

13 November 2023

# **INITIAL DRILLING CONFIRMS LITHIUM SYSTEM**

## HIGHLIGHTS

- Phase 1 drilling confirms the Bonzer Prospect to host an extensive package of multiple, thick, stacked highly fractionated and fertile pegmatites with the potential to host significant lithium mineralisation
- Detailed analysis of the results by consulting geochemist, Sugden Geoscience, confirms the Bonzer pegmatite system to be lithium bearing, highly fractionated and indicative of a spodumene pegmatite type based on specific geochemical ratios and fractionation trends
- Principal lithium minerals identified during geological logging of diamond drill core include spodumene, lepidolite, zinnwaldite, garnet, tourmaline (elbaite) supporting the potential of Bonzer to host significant lithium mineralisation <sup>1</sup>
- The system remains open and untested along strike and at depth, down plunge
- Highly anomalous lithium results are reported from most holes within a broad halo of elevated multi-element LCT pathfinder anomalism. Significant intercepts include:
  - o 23MHRC002: 14m @ 0.13% Li<sub>2</sub>O, (including 8m @ 0.2% Li<sub>2</sub>O) from surface
  - 23MHRC014: 18m @ 0.14% Li<sub>2</sub>O (including 10m @ 0.18% and 2m @ 0.32% Li<sub>2</sub>O) from 34m downhole depth
  - o 23MHD003: 3.9m @ 0.2% Li<sub>2</sub>O from 74.80m downhole depth
  - $\circ$  23MHRC012: 2m @ 0.21% Li<sub>2</sub>O from 124m downhole
  - $\circ~$  23MHRC004: 44m @ 0.05% Li\_2O, (including 4m @ 0.10% Li\_2O) from 104m downhole depth
- Phase 1 drilling only tested a 500m central section of the greater than 2km strike length at Bonzer
- Assay results indicate the initial program has outlined lower grade mineralisation which could represent a halo to a higher-grade zone, within the Bonzer system
- More than 50 pegmatites have been mapped on surface at Morrissey Hill and numerous other targets within the project remain untested
- Phase 1 drilling campaign consisted of 4,500m. Following these encouraging results, the Phase 2 drilling campaign has been doubled and up to 9,000m will commence immediately
- Phase 2 drilling will follow the plunge of the mineralisation at the Bonzer Prospect and also test other pegmatite targets

<sup>1</sup>The Company advises that the reported observation of lithium-bearing minerals occurrence is not an estimate of mineralisation or lithium grade. In relation to the disclosure of visual results, the Company cautions that visual observations or estimates of rock and mineral types or abundance should never be considered a proxy or substitute for laboratory analysis. X-ray diffraction (XRD) and petrological examination is planned to confirm the principal lithium bearing minerals.

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# ASX RR1 ASX ANNOUNCEMENT

#### Commenting on the results CEO Jeremy Bower said:

"RR1 commenced systematic exploration at Morrissey Hill just 9 months ago. In that short time, we have completed a series of technically disciplined, methodical work programs which continue to deliver a large number of priority drill targets. Our Phase 1, 4,500m drilling program at Bonzer was the first ever to have been undertaken at Morrissey Hill and we're excited by the initial indications, and particularly with what the detailed geochemistry is telling us.

Assay results from the initial drill program should be viewed positively by those with a technical understanding of lithium mineralisation, despite not intersecting high grade results, yet. The results show that we have hit lithium mineralisation in a highly fractionated and fertile pegmatite system, but grade is lower in this area. We maintain our confidence that Bonzer has the potential to host higher grade mineralisation for a number of reasons; firstly Phase 1 only targeted a 500m section of the Bonzer pegmatite system, only 4,500m has been drilled to date, lower grade lithium has been achieved which indicates that higher grades are possible nearby, expert geochemist Steve Sugden has run the fractionation ratios and confirmed we are in a fertile, highly fractionated lithium bearing pegmatite system and importantly we have multiple targets that remain untested. We will back our analysis and confidence by doubling our drill metres for Phase 2, which will start immediately."

We have found the smoke, next we find the fire. The Future is within Reach".



Figure 1: Pegmatite drill core from the Morrissey Hill Lithium Project Phase 1 drill program Hole 23MHD003: 3.9m @ 0.2% Li₂O from 74.8m downhole depth.





**Reach Resources Limited (ASX: RR1 & RR1O) ("Reach" or "the Company")** is pleased to announce assay results from the Company's maiden drill program at the Company's 100% owned Morrissey Hill Lithium project in the Gascoyne Mineral Field W.A.



Figure 2: Morrissey Hill Lithium Project showing lithium rock chip results, soil sampling locations and targets for further drill programs (ASX Announcement 15 May 2023 for results).

The Phase 1 drill program comprised 15 RC holes for a total of approximately 2,600m (23MHRC001-15) and 6 diamond drillholes for a total of 1900m (23MHD001-006). Refer to Annexure 3 for drillhole orientation data.



The drilling was designed to test the depth extent and subsurface continuity of surface lithium mineralisation identified from earlier soil and rock chip sampling. Rock chips in the targeted area returned values of up to 2.3 %  $Li_2O$ , 4295 ppm Cs and 706 ppm Ta (Refer ASX: RR1 15 May 2023).

The drilling tested a strike length of approximately 500m within the central part of the greater than 2-kilometre-long Bonzer pegmatite system from surface to a depth of 400m downhole.

Multiple stacked pegmatites were intersected in every drill hole with individual zones reaching up to 30m thick. Several of the more substantial pegmatites encountered are "blind" and show no surface expression. (Refer ASX: RR1 5 Sept 2023).

Multiple significant intercepts were returned from the drilling, including elevated Li, Ta and Cs that display zones of high fractionation (see Annexure 4 for a summary of significant intercepts).

Visual geological logging of diamond core by external geological consultants Newexco identified various pegmatite mineralogy with principal minerals including spodumene, lepidolite, zinnwaldite, albite, microcline, quartz, muscovite, biotite, tourmaline (black and green), garnet, and columbite. Laboratory mineralogical analysis, such as x-ray diffraction (XRD) and petrological examination, is planned to confirm the principal lithium bearing minerals<sup>1</sup>.

The Company's consulting geochemist, Sugden Geoscience, has undertaken a lithogeochemical analysis of the results using both published and custom element ratios and classification diagrams to determine fertility and lithium prospectivity of the pegmatites encountered.

Lithium bearing pegmatites, particularly the LCT type, are anomalous with a number of different elements which can be used to determine the complexity and fractionation of pegmatites. For example, the ratio of potassium (K) over rubidium (Rb) can be used to determine fractionation of pegmatites – known as the K/Rb ratio. The lower the ratio, the more fractionated. A K/Rb ratio of less than 150 represents prospective fractionated pegmatites and less than 20 is considered highly fractionated, and likely to be an LCT pegmatite. K/Rb ratios between 20 and 30 may also be significant indicator to proximity to fractionated pegmatites.

In addition, the ratio of Magnesium (Mg)/Lithium (Li) Mg/Li is a good indicator of the fractionation of pegmatites. An Mg/Li ratio of less than 30 indicates a high degree of fractionation. The lower the ratio the more likely the pegmatite is a spodumene-bearing pegmatite.

Significantly, the scatter plots (Annexures 1 and 2), from pegmatite samples from the Phase 1 drill program confirm that the Bonzer pegmatites are highly fractionated with samples from numerous holes plotting within the spodumene pegmatite fields.

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#### **Next Steps**

- Phase 2 RC drill program for up to 9,000m to commence immediately.
- Further analysis of all available drilling results to identify trends within the fractionation ratios, which has and will continue to provide greater confidence and insight for Phase 2 drilling.
- Mineralogical analysis, such as x-ray diffraction (XRD), will be undertaken on the more significant intercepts to confirm mineralogy.
- Further geological and structural mapping to the northwest of the main drilling area, where transported cover may be masking pegmatite extensions.

This announcement has been authorised by the Board of Reach Resources Limited

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# ASX RR1 ASX ANNOUNCEMENT

#### **About Reach Resources Limited**

Reach Resources is a critical mineral explorer with a large portfolio of tenements in the resource rich Gascoyne Mineral Field. Recent and historical exploration results have confirmed the presence of Lithium, REE, Niobium and Manganese across the Company's land holdings.

However, the Company is distinct from other pure explorers by also having an Inferred Gold Resource at Payne's Find and an investment in a downstream patented technology that recycles the rare earth elements from the permanent magnets required in electric vehicles, wind turbines, hard disk drives and MRI machines (REEcycle Inc.).

#### **Competent Person's Statement**

Information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared and compiled by Mr Steve Vallance, who is a Member of the Australian Institute of Geoscientists. Mr Vallance is the Exploration Manager for Reach Resources Limited employed on a full-time basis. Mr Vallance 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 Exploration Results, Mineral Resources and Ore Reserves. Mr Vallance consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

#### **No New Information**

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

#### **Forward Looking Statement**

This report contains forward looking statements concerning the projects owned by Reach Resources Limited. If applicable, statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forwardlooking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements are based on management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.



#### Annexure 1: Scatter Plot 1 – Lithology fertility showing high proportion of pegmatite samples in the spodumene category.

#### Annexure 2: Scatter Plot 2 – Lithium value prospectivity



#### Annexure 3

**Reach Resources Limited** 

**Project: Morrissey Hill** 

Prospect: Bonzer

Date: Nov 2023

### SUMMARY OF DRILLHOLE ORIENTATION DATA

2	Hole_ID Hole_Type		Collar L	ocation	Dip	Azimuth	From	То	EOH Depth
Ц			MGA_E	MGA_N					
	23MHRC001	RC	415520	7287930	-60	0	0	233	233
	23MHRC002	RC	415475	7288005	-60	0	0	113	113
	23MHRC003	RC	415450	7287940	-60	0	0	113	113
	23MHRC004	RC	415450	7287900	-60	0	0	173	173
	23MHRC005	RC	415540	7287960	-60	0	0	149	149
	23MHRC006	RC	415575	7287940	-60	0	0	137	137
	23MHRC007	RC	415610	7287940	-60	0	0	149	149
	23MHRC008	RC	415605	7287910	-60	0	0	155	155
	23MHRC009	RC	415400	7287940	-60	0	0	125	125
	23MHRC010	RC	415400	7287900	-60	0	0	149	149
	23MHRC011	RC	415740	7288000	-60	0	0	83	83
	23MHRC012	RC	415740	7287960	-60	0	0	149	149
	23MHRC013	RC	415840	7288010	-60	0	0	77	77
	23MHRC014	RC	415840	7287970	-60	0	0	100	100
	23MHRC015	RC	415840	7287930	-60	0	0	142	142
	23MHD001	NQ2 CORE	415520	7287870	-60	0	0	247.6	247.6
	23MHD002	NQ2 CORE	415540	7287800	-60	0	0	324.5	324.5
	23MHD003	NQ2 CORE	415660	7287865	-60	0	0	300.7	300.7
	23MHD004	NQ2 CORE	415660	7287750	-60	0	0	403	403
	23MHD005	NQ2 CORE	415610	7287750	-60	0	0	421	421
	23MHD006	NQ2 CORE	415740	7287800	-60	0	0	420	420

Hole_ID	From	То	Length	Li₂O%	Cs ppm	Ta₂O₅ ppm	$Fe_2O_5\%$	К %	Mg%	Nb pp
23MHD001	20	24	4	0.05	35.28	2.37	0.001	3.66	0.29	25.4
	43.93	47.63	3.7	0.06	89.97	9.68	0.001	3.91	1.34	35.7
	96	112	16	0.08	40.29	1.35	0.001	3.50	0.21	25.9
including	107	112	5	0.10	42.02	1.25	0.001	3.63	0.19	24.6
	118	122	4	0.06	39.93	1.12	0.001	3.03	0.14	26.3
	146.8	147.8	1	0.13	50.20	1.72	0.001	3.88	0.34	18.2
	155.2	157.65	2.45	0.09	50.32	1.39	0.001	4.09	0.13	20.8
including	156.25	156.65	0.4	0.13	69.66	1.70	0.001	4.60	0.22	26.2
	220.45	221.45	1	0.08	35.82	1.30	0.001	3.66	0.16	17.8
	223.45	226.45	3	0.07	59.34	1.04	0.002	3.18	0.11	48.7
23MHD002	12	32	20	0.04	38.53	4.04	0.000	3.60	0.48	20.0
	56	64	8	0.05	31.56	1.68	0.001	3.92	0.05	20.1
	142.8	149.5	6.7	0.04	58.26	1.20	0.003	3.25	0.08	27.8
	162	163	1	0.05	37.13	1.34	0.001	3.89	0.14	16.8
	169	170.1	1.1	0.06	38.89	1.89	0.000	3.46	0.33	17.7
	188	190	2	0.05	41.28	1.28	0.001	3.51	0.25	22.0
	199.97	202.08	2.11	0.04	27.49	1.55	0.000	2.51	0.28	15.1
	205.55	206	0.45	0.05	31.65	1.59	0.000	2.26	0.21	11.4
	234.8	237	2.2	0.05	42.80	1.28	0.001	4.35	0.11	15.9
	244	255.15	11.15	0.06	39.87	1.85	0.001	3.70	0.31	22.2
	261.15	262.15	1	0.05	83.85	0.96	0.004	5.04	0.01	46.9
	268.15	276.6	8.45	0.04	50.88	2.80	0.001	3.22	0.28	32.9
	286	286.4	0.4	0.05	83.41	7.28	0.000	4.75	1.05	21.4
	297.65	297.8	0.15	0.06	62.95	7.32	0.001	4.64	1.20	27.7
	298.23	299.23	1	0.04	55.33	7.35	0.001	4.15	1.05	24.4
2214110002	22	40		0.04	22.70	2.44	0.001	2.02	0.20	
23MHD003	32	40	8	0.04	33.79	2.41	0.001	3.83	0.29	26.3
	74.8	78.7	3.9	0.19	81.77		0.001	3.65	0.25	21.8
	83.05	84.05	1	0.17	61.70		0.001	2.36	0.06	30.0
	95	96	1	0.05	40.90		0.005	1.02	0.01	98.0
	101 108.75	102	1	0.07	69.80 34.94		0.001	5.02	0.02	36.0 21.0
	244	111	2.25		28.37		0.001	4.30	0.12	-
including	244 244	253.7	9.7	0.07 <b>0.11</b>	40.22		0.001	4.20	0.04	51.6 17.0
menuumy	257	<b>246.5</b> 258	2.5	0.11	33.80		0.000	4.20	0.14	88.0
	261	258	1 2	0.08	33.20		0.001	3.91	0.01	70.5
	270.1	203	0.9	0.09	23.20		0.001	1.67	0.01	92.0
	270.1	271	1	0.05	25.90		0.002	3.36	0.00	39.0
	270	283	4	0.03	55.80		0.001	3.06	0.01	53.7
including	279 280.7	283 283	2.3	0.10	70.91		0.002	3.00	0.21	47.9
including	200.7	205	2.5	0.10	,0.51		0.002	5.27	0.50	47.3
23MHD004	20	32	12	0.05	145.55	11.48	0.000	2.85	1.83	16.8
	38	40	2	0.05	78.74	4.88	0.001	2.71	1.16	25.0
	123.85	124.3	0.45	0.11	101.50		0.000	5.65	1.15	24.0

	245.2	245.4	0.2	0.06	73.30		0.001	4.33	1.03	28.0
	289.6	291.8	2.2	0.05	19.45		0.001	2.30	0.20	29.7
	360.35	363	2.65	0.04	63.01		0.006	4.16	0.00	111.2
	365	365.45	0.45	0.05	42.20		0.004	1.45	0.04	65.0
23MHD005	2	12	10	0.06	46.08	1.40	0.001	3.94	0.12	21.7
	18	20	2	0.05	40.82	1.42	0.001	3.94	0.05	17.1
	75	76	1	0.11	229.70		0.001	3.41	2.80	18.0
	82.75	83.65	0.9	0.10	174.60		0.001	2.27	1.99	18.0
	366.4	367	0.6	0.05	22.10		0.002	1.62	0.00	68.0
	370.15	374	3.85	0.07	31.63		0.002	2.37	0.02	90.4
	378.5	379.5	1	0.06	16.40		0.001	1.41	0.01	54.0
	387	388	1	0.07	25.30		0.001	1.88	0.01	62.0
	391	392.55	1.55	0.09	47.44		0.003	3.62	0.02	143.
including	392	392.55	0.55	0.17	89.50		0.005	7.40	0.05	313.
2214110000	10	22	4	0.05	24.20	1 71	0.000	2.00	0.72	12.
23MHD006	18	22	4	0.05	34.39	1.71	0.000	3.80	0.72	13.
	34	36	2	0.04	131.46	13.17	0.000	3.14	3.14	15.
	215	216	1	0.08	36.70		0.001	2.33	0.12	19.
	225	225.9	0.9	0.06	30.10		0.003	2.28	-0.01	74.
	227.9	228.9	1	0.07	38.20		0.003	2.45	-0.01	90.
	232.3	232.8	0.5	0.07	38.20		0.001	2.78	0.30	26.
	306.7	309.7	3	0.11	75.57		0.001	3.62	1.05	42.
23MHRC001	4	6	2	0.05	39.72	4.76	0.000	3.23	0.53	19.
	26	34	8	0.04	48.48	6.51	0.000	3.80	0.81	19.
	84	96	12	0.07	68.50	2.48	0.001	4.84	1.09	21.
	148	150	2	0.04	38.61	1.99	0.001	3.76	0.19	23.
	220	233	13	0.04	35.69	3.86	0.001	2.95	0.46	36.
23MHRC002	0	14	14	0.13	101.49	1.78	0.005	2.85	0.27	58.
including	6	14	8	0.19	125.50	1.97	0.002	3.42	0.30	29.
and	8	10	2	0.27	180.94	2.59	0.002	4.38	0.48	39.
	28	40	12	0.05	30.05	1.68	0.001	3.63	0.12	29.
	60	66	6	0.03	29.10	1.66	0.000	4.11	0.08	17.
	70	104	34	0.03	30.22	2.03	0.001	3.85	0.16	18.
	108	110	2	0.04	34.11	1.87	0.001	3.89	0.14	40.
2204000000	2	6		0.07	171.00	12.40	0.000	2.00	1.00	10
23MHRC003	20	22	4 2	0.07	171.08 52.79	13.48 3.89	0.000	3.08 4.21	1.98 0.47	19. <sup>°</sup>
	88	92	4	0.05	62.05	4.04	0.000	4.21	1.03	23.
	112	113	1	0.05	45.57	2.83	0.000	3.77	0.63	16.
23MHRC004	30	32	2	0.05	31.19	1.82	0.000	6.28	0.35	15.8
	64	66	2	0.05	57.46	3.52	0.000	4.37	0.90	17.
	104	148	44	0.05	42.36	1.85	0.001	3.68	0.22	20.3
including	142	146	4	0.10	39.08	1.97	0.001	4.16	0.11	20.
	154	173	19	0.06	35.21	1.74	0.001	3.91	0.09	21.
			1		1					1
23MHRC005	2	6	4	0.06	110.44	8.81	0.000	4.29	1.55	16.

including	16	20	4	0.09	117.64	7.39	0.000	5.09	1.19	17.37
j	32	34	2	0.04	29.13	2.07	0.000	4.62	0.29	16.10
	90	98	8	0.06	37.45	1.94	0.001	3.80	0.38	26.02
including	92	96	4	0.08	41.11	2.04	0.001	3.95	0.44	28.12
<b>y</b>										
23MHRC006	8	10	2	0.05	85.41	9.51	0.000	5.12	1.60	16.02
	20	22	2	0.05	109.31	8.82	0.000	4.81	1.57	15.34
23MHRC007	2	8	6	0.06	97.23	12.25	0.000	2.57	5.14	5.56
including	6	8	2	0.09	171.75	11.48	0.000	4.08	5.48	6.66
	94	96	2	0.04	47.63	2.87	0.001	3.62	0.73	19.99
23MHRC008	90	92	2	0.05	39.74	3.13	0.000	3.99	0.51	17.48
2310111111000	98	100	2	0.05	62.29	3.35	0.000	3.78	0.31	17.48
			6		31.86	1.74	0.000	3.59	0.87	
	124	130	-	0.04						28.43
	148	150	2	0.05	31.92	2.02	0.000	4.02	0.15	14.83
23MHRC009	44	48	4	0.06	42.51	2.52	0.000	3.90	0.47	20.78
	94	108	14	0.08	43.78	3.05	0.001	4.11	0.75	23.98
including	96	98	2	0.12	80.90	4.03	0.001	7.13	1.00	31.82
23MHRC010	46	48	2	0.05	19.40	1.72	0.000	4.60	0.18	22.53
	74	80	6	0.05	54.57	2.63	0.000	3.72	0.39	20.08
	94	102	8	0.08	61.74	3.00	0.001	4.92	0.65	31.37
including	98	102	4	0.11	65.79	3.36	0.001	6.40	0.67	38.84
	128	140	12	0.04	27.68	1.75	0.001	3.39	0.12	24.19
23MHRC011	0	12	12	0.07	47.18	1.88	0.001	3.38	0.37	14.42
including	0	4	4	0.07	55.94	2.33	0.001	3.42	0.57	15.92
including	20	83	63	0.06	38.78	1.53	0.001	3.84	0.32	25.41
	_									_
23MHRC012	0	2	2	0.05	35.58	1.77	0.001	5.03	0.38	33.83
	12	16	4	0.05	46.12	2.29	0.000	3.64	0.68	15.27
	36	48	12	0.05	30.11	1.66	0.000	4.05	0.31	18.40
	68	70	2	0.05	28.33	1.93	0.000	4.67	0.22	14.41
	76	98	22	0.06	33.07	1.72	0.001	3.88	0.12	29.28
including	90	92	2	0.10	44.11	2.17	0.001	3.80	0.25	19.43
	110	116	6	0.05	48.97	1.52	0.002	4.98	0.02	67.20
	122	136	14	0.10	113.31	6.00	0.002	3.51	0.91	40.56
including	124	126	2	0.21	120.02	6.85	0.003	2.98	1.22	56.28
and	132	136	4	0.11	105.54	7.26	0.000	3.75	1.08	17.80
	140	142	2	0.07	125.64	5.45	0.001	3.90	0.84	20.38
23MHRC013	36	38	2	0.05	33.78	1.04	0.001	A 10	0.10	25 75
	<u> </u>	38 70	2	0.05	33.78 57.40	1.94 7.55	0.001	4.18 3.55	0.10	25.75 17.35
	30	/0	20	0.05	57.40	7.55	0.000	3.33	1.38	17.35
23MHRC014	10	12	2	0.06	28.67	1.54	0.002	2.01	0.06	52.43
	14	30	16	0.08	129.54	9.06	0.001	3.01	1.61	37.16
including	14	18	4	0.11	104.25	5.48	0.001	4.33	0.86	35.07
	34	52	18	0.14	65.37	1.84	0.002	3.85	0.19	57.55
including	34	44	10	0.18	86.06	2.26	0.003	3.83	0.29	63.16

and	34	36	2	0.32	162.84	0.01	3.76	6.10	0.54	117.09
	60	62	2	0.05	33.06	1.19	0.001	4.76	0.03	18.07
	80	86	6	0.08	87.91	9.19	0.000	3.84	1.66	16.50
	90	100	10	0.06	48.72	8.48	0.000	3.37	1.50	16.07
23MHRC015	14	22	8	0.04	84.42	8.79	0.000	3.58	1.46	14.95
	46	48	2	0.04	53.11	8.71	0.000	4.32	1.45	16.80
	52	58	6	0.05	59.63	7.42	0.000	4.67	1.33	17.18
	92	104	12	0.05	80.01	3.01	0.001	2.61	0.41	31.74
	108	124	16	0.06	87.65	9.09	0.000	2.93	2.08	15.18
including	108	110	2	0.09	181.98	8.74	0.000	4.26	1.34	18.01

Note: Blank cells = assay not received.

## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Reverse Circulation (RC) samples were collected at 1 metre intervals directly from the RC drill rig using a cone splitter. 2 to 4 metre composite samples were collected from drill spoil using a PVC spear directly into number coded calico bags.</li> <li>Diamond drilled core samples were taken from NQ2 sized core that is cut in half. Sample intervals are determined by geological boundaries identified during geological logging of the drill core. Sample intervals are generally 1 metre with a minimum of 0.2m and a maximum of 1.2m.</li> <li>All samples were submitted to Intertek Laboratories in Perth WA for initial sample preparation and analyses.</li> <li>Multi-element analysis was completed by Intertek Laboratories Perth WA using 4 acid digest with ICPMS finish; In addition, overrange and/or selected samples were analysed by Sodium peroxide fusion and ICPMS finish and by fire assay with ICPOES finish. Selected holes have been submitted for analysis by Interteks Minalyzer system, a continuous XRF scan providing multi-element geochemistry, high resolution imagery, structural mapping and RQD.</li> <li>Analysis was completed for Au, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tm, U, V, W, Y, Yb, Zn, Zr.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>All RC drilling was undertaken by Strike Drilling using a SchrammT450 drill rig mounted on Mercedes Benz 6x6 Actross truck coupled with truck mounted booster/auxiliary units.</li> <li>All diamond core drilling was undertaken by DDH1 Drilling using a Sandvik DE880 drill rig mounted on an 8x8 MAN truck.</li> </ul>

	Criteria	JORC Code explanation	Commentary
			<ul> <li>Where reverse circulation drilling techniques was employed holes were drilled from surface using 150mm face sampling hammers (drill bits). Stabilizers have been used to reduce hole drift. Each RC hole was surveyed at the collar, every 30m downhole and at final hole depth.</li> <li>Where diamond drilling techniques have been employed, holes were advanced in NQ2 sized core (50.6mm diameter) from the bottom of RC drilled "pre-collars" to the ultimate termination depth for each hole. The majority of holes were drilled utilizing impregnated drill bits, chromed oversized core barrels with core recovered in 6m long core innertubes.</li> <li>Downhole surveys were taken at the starting depth of diamond coring, every 30m downhole and at final hole depth. All surveys were taken using Axis, non-magnetic, north seeking gyros.</li> <li>All core has been orientated every 6m for structural measurements using the ACT MK3 core orientation kit.</li> <li>Prior to geological logging all core is reconstructed for the entirety of each hole on-site, at the Company's field core farm by suitably trained field personnel, on core orientation racks honouring bottom-of-hole orientation measurements and downhole depths as indicated by the senior driller. The core is clearly marked at 1m intervals using chinagraph crayon to assist logging, digital photography and sampling.</li> </ul>
	Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>RC chips were collected at 1m intervals in plastic buckets directly from the rig mounted cyclone sample splitter. Sample were laid out on the ground in neatly ordered rows of 10m runs. Visual estimates of the volume recovered for each 1m sample were monitored by the supervising geologist. The sampling methodology remained consistent throughout the drilling program and reflects industry best practice.</li> <li>All core was reconstructed into continuous runs as described above. Downhole depths were determined by the Senior Driller on each shift and reported on core blocks placed into the core trays at the end of each drill run.</li> <li>Core recoveries were vey high (&gt;98%) reflecting the competency of the rock units encountered throughout the program.</li> <li>All samples are considered to be representative.</li> <li>No sample bias is considered to have occurred given the stringent sampling methodologies employed and the high recoveries achieved.</li> </ul>
(15)	Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> </ul>	RC drill chips were sieved from each of the 1m drill spoils laid out on the ground at the rig site. A representative sample of each metre drilled was

Criteria	JORC Code explanation	Commentary
	<ul><li>Mineral Resource estimation, mining studies and metallurgical studies.</li><li>Whether logging is qualitative or quantitative in nature. Core (or</li></ul>	collected in plastic chip trays as a permanent record. Each chip tray was marked with the relevant hole number and interval depths. Each tray was photographed using digital cameras.
	<ul> <li>costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Detailed geological logging of all RC drill chips was completed at the drill site during the course of drilling by the supervising geologist for the entirety of each hole. Logging typically recorded regolith, weathering, colour, lithology, alteration, veining, mineralogy and mineralisation.
		RC logging is qualitative.
		Detailed geological logging of diamond drill core was carried out by Newexco Geological Consultants recording weathering, alteration, lithology, veining, mineralogy, mineralisation, structure, RQD and core recovery. Each hole has been geologically logged in it's entirety. Drill core logging is qualitative.
		All core was photgraphed with digital camera's prior to cutting and sampling.
		No Resource Estimation work, Mining Studies or Metallurgical Studies are currently underway given the early stage of exploration at Morrissey Hill.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the</li> </ul>	Diamond core samples were taken from NQ2 sized diamond drill core (50.6mm) which has been cut either in half or quarter. Sample intervals reflect geological boundaries identified during detailed logging of the core. Standards and blanks are inserted into the sample string at the rate of 1 in every 50 samples.
	<ul> <li>sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field</li> </ul>	Reverse circulation drill samples were collected every 1m in numbered calico bags at the rig via a rig mounted cyclone sample splitter. 2m or 4m composite samples were collected in numbered calico bags from the drill spoils using the pvc spear technique. Standards, blanks and duplicates were inserted into the sample string at the rate of 1 in every 50 samples.
	<ul> <li>duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	All samples were delivered to Intertek laboratories in Perth WA for initial sample preparation and analyses. Intertek provides it's own internal QA/QC measures in addition to those employed by Reach Resources Ltd.
		Techniques employed at every stage of the process reflect industry best practices and are considered appropriate for this type of exploration activity.

Criteria	JORC Code explanation	Commentary
		Multi-element analysis was completed by Intertek Laboratories Perth WA using 4 acid digest with ICPMS finish; Sodium peroxide fusion and ICPMS finish and by fire assay with ICPOES finish.
D		Analysis was completed for Au, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tm, U, V, W, Y, Yb, Zn, Zr.
		Results are reported in this release.
Quality of assay data and laboratory	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	All sample preparation and assaying was conducted by Intertek Laboratories, Perth WA.
tests	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Upon receipt, samples are sorted, dried, crushed and pulverized.</li> <li>Multi-element analysis was completed on all samples via 4A/MS48; FP6/MS33 and FA50/OE04 techniques which provide partial and total digestion and which are considered appropriate for the range of commodities being targeted and the sampling being undetrtaken.</li> </ul>
		<ul> <li>Analysis was completed for Au, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tm, U, V, W, Y, Yb, Zn, Zr.</li> <li>No geophysical tools were used to determine any element concentrations.</li> </ul>
		<ul> <li>Intertek apply standard quality control procedures including the insertion of check samples, duplicates, blanks and standards.</li> </ul>
		These procedures reflect accepted industry standard procedures     and provide acceptable accuracy and precision.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	Reach Resources Ltd Exploration Manager and Senior Geological personnel from Newexco Geological Consultants have logged and/or verified geological data. No holes were twinned as a part of this program. Primary data was collected by employees of the Company or it's consultants/contractors at the project site and/or at the Company's core

Criteria	JORC Code explanation	Commentary
)	Discuss any adjustment to assay data.	storage/logging facilities in Perth, WA. All measurements and obseravtions have been recorded digitally and entered into the Company's database. Data verification/validation is undertaken prior to entry into the database. Digital data storage and database management is controlled by PivotExims, an independent data management consultancy.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Mineral Resource estimates are not currently being undertaken.</li> <li>All drillhole collars were located using handheld Garmin GPS units which provide an accuracy of +/- 5m.</li> <li>The grid system used is MGA Zone 50 (GDA94).</li> <li>The project's topographic control is adequate for early-stage surface exploration drilling, targeting and reconnaissance.</li> <li>Downhole surveys were undertaken by the Senior Drillers in charge of each shift using non-magnetic Axis North Seeking Gryro's.</li> <li>Downhole surveys were taken at each hole collar, every 30m downhole and at the ultimate termination depth.</li> <li>All survey data is stored in the Company's digital database.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The data is not being used to support estimation of Mineral Resources or Ore Reserves.</li> <li>For RC drilling a maximum sample compositing of 4m has been undertaken.</li> <li>No sample compositing has been applied any sampling of diamond drill core.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Drilling was undertaken orthogonal to strike where possible in order to provide (near to) true width intersections of the targeted pegmatite units and representive sampling.</li> <li>The orientation of the drilling is considered not to have introduced any sampling bias.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	RC samples were collected at the drill site in pre-numbered calico bags which are then placed in polweave sacks and secured using cable ties. Polweave sacks are then loaded into clearly labelled 1t Bulka Bags secured with draw string and cable ties for freight forwarding to Intertek Perth via Centurion Freght. Chain of custody for samples was managed at all times by RR1 personnel including transport from site to Centurion's freight forwarding depot in Carnarvon, WA. Centurion was responsible for delivery to Interteks Perth Laboratory facility located in Maddington. Diamond drill core samples are collected in pre-numbered calico bags at Reach Resources core logging/storage facility in Perth. Calico bags are placed into polyweave sacks and secured using cable ties prior to transporting to Intertek Perth by Reach personnel or courier. Reach is notified by Intertek upon receipt of samples.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>RR1 has not undertaken any audits or reviews with respect to this phase of exploration.</li> <li>Industry standard techniques are applied at every stage of the exploration process.</li> </ul>

## **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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li><u>Yinnetharra Projects</u></li> <li>The Yinnetharra Projects comprise granted licenses E 09/2375 (Morrisey Hill), E 09/2388 and E 09/2354 (Camel Hill) along the Ti Tree Shear Zone, and E 09/2377 and E09/2748 (Wabli Creek) along the Chalba Shear Zone.</li> <li>All tenements are owned 100% by Reach Resources Ltd or its subsidiaries.</li> </ul>
		To the best of our knowledge there are no overriding royalties, historical sites, aboriginal heritage places, national parks,

Criteria	JORC Code explanation	Commentary
		wilderness or environmental settings listed within Reach tenements or it's current applications.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Limited historical prospector scale mining and historical exploration has been undertaken at Morrissey Hill.
		No drilling has been undertaken previously.
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Reach's Yinnetharra tenements lie in the Mutherbukin Zon of the Gascoyne Province and comprises granites of th Moorarie, Durlacher and Thirty Three supersuites. Th Thirty Three Supersuite is the youngest unit in the project area and outcrops along the northern edge of th Mutherbukin Zone, along the Ti Tree Syncline.</li> </ul>
		The Thirty Three Supersuite comprises pegmatites, rangin in size from veins to 10–20-m-wide dykes and shallow dipping sheets up to 200 m in thickness (Sheppard et al 2010). The pegmatites are typically zoned, with massiv quartz cores, and include rare elements (e.g. Bi, Be, Li, Nb Ta), which have been the subject of small-scale minin (Sheppard et al., 2010). Segue Resources Ltd (now Arro Minerals Ltd) identified the Thirty Three Supersuite as fertile and highly fractionated granitic suite with potential to generate Li-Cs-Ta pegmatites. Independent studies by th GSWA support this interpretation.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Refer to Annexure 3 in which provides a summary of drillhol collar location data.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Assay results are reported in this release.</li> <li>Anomalous results have been defined by detailed statistical analysis of the available data as those greater than the 90<sup>th</sup> percentile.</li> <li>No top-cut has been applied.</li> <li>Length weighted grades are calculated for coherent intervals using the 90<sup>th</sup> percentile as a lower cut-off.</li> <li>Internal waste was generally limited to 2m up to a maximum of 6m in wider zones where sensibly defined by geological interpretation.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	All drillholes have been positioned and drilled orthogonal to the mapped or interpreted strike of the targeted pegmatite intrusive units of interest wherever possible in order to achieve intersections reflective of true widths.
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Appropriate maps for the Yinnetharra projects are included in the release.</li> <li>Known pegmatites, mineral occurrences, projects and mines were extracted from WAMEX.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	• Recent and historical results that are considered relevant have been presented here in a balanced manner to avoid misleading reporting. The reported results reflect the full range of results for the target commodities available to Reach Resources at the time of this report. No relevant information has been omitted.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>RSC Mining and Mineral Exploration Consultants were engaged by Reach resopurces Ltd to undertake a prospectivity analysis of the project areas.</li> <li>PGN Geoscience Pty Ltd were engaged by Reach Resources Ltd to undertake an investigation of open-file, public domain, remote sensing datasets relevant to the</li> </ul>

Criteria	JORC Code explanation	Commentary
D		<ul> <li>Morrissey Hill and Camel Hill tenements in order to assess the lithium potential of each. Targeting utilised Multi- spectral Sentinel-2, Aster and Landsat imagery. Relevant datasets were processed and filtered to identify targets</li> <li>Sugden Geoscience Consulting Geochemists have been engaged by Reach Resources to provide an independent assessment of all available data.</li> <li>Data which is relevant to this release is included in this report.</li> <li>All relevant data available to Reach Resources has been documented in this report.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Desktop studies and target identification are in progress.</li> <li>Field reconnaissance and surface geochemical soil surveys are continuing.</li> <li>Phase 2 drilling is planned to commence in November 2023</li> </ul>