

ASX ANNOUNCEMENT

29 October 2021

Quarterly Activities Report

For the period ending 30 September 2021

Paterson Copper Project Portfolio

- **Nifty Heap Leach Restart development activities during the Quarter included:**
 - **Mineral Resource infill and extensional drilling programmes**
 - **Metallurgical column testwork commenced, delivering excellent results**
 - **Restart surveys for regulatory approvals, with documentation being compiled**
 - **Engagement with Traditional Owners and Government authorities continuing**
 - **Evaluation of constructing a new versus refurbished SX-EW plant completed**
 - **Front End Engineering and Design commenced with scheduling of long lead items**
 - **Refurbishment of the SX-EW plant commenced with engineering crews on site**
 - **Appointment of key management and technical roles for site continuing**
- **Maroochydore Mineral Resource infill and extensional drilling programme commenced**

Murchison Copper-Gold Project

- **Third diamond drill hole (NWD2003) at Nanadie Well continues to intersect extensive shallow sulphide copper-gold mineralisation returning 180m @ 0.6% Cu and 0.2 g/t Au from 10.0m**

Corporate

- **Cyprium ended the quarter with a cash balance of \$40.0 million**

Managing Director Barry Cahill commented:

“The development activities at the Nifty Copper Project continue to accelerate.

Resource definition and extensional drilling programmes at Nifty are ongoing. The Nifty East drilling has firmed up our understanding of the copper mineralisation extending from the former Nifty open pit and demonstrates excellent potential to grow the resource eastwards at depth.

The stronger than expected copper mineralisation intersected in the first metallurgical diamond hole, includes native copper observed in 3 distinct zones, which lies in the extension of the former Nifty open pit.

A detailed Mineral Resource review of the Nifty deposit has been undertaken and open pit optimisation work for the Heap Leach Restart Study has commenced.

The metallurgical column testwork on the trench samples is progressing well and the optimisation of the leaching process for Nifty is proceeding.

A new versus refurbished SX-EW plant study was completed which determined that a refurbishment of the existing SX-EW plant can be completed in a significantly shorter timeframe at approximately half the estimated capital cost, whilst still achieving operational efficiencies from technological improvements within the EW plant.

The refurbishment engineering and design work is underway along with mobilising contractors for the SX-EW refurbishment activities. The Nifty camp refurbishment also commenced during the quarter.

We continue to engage with the Traditional Owners and have completed the environmental survey work required for the Heap Leach Restart in preparation for governmental submissions so that the regulatory approval timelines can be finalised.

The new quarter will result in the completion of a number of milestones for the Nifty Copper Project, including completion of the Mineral Resource Review, Metallurgy Review, Restart Study, Approvals Timeline and Project Schedule. Results of each of the stages will be released as they are finalised.

I recently visited our Maroochydore Copper Project, which is another exciting copper development opportunity for Cyprium. We are on the pathway to unlocking significant value at this deposit, where we need to remind ourselves that it currently hosts 486,000 tonnes of copper with a footprint for the oxide resource that is more than 3 kilometres long.

The shallow oxide mineralisation, which has been defined between depths of only 20 metres to 150 metres, remains open along strike and down-dip. The current drilling programme aims to increase geological confidence and extend the mineralisation to grow the resource. Diamond drilling is being undertaken to obtain core samples for use in metallurgical test work. The sulphide mineralisation has only been lightly drilled and is open along strike and down-dip.

Diamond drill hole NWD2003 drilled into the central section of the Nanadie Well deposit at our Murchison Project returned another strong intersection of 180 metres at 0.6% copper and 0.2 g/t gold from just 10 metres below surface. The mineralisation at this extensive shallow deposit remains open in multiple directions.”



Image 1 / Overhead crane removal from Electrowinning Plant



Cyprium Metals Limited (**ASX: CYM**) (“Cyprium” or the “Company”) is pleased to provide the following overview of the Company’s activities for the September 2021 quarter.

Nifty Copper Project

Resource Definition Drilling

There is a substantial existing Mineral Resource base of more than 650,000 tonnes contained copper at Nifty, which remains open both up and down plunge of the host syncline. Technical studies and in-fill drilling of the existing mineralised envelope commenced during the June 2021 quarter.

There is considerable potential to increase the Mineral Resources, including upgrading of the historical oxide mineralisation, based on a detailed review of the existing geological data and the extensional reverse circulation (“RC”) and diamond drilling programmes currently in progress. Open pit optimisation of the Mineral Resource has also commenced for Cyprium’s Heap Leach Restart study.

Eastern Drilling

A 3,000m RC drilling programme was completed, targeting areas of potential oxide/transitional mineralisation extending to the east of the Nifty open pit (Figures 1 and 2).

The programme was designed to increase the density of drilling over the sparsely tested eastern extension of the existing resource where limited previous drilling had intersected encouraging widths of oxide and transitional zone copper mineralisation. This area is being drilled to an appropriate density to add to the base load resource for Cyprium’s Heap Leach Restart.

Holes 21NRSP001 (21m at 0.45% Cu, including 5m at 1.28% Cu), 21NRSP016 (10m at 0.37% Cu) and 21NRSP015 (3m at 0.62% Cu, including 1m at 1.22% Cu and 5m at 0.39% Cu) confirmed the eastern extensions to the Nifty mine host carbonate-shale sequence (Figures 3 and 4). To the immediate south, a sub-parallel zone of interpreted supergene copper mineralisation was intersected in a previously untested zone that will be followed up in the next phase of drilling.

Western drilling

A 16,000m RC drilling programme to test for potential up-plunge extensions to the oxide and transitional mineralisation at the western extremity of the Nifty open pit is well advanced. The mineralisation in this area was of lower confidence, being mostly in the Inferred Mineral Resource category, due to the sparse drilling density. A second RC drill rig is currently at the Maroochydore Copper Project and will return towards the beginning of the wet season to complete the remaining shallow holes.

Metallurgical drilling

Diamond drilling was undertaken to obtain representative samples of the in-situ copper mineralisation around the Nifty open pit for column leach testwork. Whilst over 200,000 tonnes of copper metal plate has been produced at Nifty historically and the metallurgy is well understood, it has been over a decade since new methods have been tested, particularly the unique methodology utilised by Cyprium on its Hollandaire resource.

The first metallurgical diamond hole 21NDMT001 was drilled into the existing resource at the eastern end of the Nifty open pit (Figure 1). The hole intersected native copper, chalcocite and covellite at downhole depths of 129.8 to 133.3m, 141.3 to 152.3m (Images 2 and 3) and 154.6 to 155.4m. A further two metallurgical hole were completed in the same area.



Figure 1 / Nifty Copper Project drilling locations (local grid)

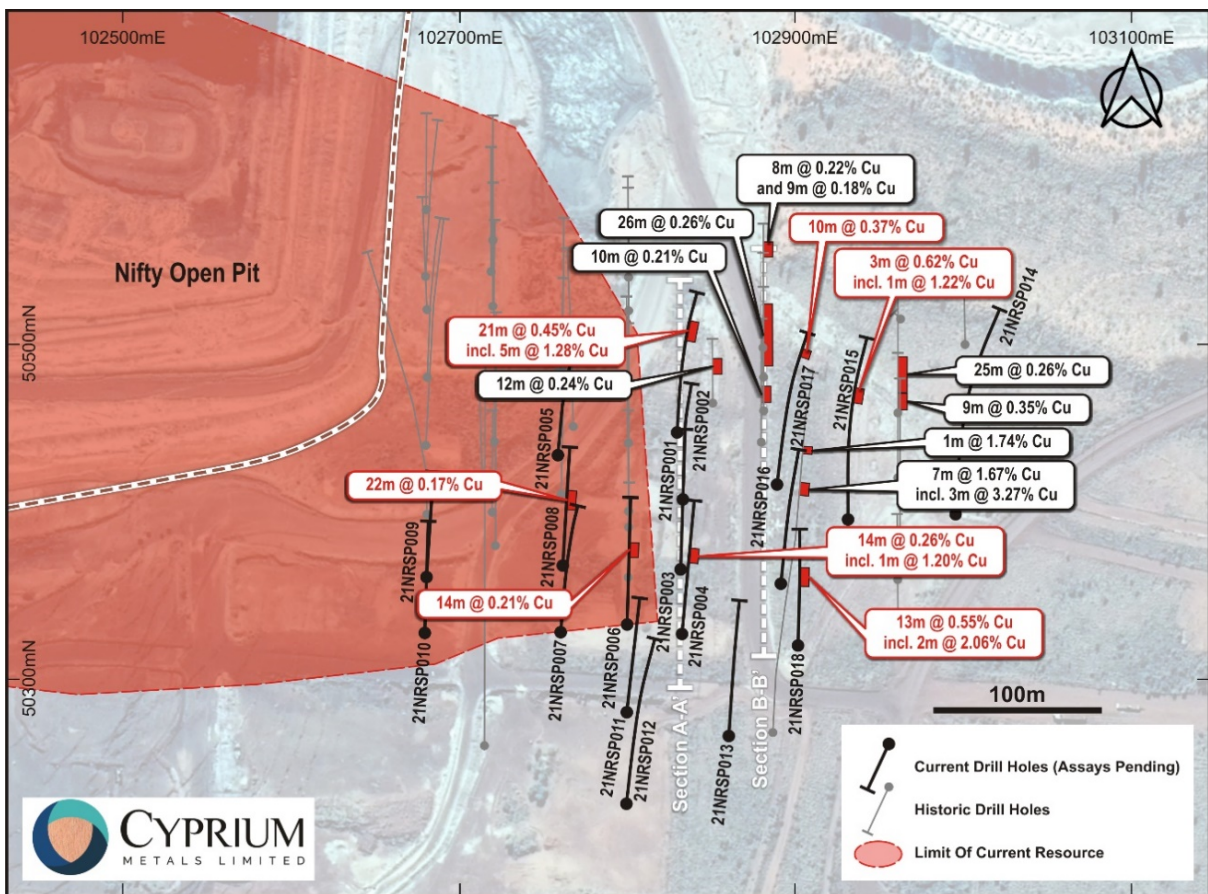


Figure 2 / Nifty East drill hole collar locations and outline of existing resource (red)

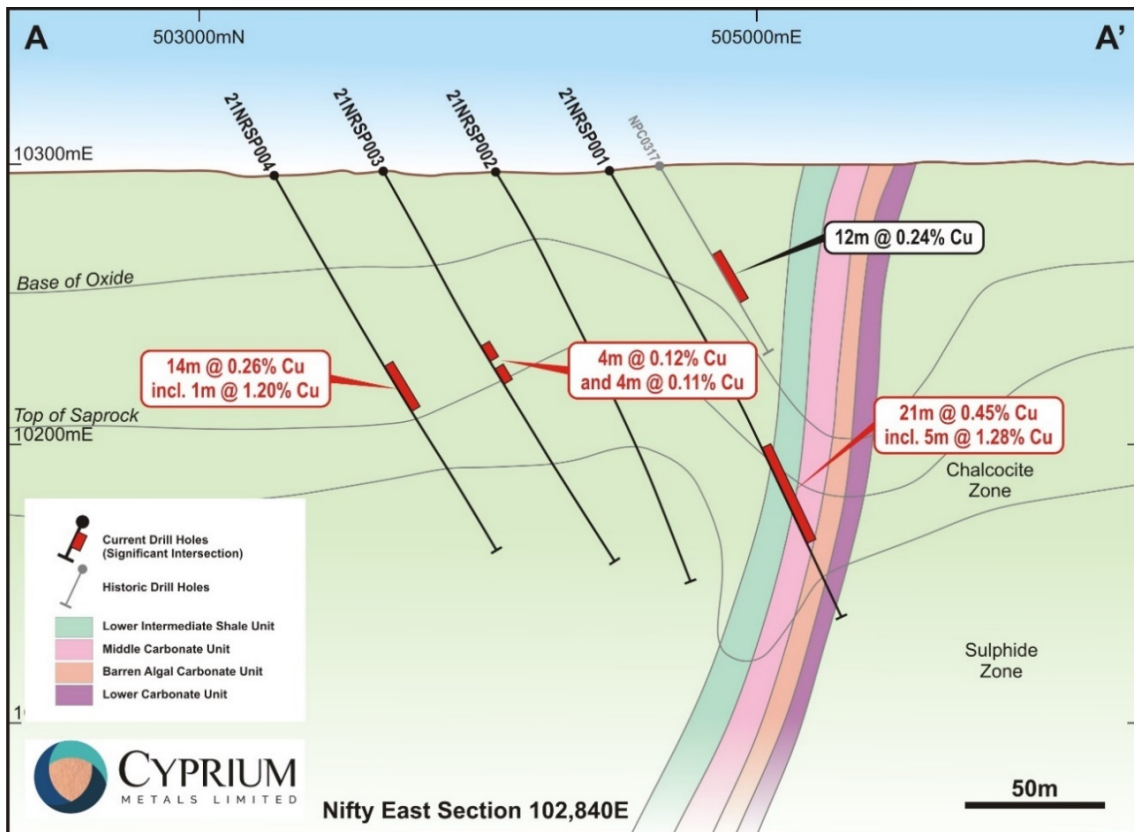


Figure 3 / Nifty East drill hole section 102,840E

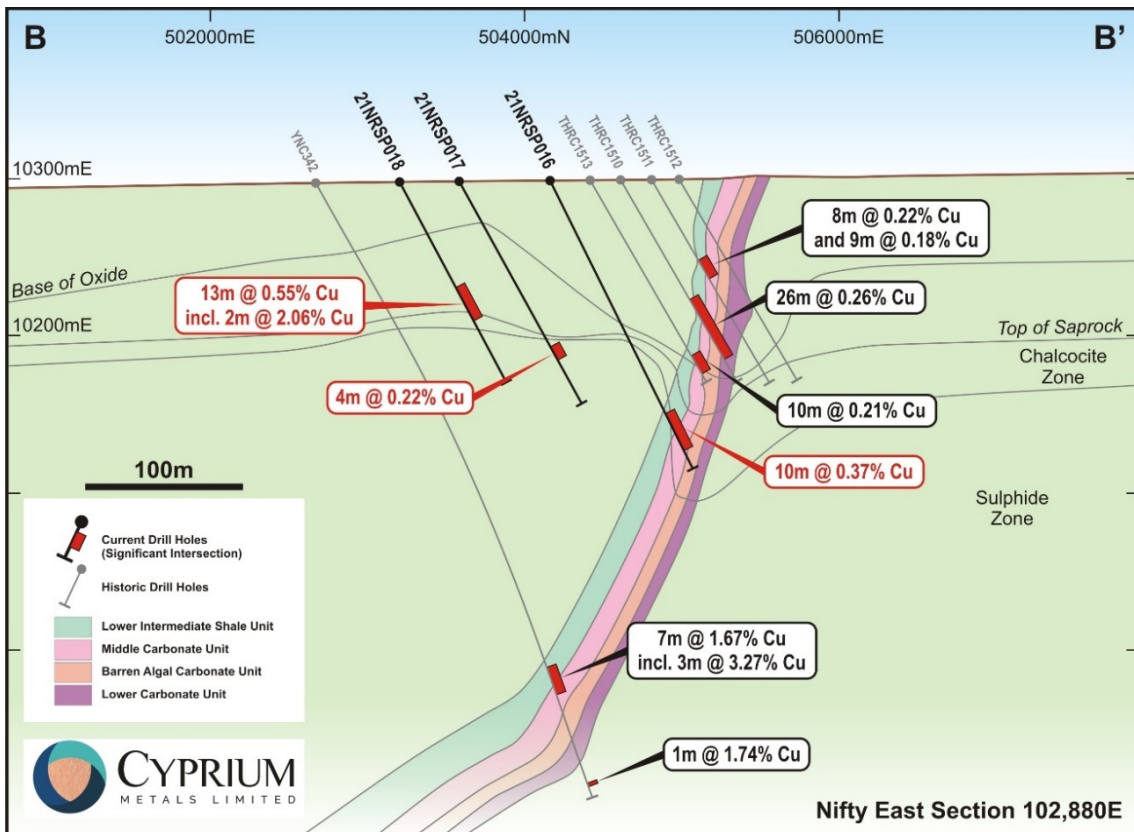


Figure 4 / Nifty East drill hole section 102,880E



Image 2 | Hole 21NDMT001: 141.4m to 141.5m showing native copper and chalcocite



Image 3 | Hole 21NDMT001: 150.3m to 150.5m showing native copper, covellite, chalcopyrite and chalcocite

Metallurgical Review

Multiple work streams are underway to optimise the metallurgical retreat process which utilises a significant amount of historical data and applies modern techniques to a proven process.

The bulk samples taken from the trenching of the existing heap leach pads are currently undergoing column testwork leaching analysis in the laboratory. The preliminary leaching results have been excellent to date, in line with Cyprium's internal expectations.

Optimisation has already commenced on the parameters using Cyprium's Intellectual Property, which have been factored into testwork using a column that is 6 metres high (Image 4), to align with operating parameters. The column testwork of the bulk samples taken from the trenching are continuing and once the analysis is completed, the results will be released to market.

Following the initial testwork on the trenching samples, further optimisation metallurgical testwork will be undertaken on the specialised core samples obtained from a recently completed sonic drill rig programme across the existing heap leach pads.



Image 4 | Nifty 6m high metallurgical testwork column

Other Heap Leach Restart Activities

A detailed solvent extraction electrowinning (“SX-EW”) review has determined that the refurbishment of the existing plant is the preferred course of action. The cost of building a new SX-EW plant is approximately double that of refurbishing and requires a considerably longer timeframe to construct without delivering significant additional operating efficiencies. The refurbishment of the SX-EW plant will require replacement of key components within the EW plant with minimal relocation of the existing site infrastructure.

The SX-EW refurbishment Front End Engineering Design has commenced, with critical long lead items being provided for in the Heap Leach Restart Study. Engineers are conducting detailed refurbishment reviews on site at present with equipment being transported from site for further analysis and commencement of refurbishment activities.

Surveys have been completed for the regulatory approvals process with documentation being compiled for the various submissions. Engagement with the Traditional Owners and Government authorities is also continuing. The site workforce is continuing to be established whilst an extensive upgrade of the existing camp facilities commenced during the quarter at less than 60% of the replacement cost.

Maroochydore Copper Project

The Maroochydore Copper Project hosts a substantial shallow oxide and sulphide Mineral Resource of over 480,000 tonnes of copper. The mineralisation remains open along a strike of over 3km and down-dip, with excellent potential to grow the resource. The Maroochydore deposit is similar to the mineralogy of Nifty as it too is hosted in shales of the Broadhurst Formation.

The first phase of the infill and extensional drilling targeting the oxide/supergene resource is well underway, with half of the proposed 6,000 metre RC drill programme completed. Infill drilling has intersected visible copper mineralisation where modelled, confirming the existing resource model. Several drillholes outside of the modelled mineralisation have highlighted potential extensions to the existing resource. The RC drilling programme will continue at Maroochydore up to the start of the wet season, including a handful of deeper drill holes, testing the sulphide mineralisation at depth.

A 6-hole diamond drilling programme is also underway to obtain samples for the initial metallurgical testwork. The programme is expected to provide representative samples of both the oxide/supergene and sulphide mineralisation. The metallurgical diamond drilling campaign is scheduled to be completed prior to the commencement of the wet season, when the drill rig will return to Nifty.



Image 5 / RC drill rig at Maroochydore Copper Project

Nanadie Well Copper-Gold Project

The layered mafic magmatic hosted disseminated/stringer sulphide mineralisation at Nanadie Well consists of pyrrhotite, pyrite and chalcopyrite as the dominant copper sulphide. It has previously been drilled on a wide-spaced pattern comprising 1 diamond and 88 RC drillholes over a strike length of 750 metres and between 100 to 200 metres wide, to a maximum depth of 234 metres and an average depth of 100 metres, with numerous drill holes ending in mineralisation. Higher grade mineralisation occurs as fractionated layers in the host metagabbros and metanorites, as is normally the case with magmatic copper deposits.

Extensive near-surface oxide and sulphide mineralisation has been identified from the drilling programmes, which is open along strike to the north and south and across strike to the west. The mineralisation does not outcrop and is covered by 1 to 25 metres of transported material. Preliminary investigations of the Nanadie Well deposit data indicates potential for oxide and sulphide mineralisation over the currently identified strike of 750 metres.

Nanadie Well Sulphide Diamond Drilling Programme

The Company's 5 hole (1,328 metre) diamond drilling programme completed during the March 2021 quarter was primarily designed to test the sulphide mineralisation below a depth of 50 metres.

Results from the third diamond hole (NWD2003) were reported in August which returned an impressive intersection of 180m @ 0.6% Cu and 0.2 g/t Au from 10.0m (Images 6 to 9 and Figure 5).

Core from this programme will also be used for preliminary metallurgical testwork on the oxide and sulphide mineralisation.

The results from this deep drilling programme and the Phase 1 RC campaign completed in January 2021 will be used in the preparation of a Mineral Resource estimate for inclusion in the Murchison Copper-Gold Project scoping study.



Image 6 | NWD2003: 56.6m to 57.3m; 0.7m @ 3.12% Cu, 0.33 Au g/t and 6.00 g/t Ag.



Image 7 | NWD2003: 109.2m to 110.05m; 0.7m @ 6.58% Cu, 2.83 Au g/t and 16.5 g/t Ag.



*Image 8 | NWD2003: 155.0m to 156.0m; 1.0m @ 5.11% Cu, 0.40 Au g/t and 8.50 g/t Ag,
156.7m to 157.4m; 1.0m @ 11.0% Cu, 0.82 Au g/t and 18.5 g/t Ag.*

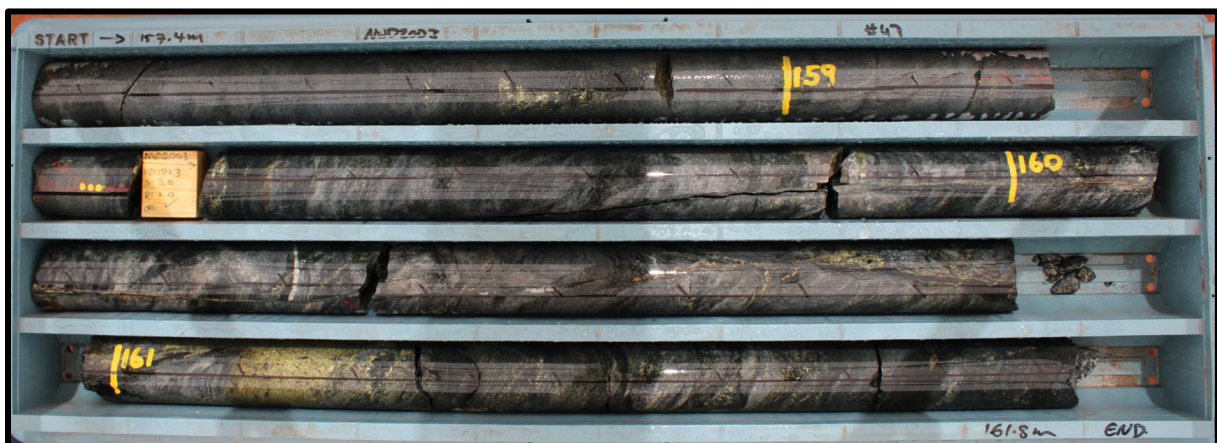


Image 9 | NWD2003: 160.0m to 162.0m; 2.0m @ 2.91% Cu, 0.81 Au g/t and 5.75 g/t Ag.

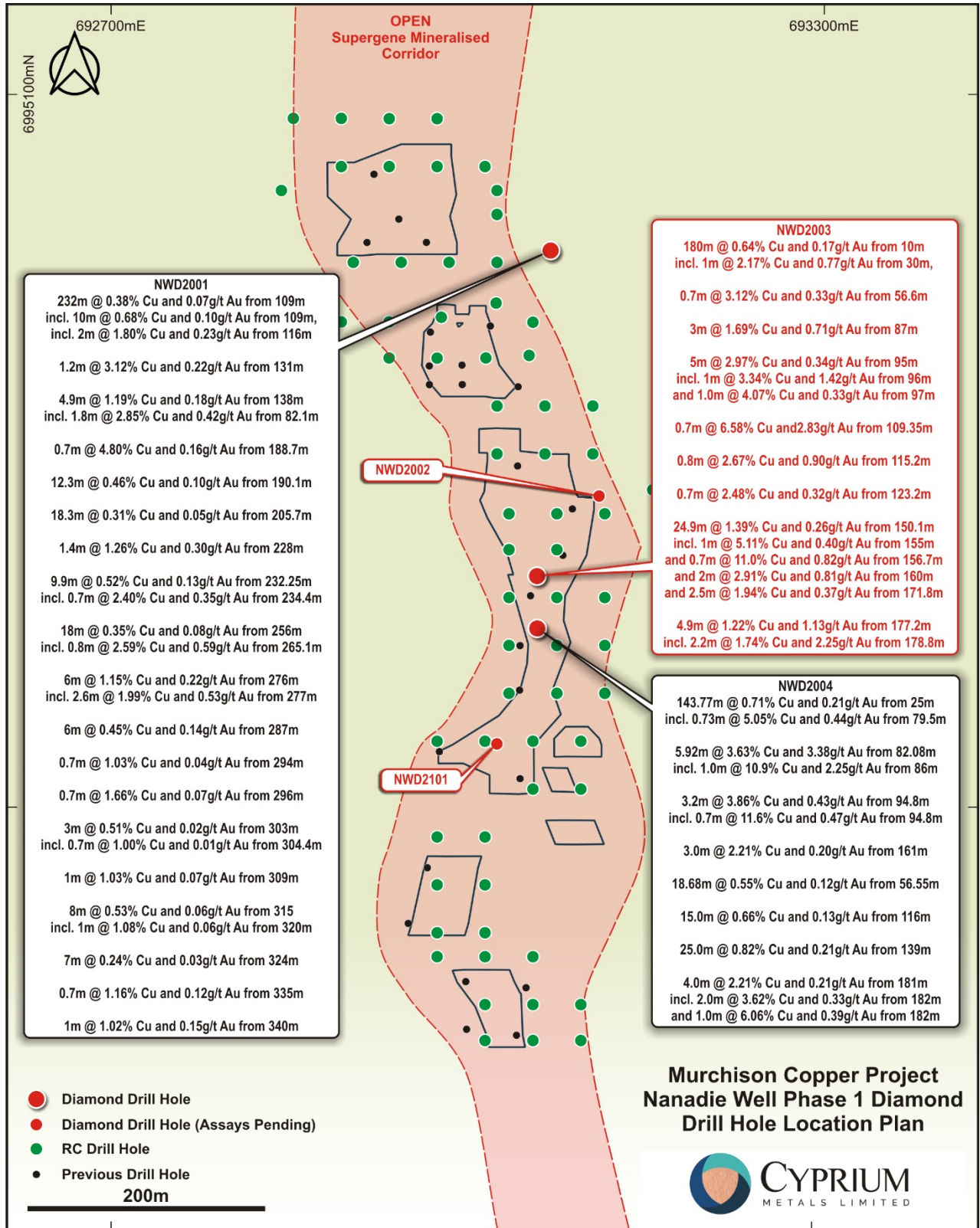


Figure 5 / Nanadie Well Phase 1 drill hole collar locations and diamond drill hole intercept highlights

December 2021 Quarter Plans

- Continuation of the Nifty Heap Leach Restart development plans with an aim of establishing an efficient long-term producing copper mine, including:
 - Continuing the Nifty RC and diamond drilling programmes
 - Ongoing metallurgical testwork and optimisation
 - Update of the Nifty Mineral Resource
 - Continue Front End Engineering and Design work
 - Tender and procurement of long lead items
 - Continue the camp refurbishment
 - Continue the Government approval process for the Heap Leach Restart
 - Complete the Heap Leach Restart Study and continue the Project Finance process
- Complete the Maroochydore drilling programme prior to the commencement of the wet season.
- Review of the Nanadie Well Copper-Gold project diamond drilling assay results and the core for geological interpretation, geophysical logging downhole and metallurgical testwork purposes.

Whilst the completion of some of these milestones will be later than originally estimated, Cyprium has worked to ensure full confidence in the areas of time and cost. There has been a number of pressures on the industry not least of all COVID restrictions, labour shortages and cost increases, particularly around the increased cost of freight for consumables and materials supply. Ultimately, the delays in reporting have enabled a much more robust result for the studies and timelines.



Image 10 | Settler Lid removal at the Solvent Extraction Plant

Capital Structure

The capital structure of the Company Limited is summarised as follows:

Security	Number
Fully Paid Ordinary Shares	
Issued Ordinary Shares	564,819,214
Performance Rights	
Unvested performance rights at a nil exercise price, subject to performance conditions	57,000,000
Share Options	
Unlisted share options exercisable at 31.41 cents each, expiring 30 March 2022	20,274,755
Unlisted share options exercisable at 30 cents each, expiring 11 December 2022	6,000,000
Unlisted share options exercisable at 35.51 cents each, expiring 30 March 2023	20,274,755
Convertible Notes	
Unlisted Convertible Notes at 4% per annum, maturing 30 March 2025	101,373,777

Financial Commentary

The cash flow report (Appendix 5B) for the September 2021 quarter provides an overview of Cyprium's financial activities. Cyprium closed the quarter with cash at bank of \$40.0 million.

The Nifty copper project site incurred \$8.7 million expenditure during the September 2021 quarter, including personnel, RC, diamond and sonic drilling, technical and base line studies, surveys, metallurgical testwork, engineering, camp refurbishment, maintenance and administration activities.

Exploration expenditure for the September 2021 quarter was \$1.1 million, including geological analysis and fieldwork. There was also \$0.6 million of expenditure spent on corporate administrative and personnel costs, including \$30,000 paid for Directors fees (refer to item 6.1 of appendix 5B).

This ASX announcement was approved and authorised by the Board.

For further information:

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Announcements

This Quarterly Activities Report contains information extracted from ASX market announcements reported in accordance with the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (“JORC Code, 2012”). Further details (including JORC Code reporting tables where applicable) of exploration results referred to in this Quarterly Activities Report can be found in the following announcements lodged on the ASX:

- 04 August 2021 Nanadie Well 180m Sulphide Ore Grade Copper Intercept from 10m
<https://wcsecure.weblink.com.au/pdf/CYM/02403444.pdf>
- 13 September 2021 Half Yearly Report and Accounts
<https://wcsecure.weblink.com.au/pdf/CYM/02420489.pdf>
- 14 September 2021 Nifty Copper Project Drilling Update
<https://wcsecure.weblink.com.au/pdf/CYM/02421105.pdf>
- 15 September 2021 Morgans Copper Conference Presentation
<https://wcsecure.weblink.com.au/pdf/CYM/02421571.pdf>
- 20 September 2021 Investor Webinar
<https://wcsecure.weblink.com.au/pdf/CYM/02423290.pdf>
- 21 September 2021 CYM Webinar Presentation
<https://wcsecure.weblink.com.au/pdf/CYM/02424003.pdf>
- 28 September 2021 Nifty East Extensional Drilling Results
<https://wcsecure.weblink.com.au/pdf/CYM/02426917.pdf>
- 19 October 2021 CYM Mines and Money APAC Virtual Presentation
<https://wcsecure.weblink.com.au/pdf/CYM/02437773.pdf>

These announcements are available on the Company’s website, <https://cypriummetals.com/>.

Cyprium confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not materially changed from the original market announcement.

Tenement Information

Tenement	Location	Interest
Cyprium has an 80% joint venture interest in the Cue Copper-Gold project's copper, gold and silver mineralisation however Musgrave Minerals Limited (ASX Code: MGV) has a 100% interest in primary gold deposits that are not associated with copper-gold deposits, for the following tenements at the Cue Copper Project, WA: M20/0225, M20/0245, M20/0277, M20/526, E20/0606, E20/0608, E20/0616, E20/0629, E20/0630, E20/0659, E20/0698, E20/0700, E20/0836 and P20/2279	Murchison region, WA	80%
Cyprium has a 100% interest in the Nanadie Well Copper-Gold Project, WA, which comprises the following tenements: M51/887, E51/1040, E51/1986 and E51/1987	Murchison region, WA	100%
Cyprium has a 100% interest in the Paterson Copper Project (Nifty Copper Mine and Maroochydore Copper Project), WA, which comprises the following tenements: E45/1018, E45/1840, E45/1841, E45/3011, E45/4318, M45/314, M45/315, M45/317, M45/318, M45/492, P45/2924, P45/2925, P45/2926, P45/2927, P45/3055, L45/102, L45/128, L45/143, L45/148, L45/74, L45/91, M271SA, E45/4319, E45/5705, M45/711, M45/712, M45/713, M45/745, M45/746, P45/3150, P45/3151, E45/3003, M45/752, M45/753 and M45/754	Paterson Province, WA	100%
Cyprium has a 100% interest in the Paterson Exploration Project, WA (IGO earning up to 70%), which comprises the following tenements: E45/1839, E45/2280, E45/2415, E45/2771, E45/2772, E45/2773, P45/2792, P45/2793, P45/2794, P45/2801, P45/2802, P45/2803, P45/2804, P45/2805, P45/2806, P45/2807, P45/2808, E45/3573, E45/3574, E45/3575, E45/3576, E45/3577, E45/4151, E45/4205, E45/4234, E45/4862, E45/5199, E45/5300, M45/1109, M45/1110, M45/1111, M45/1112, M45/1113, M45/1114	Paterson Province, WA	100%

Changes during the September 2021 Quarter:

There were no changes during the quarter.

Competent Person

The information in this report that relates to Exploration Targets, Exploration Results and the estimation and reporting of the Hollandaire Mineral Resource Estimate is an accurate representation of the available data and is based on information compiled by external consultants and Mr. Peter van Luyt who is a member of the Australian Institute of Geoscientists (2582). Mr. van Luyt is the Chief Geologist of Cyprium Metals Limited, in which he is also a shareholder. Mr. van Luyt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person (CP). Mr. van Luyt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Nifty and Maroochydore Mineral Resources is based on information compiled by Mr Terry Burns BAppSc (Geology) GDipEd PDGeosci (Mineral Economics) GDipEng (Mining), a Competent Person who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Burns is an independent consultant to Cyprium Metals Limited and is a director of Warbrooke-Burns & Associates Pty Ltd which is the entity providing services to Cyprium Metals Limited. Warbrooke-Burns & Associates Pty Ltd is retained by Cyprium Metals Limited under industry standard commercial consulting rates. Mr Burns 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 Burns consents to the inclusion in the report of the matters based on his compilation and in the form and context in which it appears.



About Cyprium Metals Limited

Cyprium Metals Limited (ASX: CYM) is an ASX listed company with copper projects in Australia. The Company has a highly credentialed management team that is experienced in successfully developing heap leach copper projects in challenging locations. The Company's strategy is to acquire, develop and operate mineral resource projects in Australia which are optimised by innovative processing solutions to produce copper metal on-site to maximise value.

The Company has projects in the Murchison and Paterson regions of Western Australia, that is host to a number of base metals deposits with copper and gold mineralisation.

Paterson Copper Projects

This portfolio of copper projects comprises the Nifty Copper Mine, Maroochydore Copper Project and Paterson Exploration Project.

The Nifty Copper Mine ("Nifty") is located on the western edge of the Great Sandy Desert in the north-eastern Pilbara region of Western Australia, approximately 350 km southeast of Port Hedland. Nifty contains a 2012 JORC Mineral Resources of 658,500 tonnes of contained copper. Cyprium is focussed on a heap leach SX-EW operation to retreat the current heap leach pads as well as open pit oxide and transitional material. Studies will investigate the potential restart of the copper concentrator to treat open pit sulphide material.

The Maroochydore deposit is located ~85km southeast of Nifty and includes a shallow 2012 JORC Mineral Resources of 486,000 tonnes of contained copper.

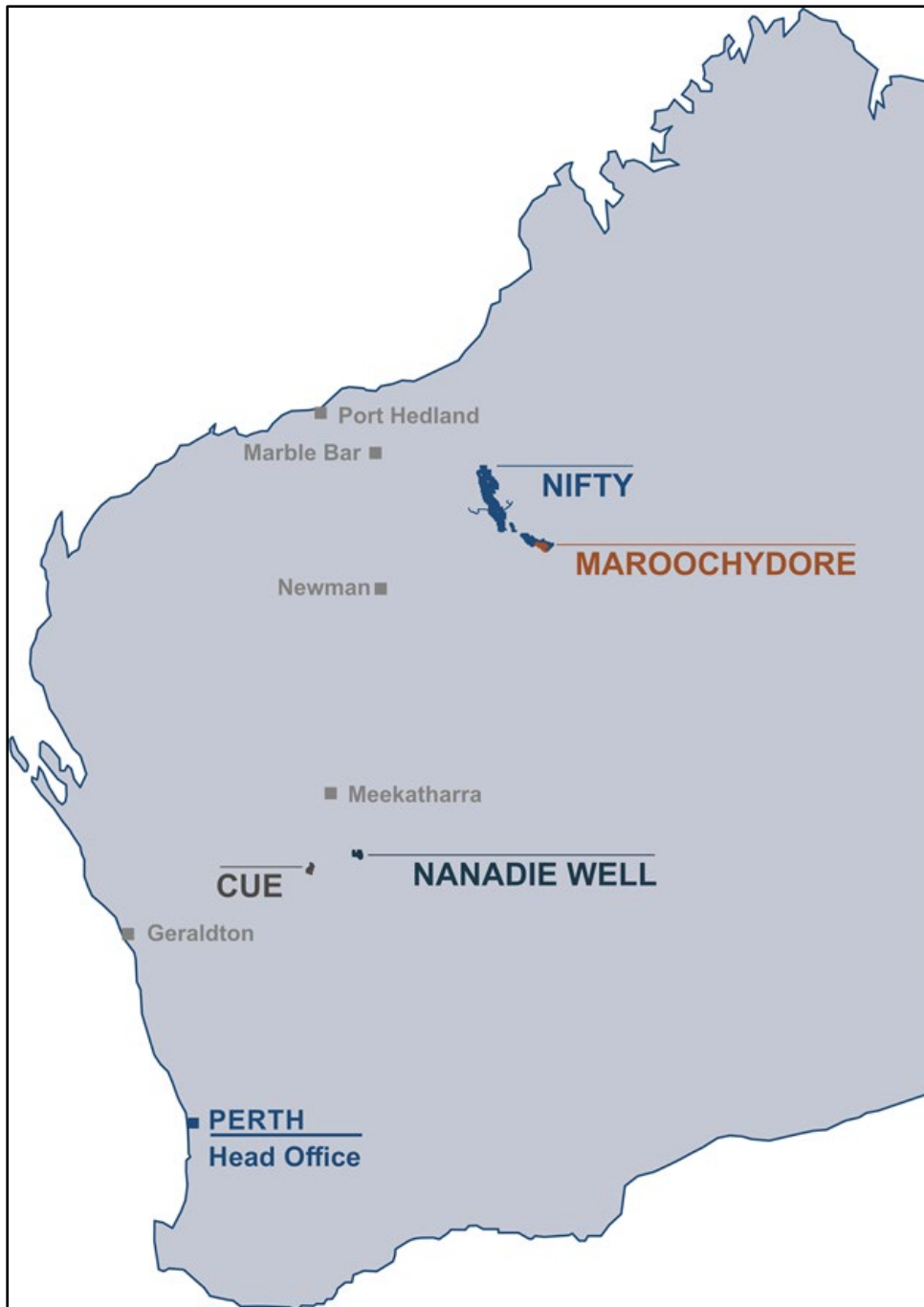
An exploration earn-in joint venture has been entered into with IGO on ~2,400km² of the Paterson Exploration Project. Under the agreement, IGO is to sole fund A\$32 million of exploration activities over 6.5 years to earn a 70% interest in the Paterson Exploration Project, including a minimum expenditure of A\$11 million over the first 3.5 years. Upon earning a 70% interest, the Joint Venture will form and IGO will free-carry Paterson Copper to the completion of a Pre-feasibility Study (PFS) on a new mineral discovery.

Murchison Copper-Gold Projects

Cyprium has an 80% attributable interest in a joint venture with Musgrave Minerals Limited (ASX: MGX) at the Cue Copper-Gold Project, which is located ~20km to the east of Cue in Western Australia. Cyprium will free-carry the Cue Copper Project to the completion of a definitive feasibility Study (DFS). The Cue Copper-Gold Project includes the Hollandaire Copper-Gold 2012 JORC compliant Mineral Resources of 51,500 tonnes contained copper, which is open at depth. Metallurgical testwork has been undertaken to determine the optimal copper extraction methodology, which resulted in rapid leaching times (refer to 9 March 2020 CYM announcement, "Copper Metal Plated", <https://cypriummetals.com/copper-metal-plated/>).

The Nanadie Well Project is located ~650km northeast of Perth and ~75 km southeast of Meekatharra in the Murchison District of Western Australia, within mining lease M51/887.

The Cue and Nanadie Well Copper-Gold projects are included in an ongoing scoping study, to determine the parameters required to develop a copper project in the region, which provides direction for resource expansion work.



Cyprium Metals project locations