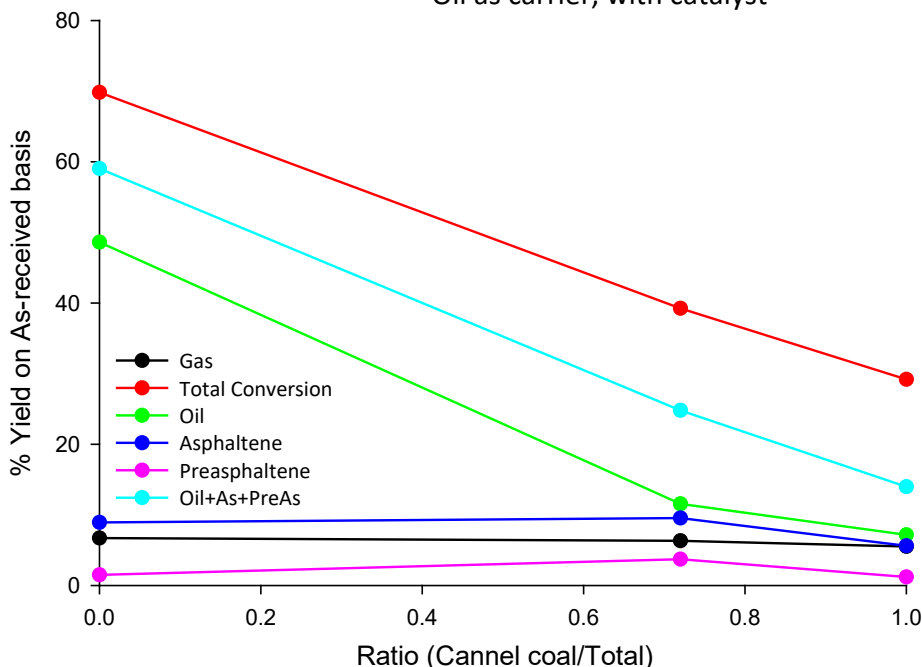
Variable	Result	Compared with MFA
Using a base lube oil as carrier	This shows promise with good yields above the proposed minimum are achievable. Yields better than MFA have been achieved, as is expected if the process has merit.	Ongoing work is nearing completion and the laboratory results will be added in to the development of the yield structure for the PFS.

Product is produced to achieve a high yield of the most productive blends:

- A range of samples have been produced for testing for use as and incorporating into bitumen.
- The campaigns are ongoing.
- The product quality will be targeting local bitumen main products which are based on viscosity.
- Greenvale has produced very high viscosity (over 880 Pa.sec), close to the top hardness for locally used bitumen. This was derived from low temperatures (370 – 380°C) and long residence times (over 60 minutes).
- Increasing the temperature of the reaction at lower residence times can reduce the viscosity of the oil closer to the 160 Pa.s for the prime bitumen products.
- Australia imports about one million tonnes of bitumen annually. The supply of 100,000 tonnes would not greatly affect a market if the supply is regular and of uniform specification, which is the benefit of this process over the production of bitumen from potentially variable refinery heavy bottoms.

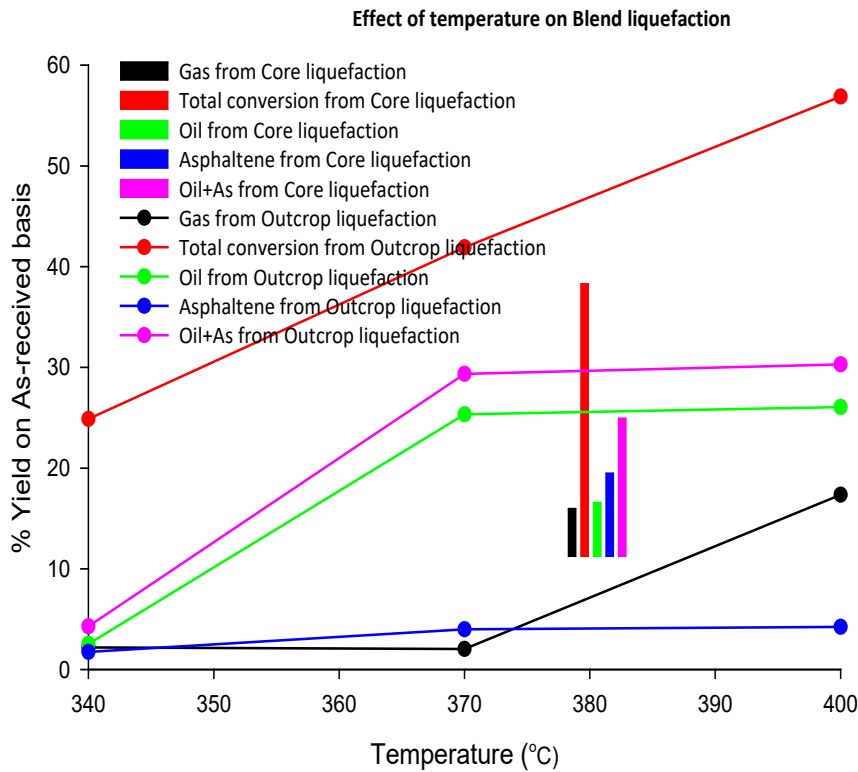
Figure 1.

TP4 Well 28,7MPa, 390-396°C for blend and 400-407°C for torbanite/cannel coal, Oil as carrier, with catalyst



The graph shows that processing of the cannellite and torbanite are not necessarily impacted by variations in their ratios, hence the blends of feed shale is a weighted average of their relative performance in isolation. This provides confidence that the processing yields for different blend ratios can be anticipated with confidence.

Figure 2.
 Comparison of yields for Outcrop materials (lines) versus yields for Core samples for Cannelite

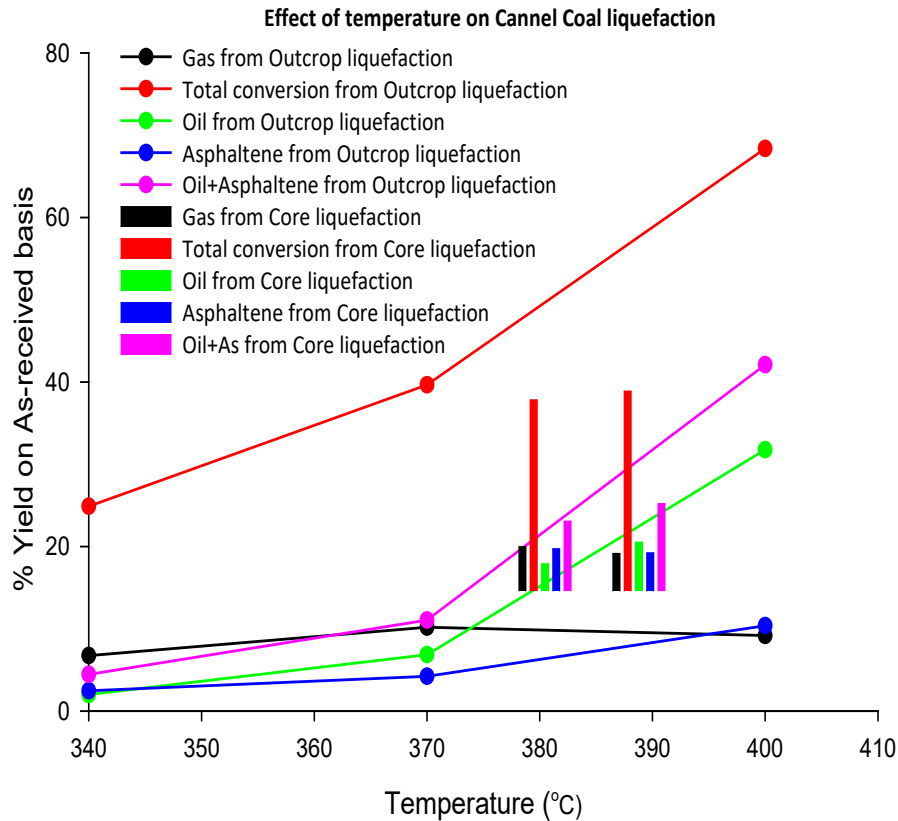


The results show similar yields for both Outcrop material (taken from the weathered zone) compared to Core taken from wells below the weathering zone. Outcrop material processes well compared with the Core material and should represent upside to the operation. Core material generally requires higher temperatures to achieve equivalent yields or a longer processing time.

Figure 3 below shows that the yields from the cannelite require longer processing times. Results show that the desired conversion of 30% is achievable and is largely unaffected by temperature for the Core, but the Outcrop materials were positively influenced by the increase in temperature towards 400°C at longer residence times.

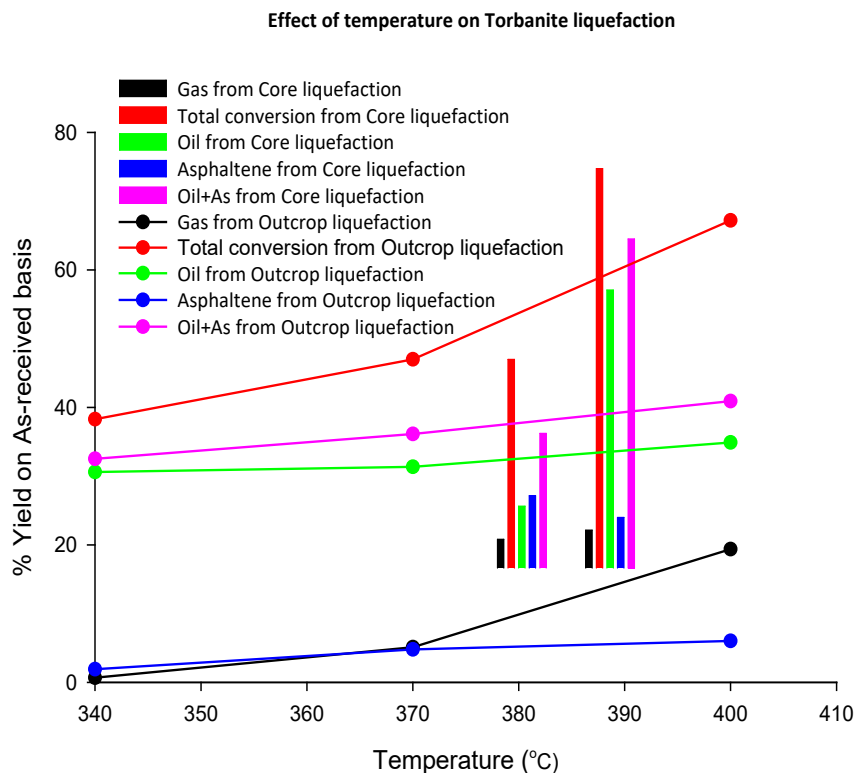
The process will be designed to achieve about 420°C as a maximum to ensure the best results are achieved dependent on the feed material to the plant.

Figure 3.



In the following graph, the impact of processing conditions on torbanite is shown for Outcrop and Core samples.

Figure 4.



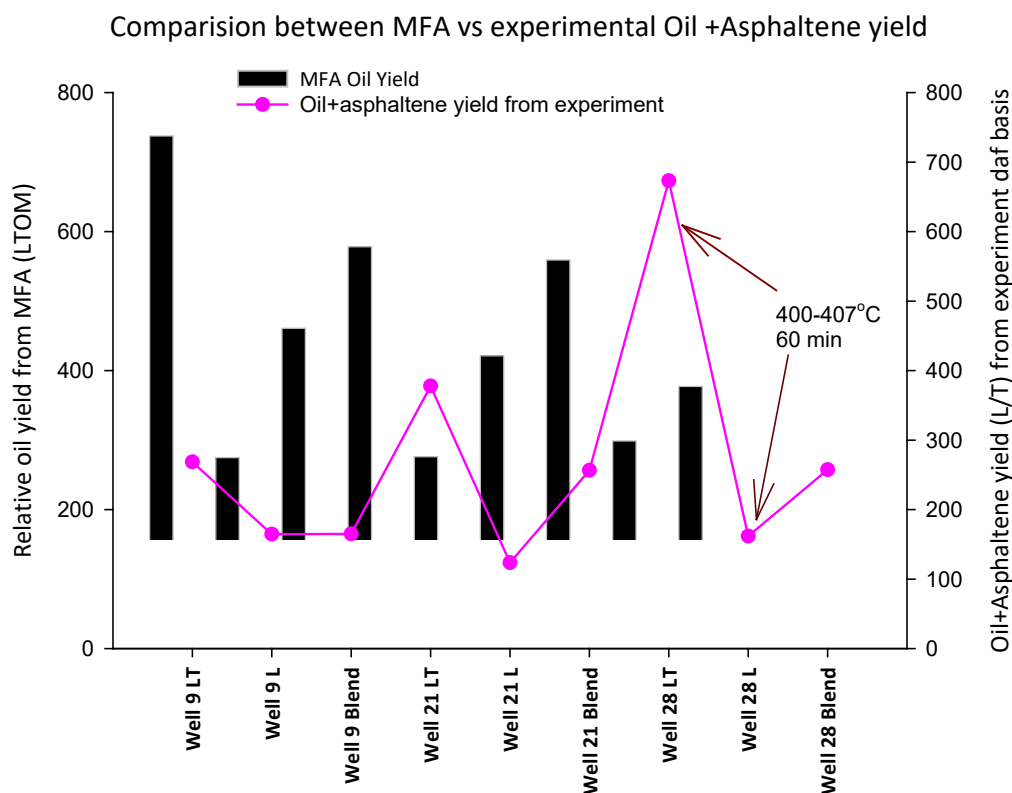
Only three points were studied for Outcrop processing and so the lines are only an estimate of how yields vary with temperature. However, the Core samples show the positive impact of only 10 degrees with overall conversion increasing from about 38% to over 65% at 400°C. Under these conditions, the Torbanite Core has performed better than the outcrop material.

A further comparison of yields is being undertaken to compare liquefaction yields with standard MFA yields for a number of Wells.

Product yields can be as high as MFA or higher. Results show that liquefaction does have advantages with the correct processing conditions, as can be seen from the following graphs which is plotting MFA in litres per dry tonne and the liquefaction yield also quoted in these terms using a Specific Gravity of 0.95.

Well 9 and Well 14 tests are being repeated by Monash to see if improved yields can be achieved in line with the later results for Well 28 under modified temperature and residence times.

Figure 5.



Comparison between MFA and experimental oil + Asphaltene yield from Well 9, 21 and 28 torbanite and cannelite are shown.

Note tests were conducted at 390 – 395°C for Wells 9 and 21 and higher for the torbanite and cannelite in Well 28 with conversion equal to or better than MFA for Well 28.

The tests on Well 9 were the first tests undertaken and the temperatures were lower at about 390°C. Increasing the temperature and time for Well 28 showed a marked increase in conversion of torbanite to above the MFA yields.

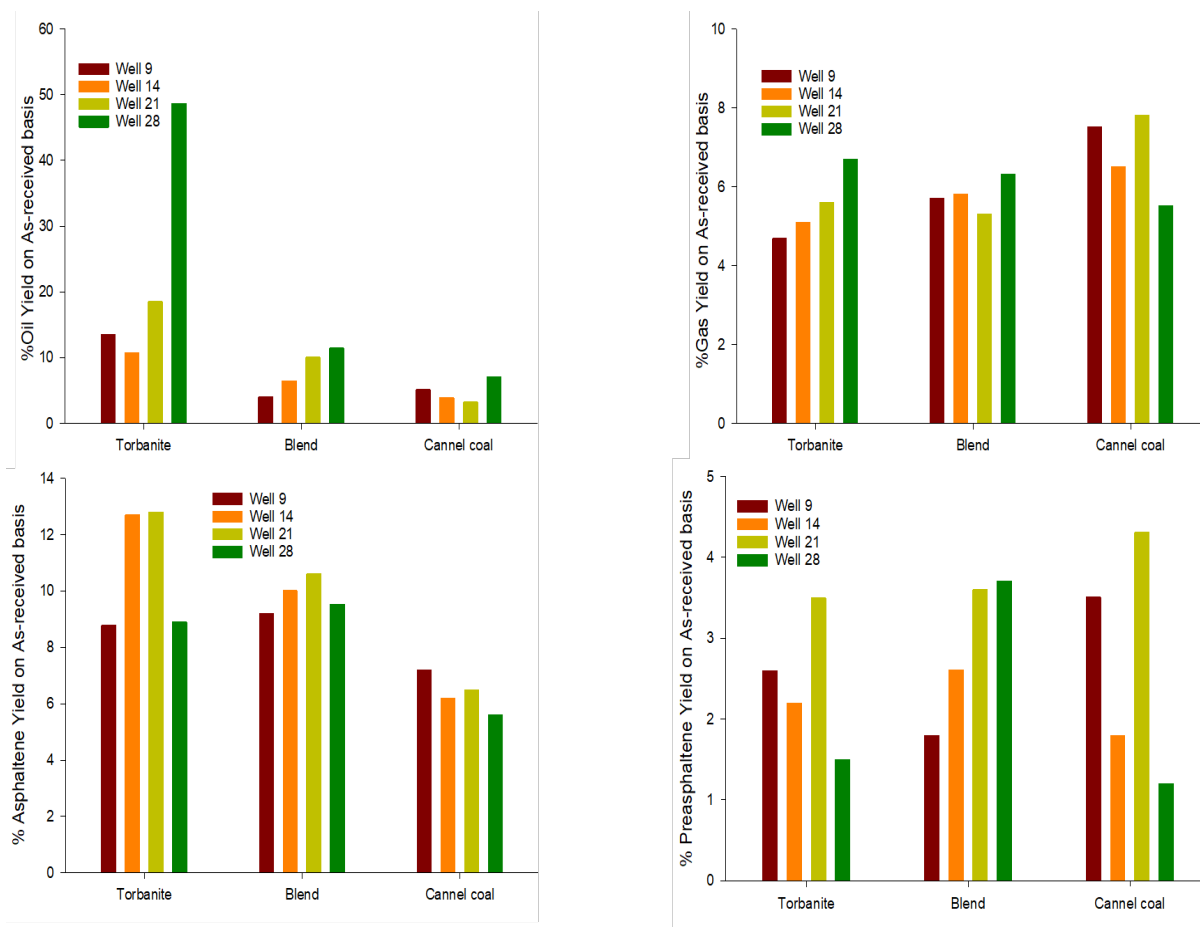
Supporting tests to evaluate yields against an additional number of wells which contain Upper Seam material are being conducted to confirm that higher yields than MFA are achievable in preparation for the PFS.

Analytical results are still coming in to provide more detail on the oil fractions produced and will be reported in due course.

The work to date is focused on an average yield of about 30 wt% of the mined material being processed into bitumen products on an average blend of torbanite with the cannellite. Where the torbanite concentrations are higher, there is potential for higher conversions than the target 30% average yield.

Figure 6.

Comparison of product yields obtained from liquefaction of shale from different wells under TP4



Note, the high yield of oil from torbanite in Well 28 achieved at slightly higher temperatures (390 to 405°C) shows a marked increase in conversion with negligible change in gas production and similar asphaltene contents. Confirmatory tests are being undertaken to demonstrate the higher yield can be achieved across other Wells.

The overall programs are now almost finished and, together with the final laboratory analyses, will provide added detail to the plant design and confidence in the yield values and the product structure of the yields.

Comparing different bore holes across the deposit under similar conditions provides a basis that the different ply will process comfortably to an average yield represented by the average mass portions of the yields of the separate ply. The test results also show that yield structure can be changed by relatively small variations in temperature and residence time to change products so as to make desirable products for the market.

Discussions are ongoing on the products and their quality to allow statements to be made in relation to the likely value of the products.

Geothermal Project, Queensland

Background

Greenvale and its wholly-owned subsidiary, Alpha Resources, is the 100% owner of a number of Exploration Licences in north Queensland with geothermal energy potential. Geothermal energy is the heat produced deep in the earth's core. Geothermal energy is regarded as a clean, renewable resource that can be harnessed for use as heat and electricity.

Activities during the March Quarter

GRV's geothermal program has continued to focus on the Millungera Basin, where the Company is exploring avenues for reducing well costs, including potential rig acquisition tailored to the project's needs. A detailed sub-surface review has commenced to provide a thorough sub-surface assessment to identify drilling risks and define subterranean stratigraphy more accurately.

One country meeting was held with the Mitakoodi and Mayi People in February with regards to consent to obtain agreement to the grant of exploration permits. Due to the number of parties involved, this is taking longer than originally anticipated and an agreement is now expected to be in place by Q3 2024.

Next Steps

- Finalisation of Native Title Agreement allowing the Queensland Government to grant EPG2023, EPG2024 and EPG2025.
- Continue with detailed sub-surface review to complete a thorough sub-surface assessment to identify drilling risks and define subterranean stratigraphy more accurately.

Georgina Basin IOCG Project, Northern Territory

Background

The Georgina Basin Project is owned by Knox Resources Pty Ltd (**Knox**), a company which is 20% owned by Greenvale and 80% owned by Astute Metals NL (ASX: ASE). As part of its ownership of Knox, the Company is required to contribute to the funding of its share of Knox's future costs. Greenvale is entitled to a 2% net smelter royalty (**Royalty**) for all Iron Oxide Copper Gold (**IOCG**) product exploited in the future from the existing tenements owned by Knox.

During the Quarter, the Company entered into a conditional contract for sale to sell its remaining 20% in Knox Resources to Astute Metals (see below).

Located in the highly prospective East Tennant province in the Northern Territory, the Georgina Project comprises seven granted Exploration Licences and three under application, for a combined total of approximately 4,500km² (Figure 10).

The East Tennant province has been the subject of intense geoscientific investigation by both Geoscience Australia and the Northern Territory Geological Survey for over five years. Pre-competitive work undertaken as part of the Federal Government's \$225 million Exploring for the Future program (EFTF) included solid geology interpretation, alteration proxy mapping and mineral prospectivity mapping for IOCG deposits.

The collaborative MinEx CRC National Drilling Initiative, conducted in late 2020, confirmed the highly prospective nature of the region by intersecting prospective host rocks, IOCG-style alteration and sulphide mineralisation as part of a 10-hole program at East Tennant.

IOCG deposits are typically large, economically attractive copper-gold deposits with some smaller high-grade variants – most notably those at Tennant Creek. This style of deposit contains elevated levels (10-60wt %) of the iron oxide minerals magnetite and hematite, which gives rise to their (typically) elevated magnetic and gravity (density) properties.

Australian IOCG deposits include South Australia's Olympic Dam, Prominent Hill, and Carrapateena deposits, Ernest Henry in north-west Queensland, and the high-grade Northern Territory Warrego and Juno deposits, located west of the Georgina Project at Tennant Creek.

Work During the Quarter

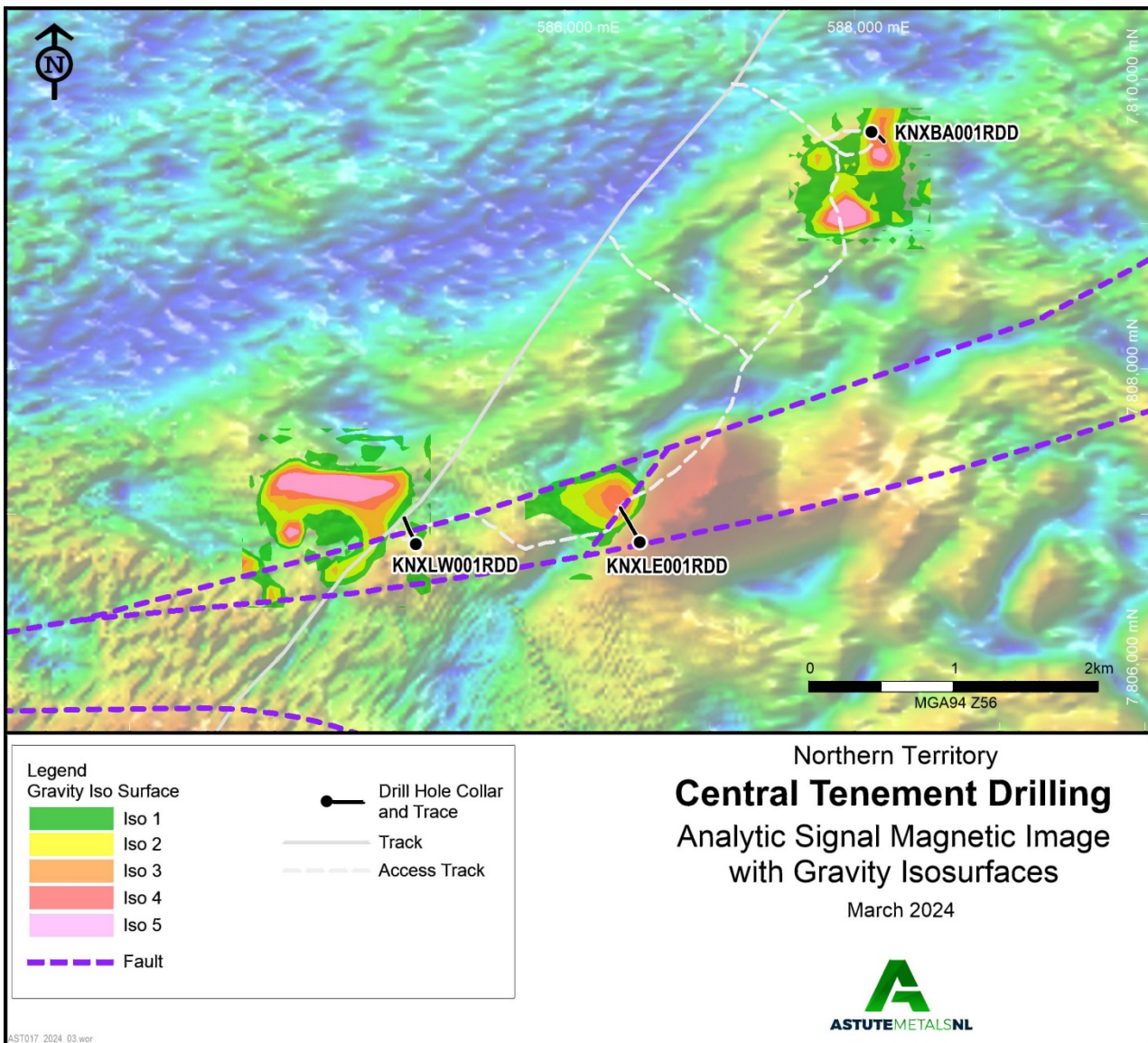
Work during the Quarter focused on the Central Georgina Project, namely the Leichhardt East, Leichhardt West and Banks prospects. Using data generated from the Ambient Noise Tomography (ANT) geophysical survey conducted in 2023, Knox engaged consulting group Mitre Geophysics (Mitre) to perform a constrained inversion of previously captured gravity survey data, with a view to removing the effects of the overlying Georgina Basin limestone cover rocks to produce a more accurate model for where prospective gravity (density) anomalies reside in the underlying basement.

A specialised workflow was developed by Mitre to bring together gravity, ANT survey and geological inputs to arrive at the final constrained inversion model for Leichhardt East:

1. A low-velocity zone that is interpreted to approximate the Georgina Basin limestone was identified in the ANT survey.
2. The lower contact of the low-velocity zone – a deliverable from the ANT survey – and a topographic surface were used to establish a modelling volume ("Geobody") for the Georgina Basin limestone.
3. The lower contact surface was bulk-shifted downward to match an average best fit with the lower contact of the Georgina Basin limestone in each of the five holes drilled in the central tenement area.
4. The Georgina Basin limestone was assigned a single density of 2.78, based on open file bulk wet density data from drill holes in the East Tennant region (Elkedra7, CKAF0001 and NTGS01/1).
5. The 3D Bouguer gravity response of the Georgina Basin limestone Geobody was calculated.
6. A basement-only gravity response was then calculated and resultant anomaly of interest at Leichhardt East was identified.
7. The anomaly of interest was inverted by two methods – a Windisp UBC inversion and an alternative solution using ModelVision for comparison.
8. 3D outputs from the inversion methods were compared and evaluated by a Mitre consultant geophysicist.

The results of the modelling identified discrete high-density gravity anomalies at each of the three prospects (Figure 7).

Figure 7.



Results - Leichhardt East

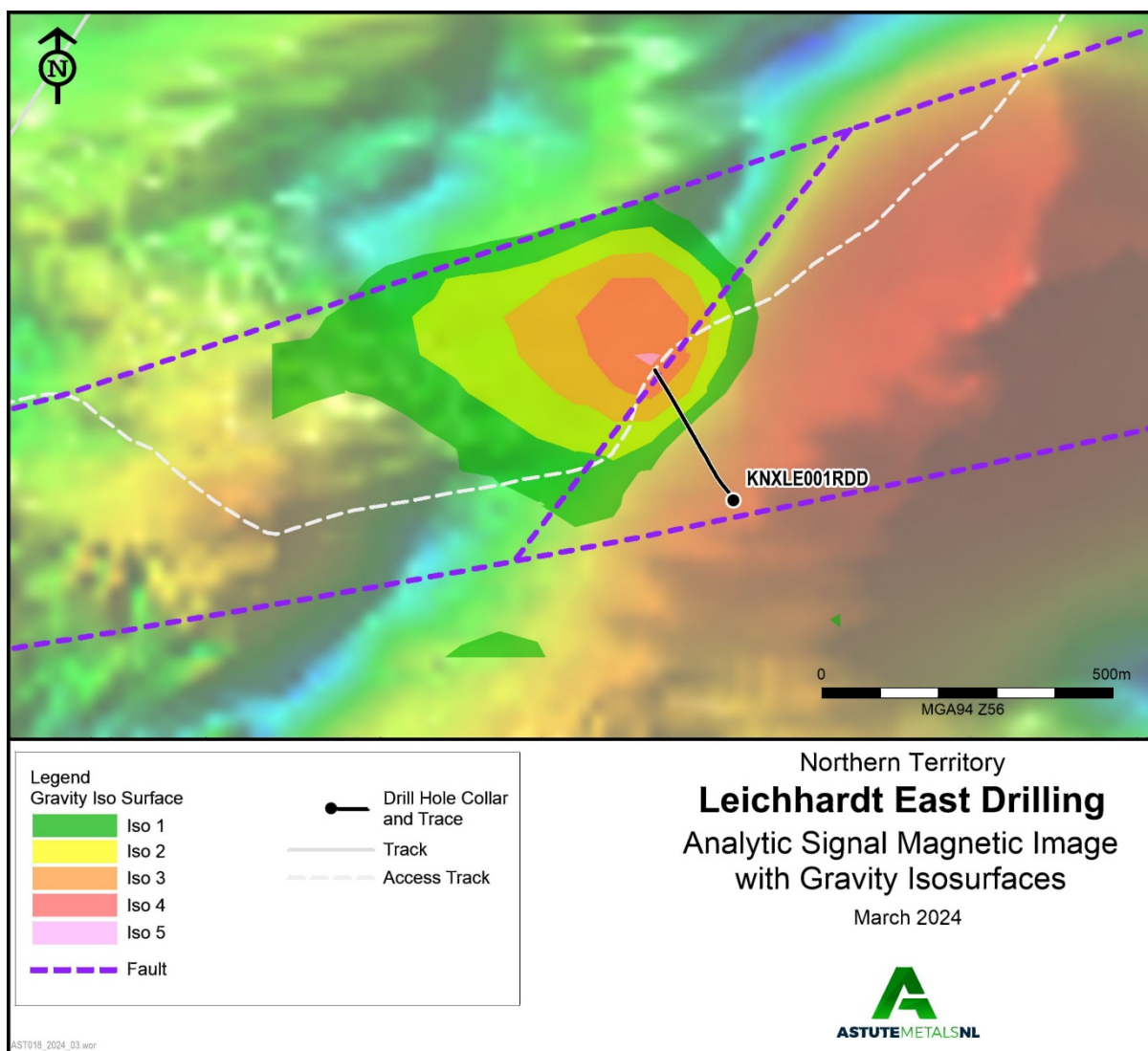
The models generated a high-density target approximately 200m off-hole from the Leichhardt East hole, KNXLE001RDD, which intersected significant polymetallic zones of mineralisation, including high-grade uranium (Figure 8). Intersections include:

- 0.32m @ 0.24% U₃O₈, 819ppm Cu and 0.15g/t Ag from 689.09-689.41m
- 0.90m @ 374ppm U₃O₈, 11.8ppm Bi and 78.6ppm Cu from 693.3-694.2m
- 0.75m @ 0.11% U₃O₈, 40.8ppm Bi and 0.11g/t Ag from 481.1-481.85m
- 1.04m @ 635ppm Cu and 0.26g/t Ag from 576.34-577.38m

In addition, the target has a favourable structural position, sited between two regional faults as part of the Geoscience Australia East Tennant dataset, and abutting an interpreted, potentially later or second order, fault marked by a thin zone of low-level magnetics cutting through moderate to high intensity magnetic response. As structures are fundamental to fluid flow in IOCG systems, this configuration of interpreted faults, nested around the dense modelled body and nearby elevated geochemistry, make Leichhardt East a highly compelling IOCG target.

A complete set of assay results for the Leichhardt East drilling can be found in the Company's ASX release dated 6 April 2023.

Figure 8.



Results – Leichhardt West

Two models were created to assess the residual basement gravity response at Leichhardt West. The Windisp model produced a series of nested isosurfaces, with the highest density isosurface having dimensions of approximately 800x150x100m.

The Windisp modelling does not allow for absolute densities to be derived for the isosurfaces, but the comparative parametric inversion model yielded three distinct geobodies with densities of 3.50g.cc, 3.82g.cc and 3.90g.cc, respectively.

The single hole drilled by Greenvale (when the project was 100%-owned by Greenvale) did not intersect the core of the modelled bodies, which is located some 200m north-east of the end of the drill-hole, however the hole did intersect a number of instances of low-grade copper mineralisation, including:

- 1m @ 0.10% Cu from 441-442m
- 1m @ 0.12% Cu from 445-446m

- 0.25m @ 0.22% Cu from 536.05-536.3m
- 1m @ 0.15% Cu from 600-600.8m (End of hole)

All of the above intersections were also associated with elevated bismuth and silver, metals that are commonly associated with IOCG mineralising systems.

Results – Banks

As with Leichhardt West, two models were created to assess the residual basement gravity response at Banks. The Windisp model produced a series of nested isosurfaces for two distinct density anomalies, with the most dense of these (the southern of the two) having approximate dimensions of 270x190x100m and the northern anomaly possessing a smaller dense ‘core’ of 100x100x150m. The comparative parametric inversion model yielded two dipping geo-bodies with the same density of 3.49g.cc.

The single hole drilled at Banks by Greenvale intersected the eastern edge of the northern model but has not effectively tested the core of this target, which can be seen in plan view in Figure 7. The Banks hole intersected low-level anomalism in copper, bismuth and silver, including:

- 3m @ 167ppm Cu, 1.02ppm Bi and 0.22g/t Ag from 325-328m
- 4m @ 226ppm Cu, 1.55ppm Bi and 0.43g/t Ag from 436-440m

In addition, the larger southern target at Banks remains completely untested and approximately 600m south of the existing hole (Figure 7).

A complete set of assay results for the Leichhardt West and Banks drilling can be found in the ASX release dated 10 February 2023.

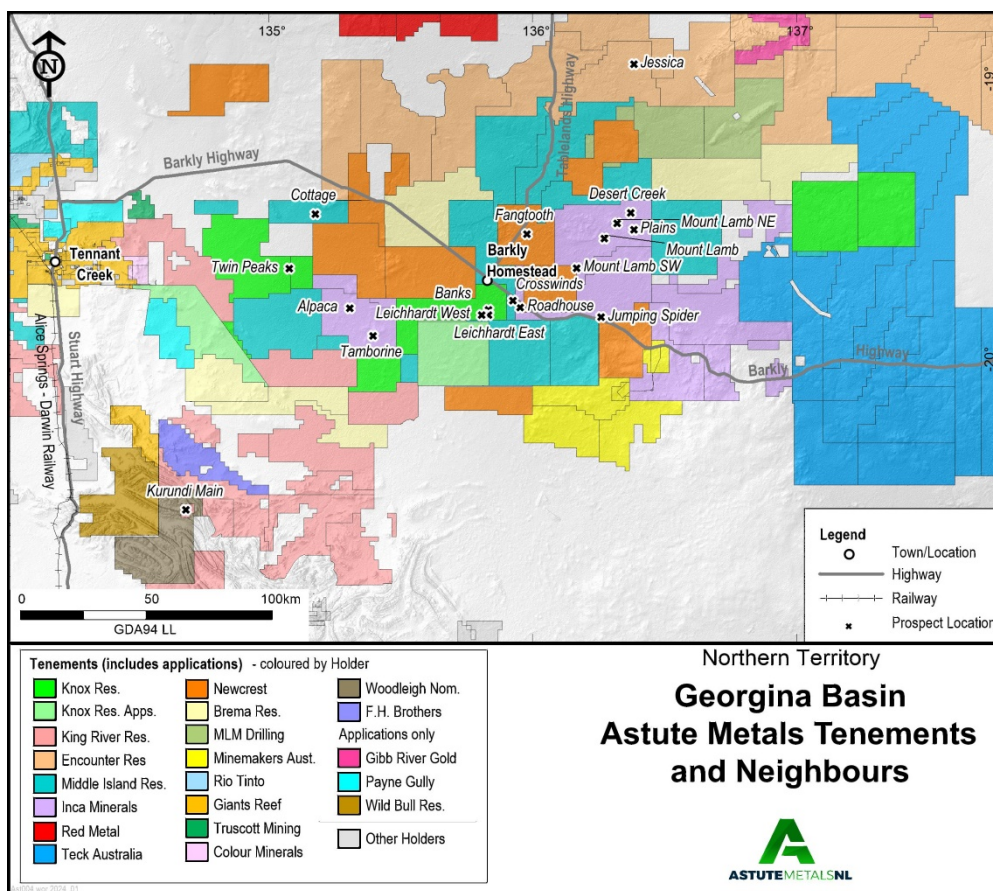
Next Steps

The completion of constrained gravity inversion modelling at three prospects in the central tenement area has revealed three compelling, untested, high-density IOCG targets, with nearby drill holes that exhibit elevated key IOCG pathfinder metals such as uranium, silver, bismuth and copper.

Knox has reviewed and evaluated each of the targets and has elected to proceed with drill testing of the high-density Leichhardt East target as a first step. Leichhardt East is considered to have the highest prospectivity based on its size, high-density character, structural location and depth to the target. This initial drilling will be undertaken in June/July 2024.

The initial hole will also provide proof-of-concept that the novel geophysical modelling approach undertaken by Knox is effective at identifying high-density targets under cover. Once proven successful, further drill holes will be designed and permitted for the Banks and Leichhardt West prospects.

Figure 9:



Corporate Activities

Acquisition of 75% interest in helium, hydrogen and hydrocarbon project in the Amadeus Basin, Northern Territory

As reported in the 31 December 2023 quarterly report, the Company executed a Farm-in Agreement with Mosman Oil & Gas Ltd (AIM: MSMN, “Mosman”) to acquire a potentially ultra-high-grade helium, hydrogen and hydrocarbon opportunity in the Amadeus Basin in Central Australia. Under the terms of the agreement, the Company’s wholly owned subsidiary, Greenvale Gas Pty Ltd (Greenvale Gas), is to acquire 75% interest in EP145 in the Northern Territory, which is 100%-owned by Trident Energy Pty Ltd (a wholly owned subsidiary company of Mosman Oil & Gas) (**Agreement**).

The only outstanding condition precedent is to obtain Ministerial Consent by the Northern Territory government for the change of ownership and the transfer of operator rights to Greenvale Gas. During the Quarter, the Company submitted all required documentation for the purposes of receiving such consent.

As Ministerial Consent is yet to be granted, Greenvale has agreed with Mosman to vary the terms of the Farm-in Agreement so that end date is extended from 31 March 2024 to 30 April 2024. Should approval occur sooner, the parties will complete at an earlier date.

As part of the transfer process, the invoice for the dealing and transfer fee for EP145 has been paid. While Northern Territory Ministerial approval has not yet been received as at the date of this release, it is expected in imminently.

Greenvale will continue to work with Mosman on the Year 3 Work Program, which is scheduled to be completed by August 2024.

Sale of 20% interest in Georgina Basin

During the Quarter, the Company entered into a conditional term sheet, and subsequently a contract for sale, in relation to its 20% shareholding in Knox Resources Pty Ltd (**Knox**), the 100% owner of the Georgina Basin Project in the Northern Territory, to Astute Metals NL (Astute) (ASX: ASE).

In consideration for the acquisition, Astute will pay to Greenvale:

1. On completion, 5,000,000 Astute fully-paid shares (Shares) at a deemed value of \$250,000 based on an issue price of \$0.05 per Share.
2. A further 5,000,000 Shares if, within a period of four years from completion of the acquisition, one of the following milestones are achieved:
 - (a) Via a Discovery, where Discovery is defined as a drill-hole that intersects:
 - (i) 100m at 1% Copper (Cu), or equivalent where the length multiplied by the length-weighted average grade in wt% units equals 100, provided a minimum intersection grade of 1% Cu (e.g. 10m @ 10% Cu, 50m @ 2% Cu); or
 - (ii) 100m @ 1.3g/t gold (Au), or equivalent where the length multiplied by the length-weighted average in g/t units equals 130, provided a minimum intersection grade of 1.3g/t (e.g. 10m @ 13g/t Au, 50m @ 2.6g/t Au); or
 - (b) a 100% sale of Knox or the Georgina Project to a third party; or
 - (c) a Mineral Resource Estimate, prepared according to JORC Code guidelines, where the Mineral Resource is located on any tenement area forming the Georgina Project, including those currently in application.

The sale remains subject to ASE shareholder approval.

Following the successful completion of the sale of its stake in Knox, Greenvale will increase its stake in Astute from 11.21% to 12.27%.

The sale allows Greenvale to:

- deploy its financial resources towards its energy projects and avoid the possibility of dilution in Knox in the event that it elects not to contribute; and
- convert its interest in the project from unlisted to listed status; and;
- retain a 2% net smelter royalty (NSR) in Georgina Basin and, to the extent that Astute can create value in the Georgina Basin Project, this will further enhance the value of this important asset.

ASX Additional Information

The Company provides the following information pursuant to ASX Listing Rule requirements:

1. **ASX Listing Rule 5.3.1:**

Exploration and Evaluation Expenditure during the Quarter was \$377,352. Full details of exploration activity during the March 2024 Quarter are set out in this report.

Below is the breakdown of the expenditure incurred during the March 2024 quarter:

Property	Nature of expenses	Amount (\$)
Alpha Project		
	Alpha Testwork	152,187
	Drilling costs	7,680
	Geology and geophysics	9,460
	Mining administration and environmental compliance cost	180,575
	Rents and rates	755
	Subtotal – Alpha Project	350,657
Geothermal Project		
	Compensation and Native Title	11,008
	Mining administration and environmental compliance cost	15,687
	Subtotal – Geothermal Project	26,695
Total Exploration costs		377,352

Table 1 Analysis of exploration expenditure for the March 2024 quarter

2. **ASX Listing Rule 5.3.2:**

The Company confirms that there was no mine production and development activities for the Quarter.

3. **ASX Listing Rule 5.3.5:** Payment to related parties of the Company and their associates during the quarter was \$120,800 in cash.

The Company advises that this relates to remuneration of Directors only. Please see the Remuneration Report in the Company's Prospectus for further details on Directors' Remuneration. Set out below is the following additional information in relation to the cash flow statement:

Name of Director	Nature of Payment	Amount (\$)
Neil Biddle	Ongoing Director fees, including superannuation entitlements	33,300
Elias (Leo) Khouri	Ongoing Director fees	-
Mark Turner	Ongoing Director fees, including superannuation entitlements	87,500
Total Director Remuneration		120,800

Table 2 Director's remuneration for the March 2024 quarter

Authorised for Release

This announcement and the accompanying Appendix 5B have been approved by the Board for release.

Contact

For further details, contact:

Mark Turner, CEO, 0459 519 999

Media Inquiries:

Nicholas Read – Read Corporate

Nicholas@readcorporate.com.au

Mobile: 0419 929 046

COMPETENT PERSON'S STATEMENT – ALPHA TORBANITE PROJECT:

The information in this report that relates to Metallurgical and Bitumen results is based on information compiled by Paul Griffin, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy AusIMM Member number 100234. Paul Griffin has sufficient experience that is relevant to the processing and testing of the bituminous and related materials under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Paul Griffin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

COMPETENT PERSON'S STATEMENT – ALPHA TORBANITE PROJECT MRE:

The information in this report that relates to Exploration Results is based on information compiled by Mr. Carl D'Silva, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member number 333432).

Mr. D'Silva is a full-time employee of SRK Consulting (Australasia) Pty Ltd, a group engaged by the Company in a consulting capacity. Mr D'Silva has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr. D'Silva consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

COMPETENT PERSON'S STATEMENT – GREORGINA BASIN IOCG PROJECT:

The information in this report that relates to Exploration Results is based on information compiled by Mr. Matthew Healy, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member number 303597).

Mr. Healy is a full-time employee of Astute Metals NL (formerly Astro Resources NL).

Mr. Healy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr. Healy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Tenements

In accordance with Listing Rule 5.3.3, Greenvale provides the following Information concerning its exploration licences:

Tenement Details

Alpha Project, Queensland

Tenement	%age Ownership	Owned by	Status
MDL 330	100%	Alpha Resources Pty Ltd	Current to 31 January 2027
EPM 27718	100%	Alpha Resources Pty Ltd	Current to 14 February 2026

Geothermal Project, Queensland

Tenement	%age Ownership Of Applicant	Applicant	Status
EPG 2023	100%	Greenvale Energy Ltd	Under Application
EPG 2024	100%	Greenvale Energy Ltd	Under Application
EPG 2025	100%	Greenvale Energy Ltd	Under Application
EPG 2029	100%	Greenvale Energy Ltd	Under Application

1. The mining tenement interests acquired during the quarter and their location

See the table above.

2. Beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter

The Company advises that during the December 2023 quarter, it entered into a farm-in arrangement to acquire a 75% interest in the EP 145 permit in the Northern Territory, which is 100% owned by Trident Energy Pty Ltd. The agreement remains subject to Ministerial Consent by the Northern Territory government approval for the 75% interest the transfer of the operator rights to Greenvale's subsidiary, Greenvale Gas Pty Ltd – which remained in progress as at 31 March 2024.

3. Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the quarter

Not applicable.

Appendix 5B

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

Name of entity

Greenvale Energy Ltd

ABN

54 000 743 555

Quarter ended ("current quarter")

31 March 2024

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	-	(80)
(b) development		
(c) production		
(d) staff costs		
(e) administration and corporate costs	(88)	(834)
1.3 Dividends received (see note 3)		
1.4 Interest received	1	5
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives	-	464
1.8 Other (provide details if material)		
1.9 Net cash from / (used in) operating activities	(87)	(445)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) tenements		
(c) property, plant and equipment		
(d) exploration & evaluation	(377)	(1,954)
(e) investments		
(f) other non-current assets		

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
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets	6	9
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	(371)	(1,945)

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	3,236	5,168
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(87)	(445)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(371)	(1,945)
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	2,778	2,778

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	560	518
5.2	Call deposits	2,218	2,718
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)	2,778	3,236

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	46
6.2	Aggregate amount of payments to related parties and their associates included in item 2	75

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.

More information concerning the breakdown of the above payments to directors and their related parties can be found within the accompanying Quarterly Activities Report.

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. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1	Loan facilities	3,000	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	3,000	-
7.5	Unused financing facilities available at quarter end		3,000
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.		
	<p>(a) <u>Loan facilities – directors</u></p> <p>The Company announced on 20 October 2022 that it had received a letter of support from its directors for \$3.00 million. The letter of support is to provide an unsecured loan to the Company, with the following terms:</p> <ul style="list-style-type: none"> • interest at 12.00% per annum; and • to be repaid at the earlier of the next capital raising (including an offer entitlement) or 18 months from when the final drawdown has been made by the Company. <p>(b) <u>Facility – Pioneer Resources LLC</u></p> <p>The Company has a facility with an institutional investor, Pioneer Resources LLC for \$4.320 million (inclusive of a premium paid). This facility was fully drawn at 31 March 2023.</p> <p>The facility is repayable by way of issue of ordinary shares in the Company, unless Greenvale otherwise elects to repay the facility in cash. For the purposes of Greenvale's Appendix 5B, the proceeds from this facility have been reflected as debt and not equity, as it represents the form of the proceeds received. However, given that the substance of the of the facility is/will be in the form equity, it has not been shown as part of the financing facilities under Response 7 above.</p>		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(87)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(377)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(464)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,778
8.5	Unused finance facilities available at quarter end (item 7.5)	3,000
8.6	Total available funding (item 8.4 + item 8.5)	5,778
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	12.45
	<i>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.</i>	

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

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

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer:

Not applicable, as Item 8.7 is greater than 2 quarter.

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer:

Not applicable, as Item 8.7 is greater than 2 quarter.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

Not applicable, as Item 8.7 is greater than 2 quarter.

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: **26 April 2024**

Authorised by: **The Board of Directors of Greenvale Energy Ltd**
(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.