

31 July 2019

HIGHLIGHTS

Woodlawn Zinc-Copper Project Development Progress

June 2019

PLANT CONSTRUCTION

- EPC Contractor nearing completion of commissioning (98% at end June)
- Ore processing commenced on 6 May on reclaimed tailing 91.4kt processed with average grades of 2.39% zinc, 0.44% copper and 1.22% lead
- First concentrate load-out from site occurred on 4 July
- The process plant ramp-up continues with a steady increase in metallurgical recovery, concentrate tonnage and quality
- Crushing and ball mill circuit for underground feed to be commissioned in Q3 2019

UNDERGROUND

- 2.3km of underground development completed on schedule increasing mining flexibility
- First stoping ore planned for Q3 2019
- Paste plant commissioning underway

RETREATMENT

- Hydraulic mining production performing well
- A total of 137kt tailings reclaimed during the quarter

Woodlawn Exploration

- Drilling (2,112m in 4 holes) Induced Polarisation (IP) anomalies north of Woodlawn intersected zones of strong mineralisation-associated alteration in two of the holes
- New exploration licence (ELA 5811) applied for covering the Mayfield mining area located 20km southeast of Woodlawn Mine where historical drilling returned a number of shallow high-grade base metal and gold intercepts

Corporate

- Cash: Heron held A\$39.4 million in cash (including bonds of A\$7.88 million) and A\$1.3 million in investments as at 30 June 2019. The Company continues to closely manage its cash position noting that the late delivery of the processing facility has resulted in the Company incurring additional holding costs over an approximate 7 month period. The Company is updating the production ramp-up based on recent performance and forward expenditure projections to determine the extent to which additional funding may be required.
- **Sedgman Claim:** The status of the disputed Sedgman claim has not changed in the last quarter. There are no material changes or updates; discussions between the two parties are ongoing.



Heron Resources Ltd ("Heron" or the "Company") is pleased to provide its report for the June 2019 Quarter. During this reporting period, the Company continued its focus on construction and commenced commissioning at its Woodlawn Zinc-Copper Project.

WOODLAWN ZINC-COPPER PROJECT

Heron holds a direct 100% ownership of the mineral rights at the Woodlawn Mine site situated 40km south of Goulburn and 250km south-west of Sydney, in southern NSW, Australia (Figure 1). It is Heron's aim to create a profitable, long-life, low-cost mining operation, producing base metal concentrates.

Heron also holds a portfolio of advanced stage exploration tenements adjacent to, and contiguous with, the Woodlawn site covering the prospective felsic volcanic units that host the Volcanogenic Massive Sulphide (VMS) deposit at Woodlawn.

The last four years have seen Heron directing its efforts to developing the Woodlawn Zinc-Copper Project with the successful completion of a Preliminary Economic Assessment (PEA) in 2015, followed by the Feasibility Study (FS) in June 2016 and the completion of project financing in September 2017. Construction activities commenced in September 2017. The Project achieved first production in the June quarter.



Figure 1 Woodlawn Project location and tenement map.

June 2019

Woodlawn Project - Development Progress

Construction activities commenced in September 2017 and are now complete. Remaining development activities are crusher, ball mill and paste plant commissioning and plant performance run-up and testing. The plant is operational and the processing of reclaimed tailing commenced early in May. The first transport of concentrate from site commenced in early July. Recent project developments include:

- **Safety:** Regrettably, Heron incurred one lost time injury in the June quarter. The Company remains committed to achieving zero harm and continues to be focused on the improvement of its risk management systems and processes targeting the wellbeing of its employees and contractors as operational activities are bedded down.
- **Project EPC Works:** The process plant received first feed from reclaimed tailing on 6 May. As commissioning advances, the EPC contractor has continued to repair or replace equipment defects in accordance with the defects provisions of the Contract. The remaining EPC activities to complete are crusher, ball mill and paste plant commissioning before plant performance testing commences (plant throughput and metallurgical performance). The EPC Contractor reported project commissioning as at the end of June at 98%.
- Processing: A total of 91.4kt of reclaimed tailing was processed during the quarter (121tph and 52% uptime) with grades in line with Ore Reserves (2.39% zinc, 0.44% copper and 1.22% lead). Initial production has been hampered by a number of minor mechanical issues as the process plant circuit is being operated for the first time. There has been progressive resolution of these issues improving plant performance. Also, subsequent to the end of the quarter, Heron discovered some piping errors in the plant which have been corrected and production information is now showing further improved flotation performance in-line with expectations. Processing of underground ore will commence in Q3 2019 as the crushing circuit commissioning is undertaken. Metallurgical recoveries and concentrate grades from these first two production months were below target; however performance is progressively improving.
- **Concentrate Production:** Zinc concentrate load-out from site commenced on 4 July (Figure 4). To date, 1,100wmt of concentrate has been moved off site. Additional concentrate (approx. 750wmt) is awaiting movement from site. The first train load to port is expected within days. The average zinc concentrate grade transported is slightly below target (41% compared to +45% target) and will be blended at port prior to shipping.
- Underground Mine: The underground operation has made steady progress with 2.3km of development completed by the end of the quarter. Development advance rates for the quarter were above schedule rates (actual 1,091m versus budget 755m); ore encountered during development has been stockpiled on the ROM pad ready for processing. To-date, 31,200t of combined low grade commissioning material and high grade ore are ready for the first crushing campaign. The strip and line section of the primary ventilation raise was well advanced by the end of the quarter (Figure 5). Importantly, the mining and installation of the first leg of the second means of egress (small diameter raise) is complete.
- **Hydraulic Mining:** Hydraulic mining progressed through the quarter with completion of the main delivery trench in Tailings Dam South (Figure 6). Mining is now occurring in the main production area after having removed low grade slimes at the toe of the dam. A second high pressure water cannon arrived on site during May. Production rates from reclaim are in-line with design and had been constrained by the process plant. A total of 137kt was reclaimed during the quarter (including low grade material not processed).
- **Community:** The Company welcomes opportunities to connect and support the Community. During the June quarter, Heron proudly partnered with the Tarago Pre-school to assist with the purchase and installation of new playground equipment. Heron continues to receive supportive local feedback for the project and the wider benefits the Company provides the local community.



Figure 2 Production of concentrates commenced during the quarter (zinc concentrate pictured above), with the focus now turning to increasing throughput to achieve nameplate capacity, design recoveries and product specifications.



Figure 3 IsaMill[™] undergoing internal inspection.





Figure 4 First containers of concentrate left site 4 July.



Figure 5 Woodlawn primary ventilation shaft.



Figure 6 Hydraulic mining progressed through the quarter with completion of the main delivery trench in Tailings Dam South.

Woodlawn Project – Exploration

Heron's exploration is currently focused on the discovery and delineation of additional mineralised VMS lenses north of Woodlawn. Prospects targeted are within a 2.5km arc to the NW and NE of the Woodlawn Mine.

Induced Polarisation Anomalies

An Induced Polarisation (IP) geophysical program was completed during the quarter north of the Woodlawn Mine with a number of significant anomalies being returned (refer Heron ASX release dated 7 May 2019), see Figure 7. IP lines were spaced 200m and 400m apart and extended 4km in an east-west direction. The survey was focused along the 2.5km arc to the NW and NE of the Woodlawn Mine and includes the Murphy's to Cowley Hills trend. A drilling program followed on from the IP survey and targeted the high priority chargeability and conductivity anomalies.





Figure 7 Schematic plan view of Woodlawn North IP survey, showing 2D slices of 3D chargeability inversion model and key drill targets. The Woodlawn open pit and VMS lenses are shown to scale; and position relative to the plant site.

Drilling Program

A diamond core drilling (DDH) program was completed in mid-July to test these three targets. A total of 2,112m were drilled in four holes, described below. Further technical details of the drilling, including a JORC Table 1, are provided in Appendix A at the end of this report.

Murphy's Target

The Murphy's IP target, located 900m NNE of the Woodlawn pit, returned a broad chargeability and conductivity anomaly which were constrained via 3D inversion modelling; DDH positioning was also guided further from re-logging of nearby historic drill core. DDH CHDD0002 was drilled into the Murphy's target and stopped (total depth 525.7m) in a thick sequence of weakly- to moderately-altered limestones and felsic volcanics of the De Drack Formation. The IP anomaly (conductivity and chargeability) appears to be explained by a graphitic and sulfidic black shale intersected over 7.4m from 303.8m depth. The hole was continued to its final depth to cover off a potentially deeper target.

Bucklands North Target

The Bucklands IP target is located 1.8km north of the Woodlawn pit and returned a broad, deep chargeability anomaly. Previous drilling to the NE here had intersected weak base metal mineralisation in 3 holes. DDH CHDD003 (final depth 700m), was drilled into the Buckland's North prospect and intersected a distinct zone of pyrite-pyrrhotite alteration and quartz veining from 514m to 580m, with a stronger zone between 564m to 569m intercepted. Elevated copper levels were also returned (measured by handheld XRF) and this zone corresponds with the IP anomaly; assays for the alteration zone are pending. The alteration and veining intersected indicate a potential "near miss" of a mineralised zone and DHEM and further drilling may be undertaken.





Figure 8 Bucklands North target, cross section looking north showing chargeability anomaly and drill hole testing the anomalous zone.

Bucklands Target

The Bucklands IP target is located 450m NW of the Woodlawn Pit and returned both a chargeability and conductivity anomaly offset from each other by about 100m (see Figure 9). Both anomalies were in an area of little previous drilling to the depth of the anomalies (200-350m below surface).

The first DDH here (WNDD0152, drilled 580m) tested the deeper chargeability anomaly and intersected a zone of weakly sulphidic shales of the De Drack Formation which may be the cause of the chargeability anomaly. Down hole EM (DHEM) surveys will be completed on this hole as it provides an important stratigraphic test of the Woodlawn footwall sequence where massive sulphides may have been remobilised into during regional deformation.

The second DDH here (WNDD0153, drilled to 307m), and located 50m west of WNDD0151, tested the conductivity anomaly and intersected a strong to intensely atered zone of typical Woodlawn silica, sulphide, sericite development from 5m to 31m depth. Minor sphalerite stringers (<1cm thick) returned up to 15% zinc with the hand-held XRF confirming the base-metal enrichment of the zone. The hole was continued to its final depth to fully test the zone. Surface infrastructure is likely to have influenced the interpreted positioning of the modelled IP anomaly, which may be related to this zone of alteration/mineralisation to the west and can be better positioned now with DHEM methods.



Figure 9 Bucklands target, cross section looking north showing chargeability and conductivity anomaly and drill holes testing the anomalous zone. The shale/dolomite beds with disseminated sulphides to the east explain the chargeability anomaly. The target zone to the west is a high priority target. Both recent holes will be surveyed with DHEM.



MAYFIELD (ELA 5811, 100% HRR)

An Exploration Licence Application has been placed over the Mayfield mining area located 20km southeast of the Woodlawn Mine. ELA 5811 contains a number of interesting mineral occurrences including the Limekilns prospect with notable historically reported drill intercepts of:

- 2m @ 5.3% Zn. 1.8% Pb, 80g/t Ag from 48.5m (DDH1)
- 1.6m @ 3.5% Zn, 6.5% Pb, 67g/t Ag from 53.5m (DDH2)
- 2m @ 7.3% Zn, 3.2% Pb, 270g/t Ag from 75m (DDH4)
- 2m @ 4.5% Zn, 6.0% Pb, 65g/t Ag from 31.1m (LRD1)

The zone was estimated (in 1975) to have a strike of at least 150m, average width of 2m and average grades of 5.1% Zn, 4.4% Pb , 120g/t Ag. This is within a broader zone of lower grade sulphide. The mineralisation is skarn related near the Silurian and Ordovician contact.



Figure 10 Mayfield Project Map of ELA 5811 showing key prospects.



CORPORATE

Cash: Heron held A\$39.4 million in cash (including bonds of A\$7.88 million) and A\$1.3 million in investments as at 30 June 2019. The Company continues to closely manage its cash position noting that the late delivery of the processing facility has resulted in the Company incurring additional holding costs over an approximate 7 month period. The Company is updating the production ramp-up based on recent performance and forward expenditure projections to determine the extent to which additional funding may be required.

Sedgman Claim: The status of the disputed Sedgman claim has not changed in the last quarter. There are no material changes or updates. Discussions between the two parties are ongoing.

Office Relocation: Heron's Sydney office relocated during the quarter to Suite 2, Level 8, 309 Kent Street, Sydney NSW 2000. Contact numbers remain unchanged.



APPENDIX A – REGIONAL EXPLORATION PROJECTS

WOODLAWN REGIONAL PROSPECTS

Heron continues to maintain and explore its strategic 1,372km² tenement package which covers the prospective Silurian volcanic rocks which host the Woodlawn VMS deposit. Heron's exploration strategy is to focus on historically known mineralisation zones with prospective geology and comparable grade and metallurgy to Woodlawn, and within potential trucking distance of the Woodlawn processing facility. Figure 11 shows the location of key projects.



Figure 11 Heron's Woodlawn Regional Projects

EXPLORATION JOINT VENTURE PROJECTS

Heron retains interests in tenement holdings within the Lachlan Fold Belt of NSW and the Eastern Goldfields of Western Australia (Figure 12). This tenure is held through farm-in and joint venture interests which include a number of other freecarried residual or royalty interests which results in minimal costs to Heron.





Figure 12 Heron NSW Projects (including Alchemy JV tenure).

Alchemy Farm-In and JV (Overflow, Girilambone, Eurow and Yellow Mountain)

Heron entered into a Farm-In Agreement with Alchemy Resources Limited (Alchemy) (ASX: ALY) covering a portfolio of Heron's NSW exploration tenements in May 2016. The Farm-In Agreement covers 674 km² of the central Lachlan Orogen in NSW (refer Figure 13). At the end of the previous quarter Alchemy had earnt a 51% interest in the JV tenements after spending \$1 million and have the option to earn 80% by spending an additional \$1 million over the next 2 years.

During the quarter Alchemy announced a maiden Mineral Resource Estimate at the Summervale Ni-Co-Al Project near Nyngan (refer ASX: ALY, 19 Jun 2019). The alumina resource was defined from a 3-phase drilling campaign that was completed in 2018 and comprised 178 holes for 8,646m. The alumina mineralisation is flat lying and hosted in a kaolinite zone that is situated approximately 15m to 25m below the surface and is approximately 2m to 40m in thickness. This resource is in addition to the underlying Ni-Co mineralised zone at Summervale. Initial metallurgical testing has commenced at West Lynn, see (ASX: ALY, 29 Apr 2019).

June 2019

Compliance Statements (JORC 2012)

The technical information in this report relating to the exploration results is based on information compiled by Mr. David von Perger, who is a Member of the Australian Institute of Mining and Metallurgy (Chartered Professional – Geology). Mr. von Perger is a full time employee of Heron Resources Limited and 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 as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results. Mr. von Perger has reviewed this report and approves the scientific and technical disclosure related to exploration results within.

Zinc equivalent calculation

The zinc equivalent ZnEq calculation takes into account, mining costs, milling costs, recoveries, payability (including transport and refining charges) and metal prices in generating a Zinc equivalent value for Au, Ag, Cu, Pb and Zn. ZnEq = Zn%+Cu%*3.12+Pb%*0.81+*Au g/t*0.86+Ag g/t*0.03. Metal prices used in the calculation are: Zn US\$2,300/t, Pb US\$ 2,050/t, Cu US\$6,600/t, Au US\$1,250/oz. and Ag US\$18/oz. These metal prices are based on Heron's long-term view on average metal prices. It is Heron's view that all the metals within this formula are expected to be recovered and sold. Metallurgical metal recoveries used for the formula are: 88% Zn, 70% Pb, 70% Cu, 33% Au and 82% Ag; these are based on historical recoveries at Woodlawn and supported by metallurgical test work undertaken during the 2015-16 feasibility study.



Corporate Directory

Issued Share	Capital			Registered Office and Address for
As at the date of this report, Heron Resources Limited had 241,666,912 ordinary shares, 1,915,000 Employee options and 4,916,667 Performance Rights. The options have expiry dates ranging from 4^{TH} December 2020 to 1 February 2022 and have exercise prices ranging from A\$0.72 to A\$1.10.				Correspondence Sydney Suite 2, Level 8, 309 Kent Street Sydney NSW 2000 Telephone +61 2 9119 8111 Email heron@heronresources.com.au Website www.heronresources.com.au
The Performa price options a 1 July 2021.	ance rigi and expi	nts are \$i re on 1 Ju	nil exercise ly 2020 and	Share Registry (Australia)
Heron trades	on the A	SX as HRI	R.	Automic
Monthly Sha	re Price	Activity		Level 5,126 Philip Street Sydney NSW 2000
(As	\$ per sh	are - ASX)	P: 1300 288 664 (within Australia)
Month Jul 18 Aug 18 Sept 18 Oct 18 Dec 18 Jan 19 Feb 19 Mar 19 May 19 June 19	High 0.65 0.62 0.67 0.65 0.61 0.66 0.60 0.685 0.66 0.64 0.61	Low 0.54 0.56 0.53 0.56 0.59 0.56 0.505 0.55 0.60 0.54 0.535	0.61 0.58 0.66 0.56 0.60 0.56 0.63 0.57 0.64 0.61 0.61 0.575	 P: +61 (2) 9698 5414 (outside Australia) E: hello@automic.com.au W: www.automic.com.au All security holder correspondence to: PO BOX 2226, Strawberry Hills, NSW 2012 Please direct enquiries regarding Australian shareholdings to the Share Registrar.
	Issued Share As at the Resources ordinary sha options and 4 The options and 4 The options at A TH December have exercise A\$1.10. The Performa price options at 1 July 2021. Heron trades Monthly Share (A Month Jul 18 Aug 18 Sept 18 Oct 18 Nov 18 Dec 18 Jan 19 Feb 19 Mar 19 Apr 19 May 19 June 19	Issued Share Capital As at the date of Resources Limited ordinary shares, 1 options and 4,916,667 The options have expid 4 TH December 2020 to have exercise prices radius A\$1.10. The Performance rigil price options and expiding 1 July 2021. Heron trades on the A Monthly Share Price (A\$ per sh Month Jul 18 0.65 Aug 18 0.62 Sept 18 0.67 Oct 18 0.67 Nov 18 0.65 Dec 18 0.61 Jan 19 0.66 Feb 19 0.60 Mar 19 0.64 June 19 0.61	Issued Share Capital As at the date of this rep Resources Limited had 2 ordinary shares, 1,915,000 options and 4,916,667 Performa The options have expiry dates ra 4 TH December 2020 to 1 Februa have exercise prices ranging from A\$1.10. The Performance rights are \$ price options and expire on 1 Ju 1 July 2021. Heron trades on the ASX as HRI Monthly Share Price Activity (A\$ per share - ASX Month High Low Jul 18 0.65 Jul 18 0.62 Oct 18 0.67 Nov 18 0.65 Nov 18 0.65 Jan 19 0.66 June 19 0.61 June 19 0.61	Issued Share Capital As at the date of this report, Heron Resources Limited had 241,666,912 ordinary shares, 1,915,000 Employee options and 4,916,667 Performance Rights. The options have expiry dates ranging from 4^{TH} December 2020 to 1 February 2022 and have exercise prices ranging from A\$0.72 to A\$1.10. The Performance rights are \$nil exercise price options and expire on 1 July 2020 and 1 July 2021. Heron trades on the ASX as HRR. Month High Low Close Jul 18 0.65 0.54 0.61 Aug 18 0.62 0.56 0.58 Sept 18 0.67 0.53 0.66 Oct 18 0.67 0.56 0.56 Nov 18 0.65 0.59 0.60 Dec 18 0.61 0.56 0.57 Mar 19 0.66 0.50 0.57 Mar 19 0.66 0.60 0.61 May 19 0.64 0.54 0.61 June 19 0.61 0.535 0.575



Appendix 5B

MINING EXPLORATION ENTITY QUARTERLY REPORT

Name of entity

HERON RESOURCES LIMITED

ABN

30 068 263 098

Quarter ended

30 June 2019

Consolidated statement of cash flows

Cash flows related to operating activities	Current Qtr. \$A'000	Year to Date (12 months) \$A'000
 1.1 Receipts from product sales and related debtors 1.2 Payments for: (a) production (b) development 		
(c) administration	(1,568)	(8,899)
 Dividends received Interest and other items of similar nature received Interest and other sects of finance paid 	352	1,033
 1.6 Taxes (paid)/refunded (R&D/GST) 1.7 Other –GST 	3,845 -	10,470 -
Net Operating Cash Flows	2,629	2,604
Cash flows related to investing activities		
 1.8 Payment for purchases of: (a) plant and equipment (b) equity investment (c) mine under construction (d) exploration activities (e) prospects 	(114) - (29,232) (438) -	(787) - (89,004) (1,422) -
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investment (c) other fixed assets 1.10 Loans to other entities		-
1.11 Loans repaid by other entities	-	-
Net Investing Cash Flows	(29,784)	(91,213)
1.12 Total operating and investing cash flows (carried forward)	(27,155)	(88,609)

June 2019

1.12 Total operating and investing cash flows (brought forward)	(27,155)	(88,609)
Cash flows related to financing activities 1.13 Proceeds from the issue of shares, options, etc. 1.14 Realised foreign exchange loss – equity raise 1.15 Payment for FX Hedges 1.16 Proceeds/(repayment) of borrowings 1.17 Dividends paid 1.18 Payment of Share issue costs	- - - - -	- (12) 53,639 -
Net financing cash flows	-	53,627
Net increase (decrease) in cash held	(27,155)	(34,982)
1.19 Cash at beginning of quarter/year 1.20 Other (Fx translation)	66,526 -	74,309 44
1.21 Cash at end of quarter	39,371	39,371

Payments to directors of the entity and associates of the directors, payments to related entities of the entity and associates of the related entities

	Current Qtr. \$A'000
1.22 Aggregate amount of payments to the parties included in item 1.2 and 1.8	140
1.23 Aggregate amount of loans to the parties included in item 1.10	-

1.24 Explanation necessary for an understanding of the transactions

Director's fees, salaries and superannuation for the quarter (A\$140,363).

Non-cash financing and investing activities

2.1 Details of financing and investing transactions that have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

See attached schedule



Financing facilities available

Add notes as necessary for an understanding of the position

		Amount available \$A'000 (US\$76M at exchange rate of AUD:USD\$0.7058)	Amount used \$A'000
3.1	Loan facilities	\$107,679	\$107,679
3.2	Credit standby arrangements		

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	250
4.2 Development	6,100
4.3 Production #	16,950
4.4 Administration	700
Total	24,000

- Represents estimated cash outflows associated with the production and sale of zinc, copper and lead concentrate during the next quarter at Woodlawn. Forecasted cash inflows from the sale of concentrate are excluded from the table above.

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to related items in the accounts as follows.	Current Quarter \$A'000	Previous Quarter \$A'000	
5.1 Cash on hand and at bank	1,493	2,749	
5.2 Deposits at call	30,000	56,000	
5.3 Bank Overdraft			
5.4 Other (provide details)			
Environmental bonds	3,577	3,577	
Bank Guarantee	4,301	4,200	
Total: cash at end of quarter (Item 1.21)	39,371	66,526	



6.1 Interests in Mining Tenements transferred, relinquished, withdrawn, reduced or lapsed.

Interests in Mining Tenements sold, reduced or relinquished

Tenen	nent	Location	Nature of Interest	% Beginning of Quarter	% At end of Quarter
Nil					

Interests in Mining Tenements acquired or increased

Tenement	Location	Nature of Interest	% Beginning of Quarter	% At end of Quarter
ELA 5811	20km southeast of Woodlawn	New application	0	100

Heron Resources Ltd Tenement Schedule for June 2019 Quarterly Report

Tenement	Location	Heron Interest (%)	Status	Note
New South Wales Projects				
Woodlawn Project				
EL7257	40km SSW of Goulburn	100	Live	
EL7468	5km E of Collector	100	Live	
EL7469	15km E of Bungendore	100	Live	
EL7954	25km W of Goulburn	100	Live	
EL8325	60km ENE of Canberra	100	Live	
EL8353	7.5km SE of Woodlawn	100	Live	
S(C&PL)L20	40km SSW of Goulburn	100	Live	
EL8400	27km NNE of Yass	100	Live	
EL8573	30km NNW of Yass	100	Live	
EL8623	90km north of Woodlawn	100	Live	
EL8712	100km north of Woodlawn	100	Live	
EL8796	65km south of Woodlawn	100	Live	
EL8797	65km south of Woodlawn	100	Live	
Alchemy Farm in & JV Ten	ements			
Barraba-Manilla				
EL8711	90km W of Armidale	49	Live	Alchemy
Nyngan/Girilambone				
EL8631	10km NW of Nyngan	49	Live	Alchemy
EL8318	27km NW of Nyngan	49	Live	Alchemy
Overflow/Eurow/Parkes				
EL5878	100km NW of Condobolin	49	Live	Alchemy
EL7941	100km NW of Condobolin	49	Live	Alchemy
EL8267	70km SE of Cobar	49	Live	Alchemy
EL8356	59km WSW of Tottenham	49	Live	Alchemy
EL8192	23km SE of Parkes	49	Live	Alchemy

Notes:

Alchemy. Subject to Farm-in and Joint Venture Agreement between Alchemy Resources Ltd and Heron.

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

June 2019

	Total number	Number quoted	Issue price per security (see note 3)	Amount paid up per security (see note 3) (\$)
 7.1 Preference securities (description) 7.2 Changes during Quarter (a) Increases through share issues (b) Decreases through returns 				
of capital, buybacks, redemptions	044 000 040	044 000 040		
 Ordinary securities 7.3 Changes during Quarter (a) Increases through share issues (b) Decreases through returns of capital, buybacks 	241,666,912	241,666,912		-
 7.4 Convertible debt securities (description) 7.5 Changes during Quarter (a) Increases through issues (b) Decreases through securities matured, converted 				
7.6 Options/Performance Rights (description and conversion factor)	1,650,000 265,000 2,895,000 (Perf Rights) 2,021,667 (Perf Rights	Nil Nil Nil Nil	Exercise Price \$0.72 \$1.10 \$Nil \$Nil	Expiry Date 4/12/2020 01/02/2022 1 July 2020 1 July 2021
7.7 Issued during Quarter 7.8 Exercised during Quarter				
7.9 Expired during Quarter				
7.10 Debentures (totals only) 7.11 Unsecured notes (totals only)				

Compliance 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest.

Nothing to report



Compliance Statement

- 1. This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2. This statement does give a true and fair view of the matters disclosed.

m gitt Sign here: Date: 31 July 2019 **Company Secretary** Print name: Simon Smith

Notes

- 1. The Quarterly Report is to provide a basis for informing the market how the entity's activities have been financed for the past Quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2. The "Nature of Interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3. **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4. The definitions in, and provisions of, AASB 1022: Accounting for Extractive Industries and AASB 1026: Statement of Cash Flows apply to this report.
- 5. Accounting Standards ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

June 2019

APPENDIX B – DETAILS OF EXPLORATION DRILLING UNDERTAKEN AND JORC TABLE 1

Hole No.	MGA East (m)	MGA North (m)	RL (m)	Surface Dip	MGA Surface Azimuth	EOH Depth (m)	Target	
CHDD0002	735120	6117800	790	-65	110	525.0	Murphy's prospect	
CHDD0003	734360	6119000	823	-73	103	699.8	Bucklands North Prospect	
WNDD0152	734362	6117629	788	-60	100	580.0	Bucklands Prospect	
WNDD0153	734311	6117642	788	-75	100	306.9	Bucklands Prospect	
Nataa MCA - Man	Natas MOA - Max Oxid of Australia Zana EE wid reference							

Drill hole details for diamond drill holes completed to test IP targets.

Notes: MGA = Map Grid of Australia Zone 55 grid reference

JORC 2012 Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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 mineralisation that are Material to the Public Report. 	 Samples from the diamond-core holes are taken from HQ3 sized core and sampled on a nominal 1 metre basis taking into account smaller sample intervals up to geological contacts. The core is cut along the core orientation line (where available) and the half core is sampled. These sampling methods are standard industry methods and provide representative samples for the type of mineralisation encountered. A hand held XRF (Thermo Scientific Niton XL3t XRF Analyser) device is used routinely to provide first pass Zn, Cu and Pb (plus other elements) analyses of the core. This instrument is regularly serviced and calibrated by qualified technicians and the Company conducts its own QAQC on the results to confirm they are reasonable. The results from this device are not considered representative of the core intervals, however, they do provide a broad indication of the likely grade of mineralised zones and other litho-geochemical information.
Drilling techniques	 Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details. 	 Diamond-core drilling was undertaken by Hanjin DE712 rigs with HQ3 sized core being drilled (PQ3 pre-collars). Various techniques are employed to ensure the hole is kept within limits of the planned position. The core is laid out in standard plastic cores trays.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	• The core is transported to an enclosed core logging area and recoveries are recorded. Recoveries to date have been better than 95%. The core is orientated where possible and marked with 1 metre downhole intervals for logging and sampling.
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	The diamond core is geologically logged by qualified geologists. No geotechnical logging or metallurgical sampling is undertaken due to the early nature of the



Criteria	JORC Code explanation	Commentary
	metallurgical studies.	exploration.
Sub-sampling techniques and sample preparation	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	 All core samples selected for assaying are crushed then pulverised in a ring pulveriser (LM5) to a nominal 90% passing 75 micron. An approximately 250g pulp subsample is taken from the large sample and residual material stored. A quartz flush (approximately 0.5 kilogram of white, medium-grained sand) is put through the LM5 pulveriser prior to each new batch of samples. A number of quartz flushes are also put through the pulveriser after each massive sulphide sample (none included for this program) to ensure the bowl is clean prior to the next sample being processed. A selection of this pulverised quartz flush material is then analysed and reported by the lab to gauge the potential level of contamination that may be carried through from one sample to the next.
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. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Sample preparation and assaying is being conducted through SGS Laboratories, West Wyalong, NSW with certain final analysis of pulps being undertaken at the SGS Laboratory in Brisbane QLD. Gold is determined by 50g fire assay fusion with ICP-AES analysis to 10ppb LLD. Other elements by mixed acid digestion followed by ICP-AES analysis. Laboratory quality control standards (blanks, standards and duplicates) are inserted into the sample streams.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 An internal review of results was undertaken by Company personnel. No independent verification was undertaken at this stage. All field and laboratory data has been entered into an industry standard database (DataShed) using a contract database administrator (DBA). Validation of both the field and laboratory data is undertaken prior to final acceptance and reporting of the data. Quality control samples from both the Company and the Laboratory are assessed by the DBA and reported to the Company geologists for verification. All assay data must pass this data verification and quality control process before being reported.
Location of data points	 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. 	 The drill collars were initially located with a combination of handheld GPS and licenced surveyor using a DGPS system, with accuracy of about 1m. The final drill collars are "picked up" by a licenced surveyor with accuracy to 1 centimetre. While drilling is being undertaken, downhole surveys are conducted using a downhole survey tool that records the magnetic azimuth and dip of the hole. These recordings are taken approximately every 30 metres downhole. As a check, certain holes are also being surveyed with gyroscopic methods, with some 10 percent of holes drilled in the current program also surveyed by this

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Criteria	JORC Code explanation	Commentary
		method after drilling has been completed.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 The diamond drilling is first pass testing of geophysical anomalies in areas where little or no drilling of significance has been previously been conducted. Drill hole spacing is not currently relevant.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	• The drilling orientation is designed to intersect the mineralised lenses at a close to perpendicular angle. The mineralised lenses are dipping at approximately 50-70 degrees to the west and the drilling is approximately at 60 degrees to the east. This will vary from hole to hole.
Sample security	The measures taken to ensure sample security.	• The cut core samples are secured in green plastic bags and are being transported to the laboratory via a courier service or with Company personnel/contractors.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	• A review and assessment of the laboratory procedures has been under taken by Company personnel resulting in some changes to their sample pulverising procedure.

Section 2

Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 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. 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. 	 The Woodlawn project is located 250km south-west of Sydney in the state of New South Wales. The area is on the Great Australian Dividing range and has an elevation around 800m above sea-level. The mineral and mining rights to the project are owned 100% by the Company through the granted, special (Crown and Private Land) mining lease 20 (SML20). The lease has been renewed to the 16 November 2029. The project area is on private land owned by Veolia who operate a waste disposal facility that utilises the historical open-pit void. An agreement is in place with Veolia for the Company to purchase certain sections of this private land to facilitate future mining and processing activities. A cooperation agreement is also in place between Veolia and the Company that covers drilling and other exploration activities in the area.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The Woodlawn deposit was discovered by the Jododex JV in 1970 and open-pit mining began in 1978 and continued through to 1987. The project was bought outright by Rio Tinto Ltd (CRA) in 1984 who completed the open-pit mining. Underground operations commenced in 1986 and the project was sold to Denehurst Ltd in 1987 who continued underground mining up until 1998. The mineral

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Criteria	JORC Code explanation	Commentary
		rights to the project were then acquired by TriAusMin Ltd in 1999 who conducted studies on a tailings re-treatment process and further underground operations. Heron took 100% ownership of the project in August 2014 following the merger of the two companies.
Geology	 Deposit type, geological setting and style of mineralization. 	The Woodlawn deposit comprises volcanogenic massive sulphide mineralisation consisting of strata bound lenses of pyrite, sphalerite, galena and chalcopyrite. The mineralisation is hosted in the Silurian aged Woodlawn Felsic Volcanic package of the Goulburn sub-basin on the eastern side of the Lachlan Fold Belt.
Drill hole Information	 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: 	• A table detailing the drill hole information is given in the at the start of the this Table 1.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for 	 The reported assays are weighted for their assay interval width. The majority of the assay interval widths are 1 metre, but this weighting does take into account the non 1 metre intervals and weights the average assay results accordingly. For the results reported here no weighting was included for specific gravity (SG) measurements that have been taken for all sample intervals as the samples within the intervals
	such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	are of a similar SG.
Relationship between mineralization widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	• The massive sulphide zone intercepted in the drilling to date is at an angle to the drill axis and therefore the true width is estimated to be some 0.8 of down-hole width. That is, a down-hole intercept of 16m equates to a true width of 12m. This is only an approximation at this stage and will be better estimated as the orientation of the Lenses is better defined.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Where relevant, a diagram showing the hole positions relevant for current phase of exploration is included in the release. Other maps and diagrams showing the location of the Woodlawn Project are included in other recent Company releases.
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 Results. 	 The reporting is considered to be balanced and all relevant results have been disclosed for this current phase of exploration.
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 	 Selected drill holes are being cased with 50 millimetre or 40 millimetre PVC tubing for potential down-hole DHEM surveying which will be undertaken on selected holes. No SG measurements were determined for this early phase of drilling.

Criteria	JORC Code explanation	Commentary
	contaminating substances.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	 This phase of exploration drilling at Woodlawn commenced in May 2019 with some 2,112m being drilled in 4 holes. It was completed in mid-July 2019. The program was designed to test a number of IP anomalies north of the Woodlawn mine. With the drilling just recently being completed, assay results for selected intervals still need to be received and assessed. A program of DHEM is being planned for selected holes. Additional drilling will be undertaken if considered warranted based on a full assessment of the geological, analytical and DHEM results.