# ASX ANNOUNCEMENT

31 JULY 2019

CODE: ALY

#### **BOARD OF DIRECTORS**

Mr Lindsay Dudfield Non-Executive Chairman

**Mr Leigh Ryan** Managing Director

Ms Liza Carpene Non-Executive Director

Mr Anthony Ho Non-Executive Director

#### **ISSUED CAPITAL**

SHARES 440,419,481

OPTIONS 22,000,000 (Unlisted)

#### **PROJECTS**

WEST LYNN (earning up to 80%)

LACHLAN (earning up to 80%)

**KARONIE (100%)** 

**BRYAH BASIN (10-100%)** 

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# JUNE 2019 QUARTERLY REPORT Highlights

#### WEST LYNN PROJECT (NSW) – Ni-Co-Alumina

- Maiden alumina resource of 6.6Mt @ 20.8% Al<sub>2</sub>O<sub>3</sub>
- Potential for grade increase with beneficiation of ore
- Aluminium extraction of up to 70% using standard HCl leach
- 99.95% HPA produced on first met sample without process optimisation
- Further metallurgical testwork planned

## BRYAH BASIN PROJECT (WA) – Gold / Base Metals

- Hermes South resource upgraded to 114,000oz @ 1.6g/t Au
- Anomalous copper and gold results returned from Sandfire Resources
   Phase 1 aircore drilling SW along strike of the DeGrussa Cu-Au mine
- 584 aircore holes completed by Sandfire across a 26km strike of the Karalundi sediments that host DeGrussa
- Sandfire has commenced follow-up RC drilling at the Churchill prospect
- Regional Moving Loop Electromagnetic survey has commenced
- Horseshoe Lights aircore drilling planned by Sandfire

#### **CORPORATE**

 Alchemy receives an allocation of up to \$330,000 in tax credits for distribution to eligible shareholders via Junior Minerals Exploration Incentive ("JMEI") scheme for the 2019/2020 income year Alchemy Resources Ltd (ASX: ALY; "Alchemy") is an Australian exploration company focused on growth through the discovery and development of gold, base metal and nickel-cobalt resources within Australia (Figure 1). Alchemy has built a significant land package in the Karonie greenstone belt in the Eastern Goldfields region in Western Australia, and has recently earned a 51% interest in the Lachlan/Cobar Basin Projects in New South Wales. Alchemy also maintains its interest in the Bryah Basin Project in the gold and base metal-rich Gascoyne region of Western Australia, where Superior Gold Inc. (TSX-V: SGI), and Sandfire Resources NL (ASX: SFR; "Sandfire") are continuing to advance gold and base metal exploration, respectively.

Work completed by Alchemy during Q2 2019 included the completion of a maiden JORC Code 2012 Edition compliant inferred mineral resource estimate of 6.6Mt @ 20.8% Al<sub>2</sub>O<sub>3</sub><sup>1</sup> and the return of encouraging HCl leach testwork and HPA crystallisation results for the alumina zone of the Summervale Prospect in NSW.

Within the Bryah Basin Superior Gold upgraded the Hermes South gold resource to 2.2Mt @ 1.6g/t for 114,000oz Au², and Sandfire completed 690m of RC drilling (2 holes) and 42,019m of aircore drilling (554 holes) ultimately designed to test a 40km strike of the Narracoota-Karalundi volcano-sedimentary sequence that potentially hosts DeGrussa style high grade copper-gold mineralisation.

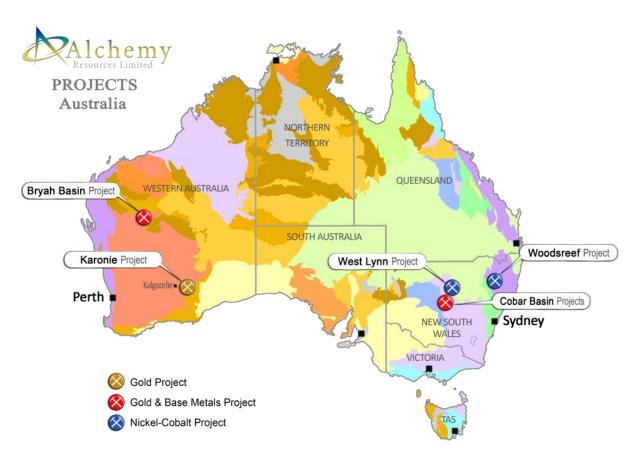


Figure 1: Alchemy Resources Project Location Plan

<sup>&</sup>lt;sup>1</sup> Refer to Alchemy Resources Limited's ASX announcement dated 19 June 2019

<sup>&</sup>lt;sup>2</sup> Refer to Alchemy Resources Limited's ASX announcement dated 8 May 2019

# Lachlan / Cobar Basin Projects (NSW) (Alchemy 51%, earning up to 80%)

The Lachlan / Cobar Basin Projects consist of the Overflow Gold-Base Metal Project, the West Lynn Nickel-Cobalt-Alumina Project, and the Eurow Copper-Gold Project, each containing multiple gold and/or base metal and/or nickel-cobalt targets, including drill-ready targets at Overflow and West Lynn. The projects form part of a Farm-In and Joint Venture with Heron Resources Ltd (ASX: HRR), and are proximal to high profile mining centres in the Cobar Basin and central Lachlan Fold Belt, including Hera/Nymagee (Aurelia Metals Ltd - ASX: AMI), Mallee Bull/Wagga Tank/Southern Nights (Peel Mining Ltd - ASX: PEX), Tritton (Aeris Resources Ltd - ASX: AIS) and the Parkes mining centre (Figure 2).

Alchemy has earned a 51% interest in the eight NSW licences, and subject to the Farm-In and Joint Venture Agreement can earn an additional 29% interest by spending an additional \$1M before 30 May 2021<sup>3</sup>.

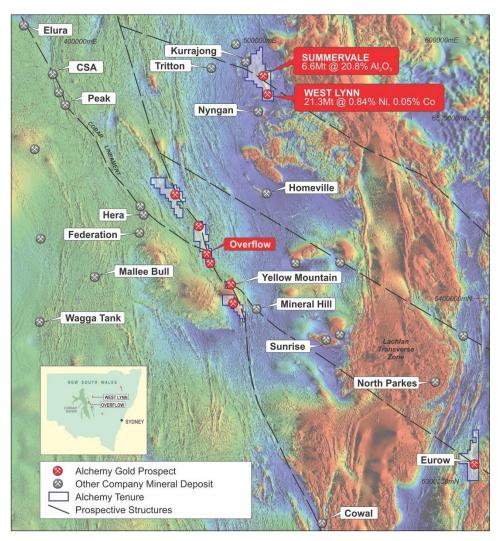


Figure 2: NSW Alchemy / Heron Resources Farm-in / Joint Venture Agreement Projects

<sup>&</sup>lt;sup>3</sup> Refer to Alchemy Resources Limited's ASX announcements dated 14 March 2018 and 13 April 2018

#### West Lynn Ni-Co-Alumina Project (EL8631)

During the quarter Alchemy announced a maiden JORC Code 2012 Edition compliant inferred mineral resource estimate for the alumina zone of the Summervale Prospect located 23km northwest of Nyngan, NSW.

The mineral resource estimate totalling **6.6Mt** @ **20.8%**  $Al_2O_3$  was completed by Resource Evaluation Services (RES) and is reported at an 18%  $Al_2O_3$  lower cut-off as detailed in the table below and presented as Grade Tonnage Curves in Figure 3<sup>4</sup>. The grades are not screened/beneficiated figures.

Table A: Summervale JORC Code 2012 Edition Inferred Mineral Resource Estimate

Deposit	Cut-off (Al <sub>2</sub> O <sub>3</sub> )	Tonnes (M)	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	K₂O%	Na₂O%	TiO <sub>2</sub> %	SiO <sub>2</sub> %
Summervale	18%	6.55	20.8	2.8	1.79	0.43	1.15	64.2

The inferred mineral resource is reported on a dry tonnage basis.

The resource estimate follows an intensive 178 hole drilling campaign completed by Alchemy across the West Lynn and Summervale prospects during 2018, primarily targeting nickel-cobalt mineralisation (*Figure 4*). This work resulted in the maiden nickel-cobalt resource estimate announced by Alchemy in February 2019<sup>5</sup>, and also identified the extensive alumina rich kaolin layer overlying the nickel-cobalt mineralisation at Summervale (*Figures 5 & 6*).

The kaolinite zone hosting the alumina mineralisation at Summervale is flat lying, commences from ~15 to 25m below surface, is between 2m and 40m thick (commonly ~10m thick), and is interpreted to be derived from weathered pelite units of the Girilambone Group. Mineralisation remains open along and across strike, showing good potential to deliver additional resources. It is anticipated that the alumina resource could potentially be exploited in conjunction with open pit mining of the underlying nickel-cobalt resource.

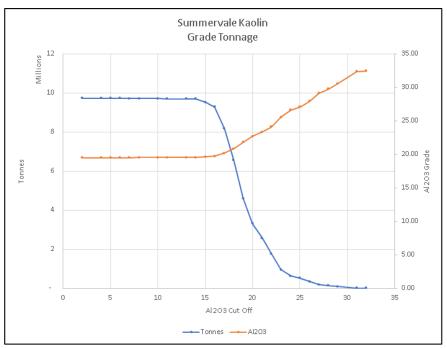


Figure 3: Grade Tonnage Curve - Kaolin Domain

<sup>&</sup>lt;sup>4</sup> Refer to Alchemy Resources Limited's ASX announcement dated 19 June 2019

<sup>&</sup>lt;sup>5</sup> Refer to Alchemy Resources Limited's ASX announcement dated 19 February 2019

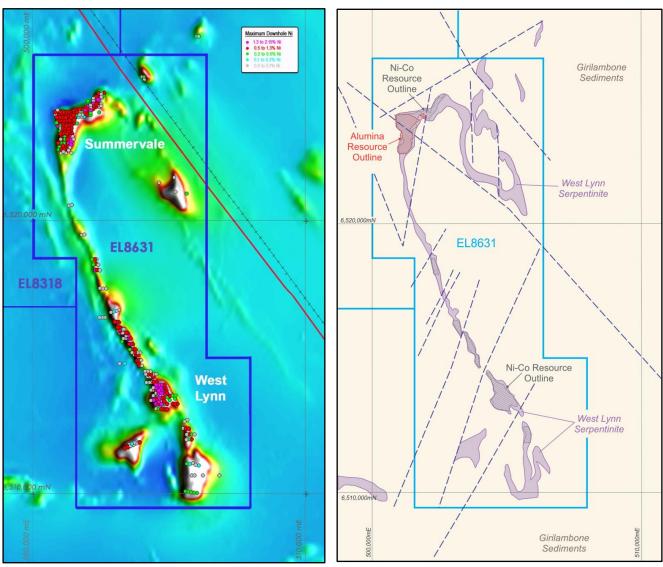


Figure 4: West Lynn Project showing all drilling coloured by maximum downhole Ni (%) over regional aeromagnetic image (left) and Ni-Co and Summervale alumina resource outlines over interpreted structures and bedrock geology (right)

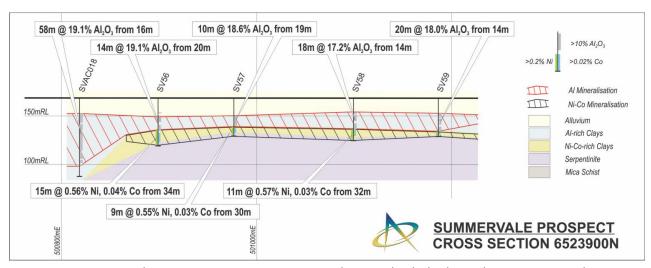


Figure 5: Summervale Prospect cross section 6523900N showing Al-rich clay layer above Ni-Co mineralisation

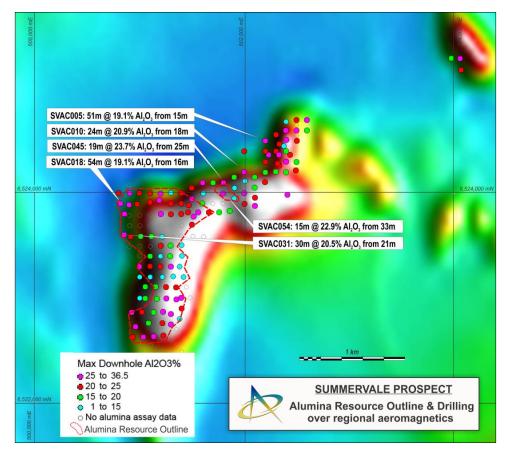


Figure 6: Summervale deposit showing all drilling coloured by maximum downhole  $Al_2O_3(\%)$ , significant drill intercepts, and  $Al_2O_3$  resource outline (red) over regional aeromagnetic image

Initial metallurgical testwork completed by Simulus Laboratories using a hydrochloric acid leach returned aluminium extractions of up to 70%. The leach was completed on a non-screened, non-beneficiated basis, subsequent to a heat treatment at  $650^{\circ}$ C for 1 hour. Crystallisation and calcination of the leach solution produced 99.95% alumina (HPA). XRD results suggest that aluminium extraction could be improved with optimisation of the heat treatment and leaching stages, enabling the production of >99.99% alumina (4N HPA).

#### Overflow Gold-Base Metal Project (285km<sup>2</sup>)

During the quarter a drill program was designed to test the interpreted shallow southerly plunge to high grade gold-base metal mineralisation at the Overflow Prospect. All holes are to be collared within freehold land positions.

### Yellow Mountain and Eurow Copper-Gold Projects (260km²)

No work was completed during the quarter.

#### Girilambone Copper Project (129km²)

No work was completed during the quarter

# **Karonie Project (WA)** (Alchemy 100%)

The Karonie Project includes nine exploration licences and five exploration licence applications covering 829km<sup>2</sup> of highly prospective mineralised structures within Kurnalpi Terrain greenstones 100km east of Kalgoorlie (*Figure 7*). The tenements are located along strike of Silver Lake Resources Ltd's (ASX: **SLR**) Karonie/Harry's Hill and French Kiss deposits (reserves/resources of over 593,000oz @ 2.0g/t Au)<sup>6</sup>, and also cover 36km of the under-explored, gold endowed Claypan Shear Zone commencing just 12km along strike to the south of Breaker Resources NL's (ASX: **BRB**) Bombora deposit (Indicated and Inferred resource of 24.6Mt @ 1.4g/t Au for 1.1Moz)<sup>7</sup>, all within 50km of Silver Lake's Randalls processing plant.

During the quarter drill programs were designed for several key drill targets including the KZ5, Taupo, Parmelia, Gilmore, Aldiss, Challenger, and Esplanade prospects. No ground work was completed during the quarter.

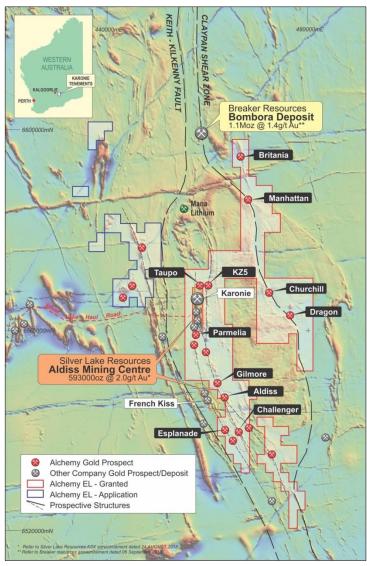


Figure 7: Karonie Project tenements, major deposits, prospects and interpreted major structures over aeromagnetic image

<sup>&</sup>lt;sup>6</sup> Refer to Silver Lake Resources Limited's ASX announcement dated 24 August 2018

<sup>&</sup>lt;sup>7</sup> Refer to Breaker Resources Limited's ASX announcement dated 6 September 2018

# **Bryah Basin Project (WA)** (Alchemy 10-100%)

#### **Base Metals Exploration** (Sandfire earning up to 80%)

Leading Australian base metal producer Sandfire Resources NL is exploring and earning a Joint Venture interest in the whole and part tenements that cover the base metal prospective area of the Bryah Basin Project ("Sandfire Farm-in") in the Gascoyne region of WA (red outline in Figure 8). The Sandfire Farm-in area contains ~60km strike of the Narracoota – Karalundi volcano-sedimentary sequence that is prospective for the discovery of VMS-style copper-gold deposits. Under the terms of the Sandfire Farm-in, Sandfire can earn up to 80% in Alchemy's interests (excluding iron ore rights) through earn-in expenditure of \$3.1M prior to 28 October 2019, with Alchemy free-carried on further exploration to completion of a Pre-Feasibility Study and then carried on an interest-free deferred basis for a further \$5M of Definitive Feasibility Study expenditure with Alchemy to repay the deferred amount from 50% of its share of free cash flow from production following the commencement of mining.

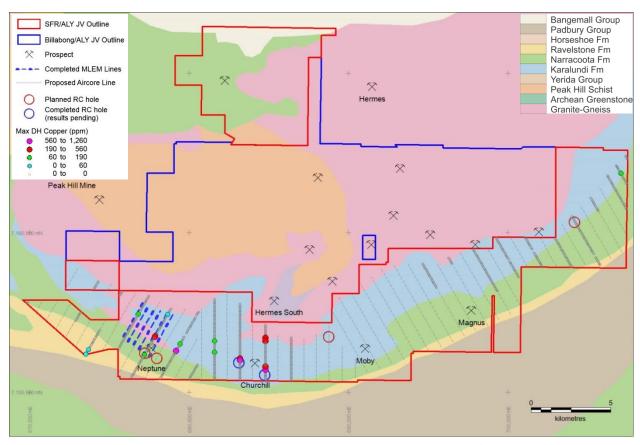
During the quarter Sandfire completed 554 first-pass aircore holes (42,019m) drilled on a 1.6km x 100m spacing across a 26km strike of the and Narracoota and Karalundi formations, along strike to the southwest of the DeGrussa copper-gold deposit (*Figure 8*). The drilling is designed to test a 40km strike of the Karalundi sediments, host to the DeGrussa VMS copper-gold mineralisation. The results will be used to compile a more detailed geological interpretation of the area, which in turn will be used in the planning process for narrowing the line spacing to 800m and then to 400m in the September 2019 Quarter.

Best results from the first 387 aircore holes for which assays have been received include seven 5m composite samples >200ppm Cu to a maximum of 5m @ 0.13% Cu, 5m @ 2.7g/t Au, 5m @ 1.6g/t Au, 10m @ 540ppm Zn, 5m @ 428ppm Pb, and 5m @ 114ppm Bi<sup>8</sup>. Follow-up RC drilling has commenced with two holes for 690m completed at the Churchill prospect and another four RC holes planned (*Figure 8*). All RC results are pending.

A detailed moving loop electromagnetic (MLEM) survey designed to further improve targeting of the host volcanogenic massive sulphide (VMS) horizon has also commenced (*Figure 8*). Strongly conductive stratigraphic units are present along both the SW and NE margins of the survey area. Processing of the EM data is ongoing and, along with recently processed and gridded gravity data, will be incorporated into existing regional datasets and inversion models created. The resulting models will then be used to target VMS mineralisation and further refine the Phase 2 drill program.

Aircore drilling has also been planned for the Horseshoe Lights area. This drilling will target copper-gold mineralisation within the Narracoota volcanics and the Ravelstone Formation sediments.

<sup>&</sup>lt;sup>8</sup> Refer to Alchemy Resources Limited's ASX announcement dated 8 July 2019



**Figure 8**: Sandfire aircore drilling (coloured by maximum downhole Cu (ppm), Farm-in / JV outlines, and proposed drilling over interpreted geology.

#### **Gold Exploration** (Superior Gold 70-80%)

Exploration of Alchemy's tenements that cover the gold prospective part of the Bryah Basin Project (blue outline in *Figure 9*) continued under a farm-in and joint venture arrangement with Billabong Gold Pty Ltd ("**Billabong Gold JV**"), a subsidiary of Superior Gold Inc (TSX-V: SGI "Superior"). Under the terms of the Billabong Gold JV, Alchemy's interest is carried on an interest-free deferred basis to production, with Alchemy to repay the deferred amount from 50% of its share of free cash flow from production following the commencement of mining.

During the quarter Superior upgraded the JORC 2012 compliant resource at the Hermes South deposit to 2.2Mt @ 1.6g/t for 114,000oz Au<sup>9</sup>. The Hermes South resource modelling and resource estimation was completed by Paul Forman of Superior. Top-cuts were applied to the drill hole composite file prior to grades being interpolated. A lower cut-off of 0.6 g/t Au was used to report resources. A summary of the updated Hermes South resource estimate is shown in Table C below.

Table B: Hermes South JORC Code 2012 Indicated and Inferred Mineral Resource Estimate

Hermes South	Tonnes	Grade (g/t Au)	Au (Ounces)	Lower Cut	
Indicated	1,285,000	1.7	72,000	0.6	
Inferred	950,000	1.4	42,000	0.6	
Total	2,235,000	1.6	114,000	0.6	

<sup>&</sup>lt;sup>9</sup> Refer to Alchemy Resources Limited's ASX announcement dated 8 May 2019

Hermes South is located approximately 20km south-southwest of the Hermes mining operation, and 65km southwest of the Plutonic gold mine (*Figure 9*). The mineralisation remains open at depth and has excellent potential for further drilling to expand the area of gold mineralisation and add to the known resource, and Alchemy is hopeful that the Hermes South deposit will become part of the production profile for the Plutonic Gold Operation. Miscellaneous Licence applications to accommodate the development of a haul road between the existing Hermes Haul road and the Hermes South resource area have been lodged.

Assays and metallurgical testwork results for the 4 HQ diamond holes drilled during the last quarter are pending.

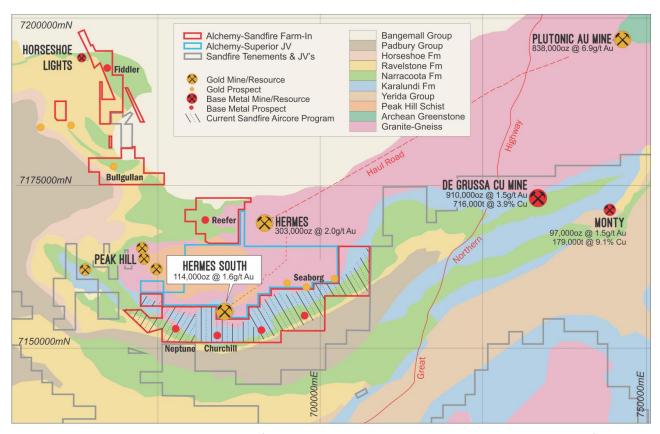


Figure 9: Bryah Basin Project – Alchemy-Sandfire Farm-In and Billabong Gold JV tenements, proposed Sandfire aircore drill lines, and gold and base metal prospects over regional geology interpretation.

#### **Corporate**

Alchemy had \$0.5M cash at hand at 30 June 2019.

Alchemy has been advised by the Australian Taxation Office that its application to participate in the JMEI scheme for the 2019/2020 tax year has been accepted and the Company has received an allocation of up to \$330,000 in tax credits which can be distributed to eligible shareholders. The exploration credit that can be issued to an investor is limited to the amount paid by the investor for the new shares multiplied by the Company's corporate tax rate. Eligible investors must be Australian resident shareholders who apply for and are issued new shares in the Company's capital raising activities between 1 July 2019 and 30 June 2020. JMEI credits will be distributed to all eligible investors on a pro-rata basis.

Please direct enquiries to:

Mr Leigh Ryan – Managing Director

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# APPENDIX 1 Schedule of Mining Tenements as at 31 March 2019

Project/Tenement	State	Status	Interest start Qtr	Interest end Qtr	Co-holder	Notes
Bryah Basin Project						
E52/1668	WA	Granted	80%	80%	Jackson Minerals	1, 2, 3
E52/1678	WA	Granted	80%	80%	Jackson Minerals	1, 2, 3
E52/1722	WA	Granted	80%	80%	Jackson Minerals	1, 2
E52/1723-I	WA	Granted	100%	100%		2, 4, 5
E52/1730	WA	Granted	80%	80%	Jackson Minerals	1, 2, 3
E52/1731	WA	Granted	100%	100%		2, 4
E52/1810	WA	Granted	100%	100%		2
E52/1852	WA	Granted	20%	20%	Billabong Gold	4
E52/2360	WA	Granted	100%	100%		2, 6
E52/2362	WA	Granted	100%	100%		2, 4, 6
E52/3292	WA	Granted	100%	100%		2
E52/3358	WA	Transfer	100%	100%		2
E52/3359	WA	Transfer	100%	100%		2
E52/3405	WA	Granted	100%	100%		2, 4
E52/3406	WA	Granted	100%	100%		2, 4
E52/3407	WA	Granted	100%	100%		2
E52/3408	WA	Granted	100%	100%		2, 4
E52/3409	WA	Granted	100%	100%		2
E52/3472	WA	Granted	100%	100%		2
E52/3475	WA	Granted	100%	100%		2
M52/722	WA	Granted	100%	100%		2, 4, 6
M52/723	WA	Granted	100%	100%		2, 4, 6
M52/723	WA	Granted	20%	20%	Billabong Gold	4, 6
M52/795	WA	Granted	100%	100%	Billaborig Gold	2, 4, 6
M52/844-I	WA	Granted	100%	100%		2, 4, 0
M52/1049	WA	Granted	20%	20%	Billabong Gold	
P52/1425	WA	Granted	100%	100%	Billaborig Gold	4, 6
P52/1427	WA	Granted	100%	100%		2
						2
P52/1428 P52/1429	WA WA	Granted	100% 20%	100% 20%	Billabong Gold	4
		Granted			Billaborig Gold	
P52/1467	WA WA	Granted	100% 100%	100% 100%		2
P52/1468		Granted				2
P52/1469	WA	Granted	100%	100%		
P52/1470	WA	Granted	100%	100%		2
P52/1531	WA	Granted	100%	100%		2
P52/1532	WA	Granted	100%	100%		2
P52/1533	WA	Granted	100%	100%		2
P52/1534	WA	Granted	100%	100%		2
P52/1535	WA	Granted	100%	100%	/5:!! !	
P52/1538	WA	Granted	10%	10%	Jackson / Billabong Gold	1, 4
P52/1539	WA	Granted	10%	10%	Jackson / Billabong Gold	1, 4
P52/1540	WA	Transfer	100%	100%		2
P52/1541	WA	Transfer	100%	100%		2
P52/1565	WA	Granted	100%	100%		2
P52/1566	WA	Granted	100%	100%		2
P52/1567	WA	Granted	100%	100%		2
P52/1568	WA	Granted	100%	100%		2
P52/1572	WA	Granted	100%	100%		2, 6
P52/1577	WA	Granted	20%	20%	Billabong Gold	4, 6

Project/Tenement	Stat e	Status	Interest start Qtr	Interest end Qtr	Co-holder	Notes
Karonie Project						
E28/2575	WA	Granted	100%	100%		7
E28/2576	WA	Granted	100%	100%		7
E28/2601	WA	Granted	100%	100%		7
E28/2619	WA	Granted	100%	100%		7
E28/2643	WA	Granted	100%	100%		7
E28/2657	WA	Granted	100%	100%		7
E28/2667	WA	Granted	100%	100%		7
E28/2668	WA	Granted	100%	100%		7
E28/2681	WA	Application	-	-		7
E28/2752	WA	Granted	0%	100%		7
E28/2818	WA	Appl. pending	-	-		7
E28/2821	WA	Appl. pending	-	-		7
E28/2824	WA	Appl. pending	-	-		7
E28/2880	WA	Application	-	-		7
Lachlan Projects						
EL5878 - Overflow	NSW	Granted	51%	51%	Heron Resources	8
EL7941 - Overflow	NSW	Granted	51%	51%	Heron Resources	8
EL8267 – Overflow Nth	NSW	Granted	51%	51%	Heron Resources	8
EL8356 – Yellow Mtn	NSW	Granted	51%	51%	Heron Resources	8
EL8192 - Eurow	NSW	Granted	51%	51%	Heron Resources	8
EL8318 - Girilambone	NSW	Granted	51%	51%	Heron Resources	8
EL8631 – West Lynn	NSW	Granted	51%	51%	Heron Resources	8
EL8711 - Woodsreef	NSW	Granted	51%	51%	Heron Resources	8

#### Notes:

- 1. Jackson Minerals Pty Ltd, a subsidiary of Fe Ltd (ASX: FEL), retains a 20% interest free-carried to a decision to mine.
- Sandfire Resources NL (ASX: SFR) has a right to explore and earn a 70-80% interest (excludes iron ore) in whole or part tenements
  by sole funding a total of \$3,100,000 of exploration expenditure prior to 28 October 2019, with Alchemy free-carried up to
  completion of a pre-feasibility study.
- 3. Billabong Gold Pty Ltd holds a 70% interest in whole or part of tenement.
- 4. Billabong Gold Pty Ltd holds an 80% interest in whole or part of tenement.
- 5. PepinNini Robinson Range Pty Ltd retains a 1% NSR on iron ore.
- 6. Carey Mining Iron Ore JV: Alchemy has 100% mineral rights for all minerals, excluding iron ore where ownership is Alchemy 50% / Carey Mining 50%.
- 7. Goldtribe Corporation Pty Ltd, a subsidiary of Alchemy Resources Ltd, holds a 100% interest in the tenement.
- 8. Alchemy Resources (NSW) Pty Ltd, a subsidiary of Alchemy Resources Ltd, holds a 51% interest in the tenement, and has a right to earn an 80% interest in tenements from Heron Resources Ltd by sole funding a total of \$2,000,000 on exploration expenditure.

The information in this report that relates to Exploration Results is based on information compiled by Mr Leigh Ryan, who is the Managing Director of Alchemy Resources Limited and holds shares and options in the Company. Mr Ryan is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2012'). Mr Ryan consents to the inclusion in this 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 Mineral Resources at the Hermes South Gold Deposit and at the West Lynn Nickel-Cobalt-Alumina Deposit is based on information compiled by Stephen Godfrey, who is an employee of Resource Evaluation Services Pty Ltd, a consultant to Alchemy Resources Limited. Mr Godfrey is a Fellow of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists, and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2012'). Mr Godfrey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

This report may include forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Alchemy. Actual values, results or events may be materially different to those expressed or implied in this report. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward looking statements in this presentation speak only at the date of issue of this presentation. Subject to any continuing obligations under any applicable law and the ASX Listing Rules, Alchemy does not undertake any obligation to update or revise any information or any of the forward looking statements in this presentation of any changes in events, conditions or circumstances on which any such forward looking statement is based.