

Crater Gold Mining Limited ABN 75 067 519 779

ASX ANNOUNCEMENT

7th February 2018

THICK INTERVALS OF GRAPHITE MINERALISATION INTERSECTED AT GOLDEN GATE PROJECT, QLD

- Graphite intersections obtained;
 - <u>GGDDH 1701:</u> 62.7m @ 6.79% GC* from 29.3m (cut-off 3.4% GC*)
 - Including: 7.0m @10.05% GC* from 66.0m (cut-off 9.4% GC*)
 - <u>GGDDH 1702:</u> 53.9m @ 6.79%GC* from 69.1m (cut-off 3.1% GC*)
 Including: 14.0m @ 8.41% GC* from 101.0m (cut-off 5.9% GC*)
- Diamond core drilling confirms the presence of previously reported thick intervals of graphite mineralisation, with similar intersected interval lengths and grades obtained.
- The Company is optimistic that if further confirmations such as this can be demonstrated, then it may be possible to have much of the remaining available historical data accepted for use in a compliant resource estimation.

The Company (Crater Gold Mining Limited, ASX: CGN) is pleased to announce that it has intersected thick graphite mineralisation in two diamond core holes (GGDDH 1701 and GGDDH 1702) drilled in the Golden Gate Project area at Croydon, North Queensland. Hole GGDDH 1701 (Figures 1 and 2) confirms the intersection (in terms of both intersected interval and grade) reported from near-by historical holes GGRC 2005 and GGDH2 (25m to the NE) drilled by previous exploration company Central Coast Exploration (CCE). Hole GGDDH 1702 (Figures 1 and 3) confirms the down-dip extrapolated extension of GGRC 2003 (95m to the SW) drilled by CCE.

Managing Director Russ Parker stated, "We are really pleased with the results to date of the diamond drilling program. We have confirmed thick intersections of graphite mineralisation with good grades and, from the information presently available, it appears the mineralisation is hydrothermal in nature which often contains good quality flake graphite. We will now move forward with petrological and mineralogical examination to determine if this is the case for our deposit".



Figure 1: GGDH1701 Drill Section

Now that graphite intersections and grades for three historical drill holes drilled in 1989-90 and 1990 by CCE have been effectively confirmed, the Company is optimistic that if further drilling results match the historical drilling results, then it may be possible to have much of the remainder of the historical data accepted for use in a compliant resource estimation. As Central Coast has previously reported what is now a non-JORC compliant resource estimate of 20 million tonnes @ 5.5% graphite, including a zone of 6 million tonnes @ 10.0% graphite, this provides the Company with further optimism for the potential of the Golden Gate Project area. However, it must be noted that it is uncertain if further drilling will demonstrate similar correlation with previously reported historical graphite drill intersections and grades and even if such correlation is achieved, it may not provide sufficient information to allow estimation of a resource estimate in accordance with the 2012 JORC Code.

The thick graphite mineralisation intersected in both of the holes is of similar grade and is hosted in intensely hydrothermally altered (sericitic) granite. Graphite occurs in narrow veins, "clots" and commonly forms rims around xenolithic fragments. While some previous interpretations have considered the graphite to have formed from the assimilation of carbonaceous sediments within the granite during its emplacement, little evidence for this was noted in the core and a hydrothermal origin is favoured. No graphite mineralisation was observed within the Croydon Volcanics (overlying the granite) as historically reported from some previous exploration company activities.

The analytical work involved the crushing of each of the one metre HQ3 half-core sample intervals (most being in the weight range of 3.0 to 4.0 kg) and was undertaken by ALS Laboratory Services Pty Ltd in such a way as to not compromise the representivity and physical character of the remaining sample that was stored for subsequent metallurgical test work. A maximum of 1.0kg from each of the nominal minus 6mm crushed core samples was riffle spilt off and pulverised for

the analytical work. Certified graphite reference material and certified blanks were each submitted with the samples on the basis of 1 in 20. All reported assay results for these were in the acceptable range confirming laboratory accuracy. Reported assay results for laboratory inserted standards, blanks and sample duplicates all indicated very good accuracy and precision for graphitic carbon, gold and copper assays.



Figure 2: GGDDH1702 Drill Section

Total graphitic carbon was determined for all samples by infra-red detection in a LECO furnace. Refer to text Table 1 for a complete list of the assays received.

From the analytical work, the following encouraging graphite intersections were obtained:

- GGDDH 1701: 62.7m (29.3 to 92.0m) @ 6.79% GC* at a cut-off of 3.4% GC* Including: 7.0m (66.0 to 73.0m) @10.05% GC* at a cut-off of 9.4% GC*
- GGDDH 1702: 53.9m (69.1 to 123.0m) @ 6.79%GC at a cut-off of 3.1% GC Including: 14.0m (101.0 to 115.0m) @ 8.41% GC* at a cut-off of 5.9% GC*

GC* = graphitic carbon

No significant gold assays were reported except for one low-grade result for an interval in GGDDH 1701 (82.0 to 83.0m).

Samples will now be selected for petrological and mineralogical examination, QEMSCANS (Quantitative Evaluation of Minerals via Scanning Electron Microscope by SGS) and MLA (Mineral Liberation Analysis scans by ALS Laboratory Services), designed to determine if deleterious minerals are associated with the graphite and to determine the graphite grain size characteristics. Based on the results of these procedures, one or more composite samples will be selected for detailed metallurgical test work to determine graphite quality and potential recoveries.



Figure 3: Graphite Drill hole Plan

For further information contact:

Mr Russ Parker Managing Director The information contained in this report that relates to Exploration Results at the Golden Gate Graphite Project near Croydon, Queensland, is based on information compiled by Ken Chapple, who is an Associate Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Chapple has been assisting the Company as a technical consultant relating to his areas of expertise and was on site participating in, and overseeing, the entire program. Mr Chapple has sufficient experience relevant to the style of mineralisation and type of deposit involved to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Chapple is an independent principal geological consultant with KCICD Pty Ltd and consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

<u>Forward Looking Statements:</u> This Announcement contains certain forward looking statements. The words 'anticipate', 'believe', 'expect', "optimism", 'project', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan' and other similar expressions are intended to identify forward looking statements. Forward-looking statements are subject to risk factors associated with the Company's business, many of which are beyond the control of the Company. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements. You should not place undue reliance on forward-looking statements and neither Crater Gold Mining Limited nor any of its directors, employees, servants, advisers or agents assume any obligation to update such information.

APPENDIX 1. CGN ASSAY DATA, GOLDEN GATE PROJECT

Date							22-Jan-17	22-Jan-17	22-Jan-17
Lab_Report							BR 17282219	BR 17282219	BR 17282219
Assay_Code							C-IR18	Au-AA25	ME-ICP41
Units Coro Sizo		m	m	m	1102		%	ppm	ppm
Core Size LOR					HQ3		0.02	0.01	1.00
Hole_id	Sample_id	From	То	Interval	Drill_Code	Assay_Company	Graphitic Carbon	Gold	Copper
GGDDH 1701	1701/01	29.30	29.90	0.60	DDH	ALS Laboratory Services	4.11	-0.01	
GGDDH 1701	1701/02	29.90	30.70	0.80	DDH	ALS Laboratory Services	6.75	0.02	
GGDDH 1701	1701/03	30.70	30.90	0.20	DDH	ALS Laboratory Services	3.41	0.01	
GGDDH 1701	1701/04	30.90	31.70	0.80	DDH	ALS Laboratory Services	8.28	0.01	
GGDDH 1701	1701/05	31.70	31.95	0.25	DDH	ALS Laboratory Services	0.10	-0.01	
GGDDH 1701	1701/06	31.95	33.00	1.05	DDH	ALS Laboratory Services	8.79	0.01	25
GGDDH 1701	1701/07	33.00	33.65	0.65	DDH	ALS Laboratory Services	7.49	0.01	
GGDDH 1701	1701/08	33.65	34.25	0.60	DDH	, ALS Laboratory Services	3.36	-0.01	
GGDDH 1701	1701/09	34.25	35.00	0.75	DDH	ALS Laboratory Services	7.91	-0.01	
GGDDH 1701	1701/11	35.00	36.00	1.00	DDH	ALS Laboratory Services	8.29	0.02	
GGDDH 1701	1701/12	36.00	37.00	1.00	DDH	ALS Laboratory Services	7.85	0.01	
GGDDH 1701	1701/13	37.00	38.00	1.00	DDH	ALS Laboratory Services	8.21	0.01	
GGDDH 1701	1701/14	38.00	39.00	1.00	DDH	ALS Laboratory Services	7.87	-0.01	
GGDDH 1701 GGDDH 1701	1701/14	39.00	40.00	1.00	DDH	ALS Laboratory Services	5.20	0.01	
GGDDH 1701 GGDDH 1701	1701/15	40.00	41.00	1.00	DDH	ALS Laboratory Services	7.28	0.01	
GGDDH 1701 GGDDH 1701	1701/10	41.00	42.00	1.00	DDH	ALS Laboratory Services	8.10	0.02	
GGDDH 1701 GGDDH 1701	1701/17	42.00	43.00	1.00	DDH	ALS Laboratory Services	7.06	0.01	
GGDDH 1701 GGDDH 1701	1701/18	42.00	43.00	1.00	DDH	ALS Laboratory Services	7.08	0.01	
GGDDH 1701 GGDDH 1701	1701/19	43.00	45.00	1.00	DDH	ALS Laboratory Services	7.06	0.01	
			46.00			· · ·		0.02	
GGDDH 1701	1701/22	45.00		1.00	DDH	ALS Laboratory Services	8.67	0.02	
GGDDH 1701	1701/23	46.00	47.00	1.00	DDH	ALS Laboratory Services	7.29	0.01	
GGDDH 1701	1701/24	47.00	48.00	1.00	DDH	ALS Laboratory Services	6.74	0.01	
GGDDH 1701	1701/25	48.00	49.00	1.00	DDH	ALS Laboratory Services	7.52		
GGDDH 1701	1701/26	49.00	50.00	1.00	DDH	ALS Laboratory Services	7.38	0.01	
GGDDH 1701	1701/27	50.00	51.00	1.00	DDH	ALS Laboratory Services	7.14	-0.01	
GGDDH 1701	1701/28	51.00	52.00	1.00	DDH	ALS Laboratory Services	6.57	-0.01	
GGDDH 1701	1701/29	52.00	53.00	1.00	DDH	ALS Laboratory Services	7.05	0.01	
GGDDH 1701	1701/31	53.00	54.00	1.00	DDH	ALS Laboratory Services	7.61	0.01	
GGDDH 1701	1701/32	54.00	55.00	1.00	DDH	ALS Laboratory Services	6.83	-0.01	
GGDDH 1701	1701/33	55.00	56.00	1.00	DDH	ALS Laboratory Services	5.95	-0.01	
GGDDH 1701	1701/34	56.00	57.00	1.00	DDH	ALS Laboratory Services	7.32	0.02	
GGDDH 1701	1701/35	57.00	58.00	1.00	DDH	ALS Laboratory Services	7.08	-0.01	
GGDDH 1701	1701/36	58.00	59.00	1.00	DDH	ALS Laboratory Services	7.07	0.01	
GGDDH 1701	1701/37	59.00	60.00	1.00	DDH	ALS Laboratory Services	5.72	0.02	
GGDDH 1701	1701/38	60.00	61.00	1.00	DDH	ALS Laboratory Services	4.41	-0.01	
GGDDH 1701	1701/39	61.00	62.00	1.00	DDH	ALS Laboratory Services	5.18	0.01	
GGDDH 1701	1701/41	62.00	63.00	1.00	DDH	ALS Laboratory Services	5.47	-0.01	
GGDDH 1701	1701/42	63.00	64.00	1.00	DDH	ALS Laboratory Services	4.45	-0.01	
GGDDH 1701	1701/43	64.00	65.00	1.00	DDH	ALS Laboratory Services	5.05	0.02	
GGDDH 1701	1701/44	65.00	66.00	1.00	DDH	ALS Laboratory Services	8.37	0.02	
GGDDH 1701	1701/45	66.00	67.00	1.00	DDH	ALS Laboratory Services	9.43	-0.01	
GGDDH 1701	1701/46	67.00	68.00	1.00	DDH	ALS Laboratory Services	9.52	0.02	
GGDDH 1701	1701/47	68.00	69.00	1.00	DDH	ALS Laboratory Services	9.69	0.01	
GGDDH 1701	1701/48	69.00	70.00	1.00	DDH	ALS Laboratory Services	10.15	-0.01	
GGDDH 1701	1701/49	70.00	71.00	1.00	DDH	ALS Laboratory Services	10.45	0.01	

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Date Lab_Report							22-Jan-17 BR 17282219	22-Jan-17 BR 17282219	22-Jan-17 BR 17282219
Assay_Code							C-IR18	Au-AA25	ME-ICP41
Units		m	m	m			%	ppm	ppm
Core Size LOR					HQ3		0.02	0.01	1.00
Hole_id	Sample_id	From	То	Interval	Drill_Code	Assay_Company	Graphitic Carbon	Gold	Copper
GGDDH 1701	1701/51	71.00	72.00	1.00	DDH	ALS Laboratory Services	11.05	-0.01	coppe.
GGDDH 1701	1701/52	72.00	73.00	1.00	DDH	ALS Laboratory Services	10.05	0.02	
GGDDH 1701 GGDDH 1701	1701/52	73.00	74.00	1.00	DDH	ALS Laboratory Services	6.81	0.02	
GGDDH 1701 GGDDH 1701	1701/53	74.00	75.00	1.00	DDH	ALS Laboratory Services	6.41	0.15	
GGDDH 1701 GGDDH 1701	1701/54	75.00	76.00	1.00	DDH	ALS Laboratory Services	6.62	0.15	
GGDDH 1701 GGDDH 1701	1701/55	76.00	77.00	1.00	DDH	ALS Laboratory Services	6.21	-0.01	
GGDDH 1701 GGDDH 1701	1701/50	77.00	78.00	1.00	DDH	ALS Laboratory Services	5.47	0.01	
						•		0.12	
GGDDH 1701	1701/58	78.00	79.00	1.00	DDH	ALS Laboratory Services	4.72		
GGDDH 1701	1701/59	79.00	80.00	1.00	DDH	ALS Laboratory Services	6.21	-0.01	
GGDDH 1701	1701/61	80.00	81.00	1.00	DDH	ALS Laboratory Services	5.51	-0.01	
GGDDH 1701	1701/62	81.00	82.00	1.00	DDH	ALS Laboratory Services	4.50	0.01	
GGDDH 1701	1701/63	82.00	83.00	1.00	DDH	ALS Laboratory Services	3.66	0.56	
GGDDH 1701	1701/64	83.00	84.00	1.00	DDH	ALS Laboratory Services	5.00	0.03	
GGDDH 1701	1701/65	84.00	85.00	1.00	DDH	ALS Laboratory Services	5.44	0.04	
GGDDH 1701	1701/66	85.00	86.00	1.00	DDH	ALS Laboratory Services	8.37	-0.01	
GGDDH 1701	1701/67	86.00	87.00	1.00	DDH	ALS Laboratory Services	3.60	-0.01	
GGDDH 1701	1701/68	87.00	88.00	1.00	DDH	ALS Laboratory Services	5.59	-0.01	288
GGDDH 1701	1701/69	88.00	89.00	1.00	DDH	ALS Laboratory Services	5.07	0.01	
GGDDH 1701	1701/71	89.00	90.00	1.00	DDH	ALS Laboratory Services	4.74	0.01	
GGDDH 1701	1701/72	90.00	91.00	1.00	DDH	ALS Laboratory Services	5.40	-0.01	347
GGDDH 1701	1701/73	91.00	92.00	1.00	DDH	ALS Laboratory Services	5.50	0.02	
GGDDH 1701	1701/74	92.00	93.00	1.00	DDH	ALS Laboratory Services	2.29	0.01	214
GGDDH 1701	1701/75	93.00	94.00	1.00	DDH	ALS Laboratory Services	0.11	-0.01	107
GGDDH 1701	1701/76	94.00	95.00	1.00	DDH	ALS Laboratory Services	0.07	0.01	
GGDDH 1701	1701/77	95.00	96.00	1.00	DDH	ALS Laboratory Services	0.18	-0.01	
GGDDH 1701	1701/78	96.00	97.00	1.00	DDH	ALS Laboratory Services	0.83	0.01	
GGDDH 1701	1701/79	97.00	98.00	1.00	DDH	ALS Laboratory Services	1.53	0.01	
GGDDH 1701	1701/81	98.00	99.00	1.00	DDH	ALS Laboratory Services	0.14	0.01	
GGDDH 1701	1701/82	99.00	100.00	1.00	DDH	ALS Laboratory Services	0.58	-0.01	
GGDDH 1701	1701/83	100.00	100.70	0.70	DDH	ALS Laboratory Services	0.35	-0.01	
GGDDH 1702	1702/84	62.00	63.00	1.00	DDH	ALS Laboratory Services	0.07	-0.01	
GGDDH 1702	1702/85	69.10	70.00	0.90	DDH	ALS Laboratory Services	5.03	-0.01	
GGDDH 1702	1702/86	70.00	71.00	1.00	DDH	ALS Laboratory Services	6.37	0.01	
GGDDH 1702	1702/87	71.00	72.00	1.00	DDH	ALS Laboratory Services	7.63	0.02	262
GGDDH 1702	1702/88	72.00	73.00	1.00	DDH	ALS Laboratory Services	6.44	0.01	
GGDDH 1702	1702/89	73.00	74.00	1.00	DDH	ALS Laboratory Services	6.64	0.02	
GGDDH 1702	1702/91	74.00	75.00	1.00	DDH	, ALS Laboratory Services	7.23	0.01	
GGDDH 1702	1702/92	75.00	76.00	1.00	DDH	, ALS Laboratory Services	7.36	0.01	
GGDDH 1702	1702/93	76.00	77.00	1.00	DDH	ALS Laboratory Services	6.93	-0.01	
GGDDH 1702	1702/94	77.00	78.00	1.00	DDH	ALS Laboratory Services	7.01	0.03	
GGDDH 1702	1702/95	78.00	79.00	1.00	DDH	ALS Laboratory Services	7.40	-0.01	266
GGDDH 1702 GGDDH 1702	1702/96	79.00	80.00	1.00	DDH	ALS Laboratory Services	6.50	0.01	200
GGDDH 1702 GGDDH 1702	1702/90	80.00	81.00	1.00	DDH	ALS Laboratory Services	7.20	-0.01	
GGDDH 1702 GGDDH 1702	1702/97	81.00	81.00	1.00	DDH	ALS Laboratory Services	7.20	0.01	
								0.02	
GGDDH 1702	1702/99	82.00	83.00	1.00	DDH	ALS Laboratory Services	7.94	0.01	

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Date							22-Jan-17	22-Jan-17	22-Jan-17
Lab_Report							BR 17282219	BR 17282219	BR 17282219
Assay_Code							C-IR18	Au-AA25	ME-ICP41
Units Core Size		m	m	m	1102		%	ppm	ppm
Core Size LOR					HQ3		0.02	0.01	1.00
Hole_id	Sample_id	From	То	Interval	Drill_Code	Assay_Company	Graphitic Carbon	Gold	Copper
GGDDH 1702	1702/101	83.00	84.00	1.00	DDH	ALS Laboratory Services	6.09	-0.01	
GGDDH 1702	1702/102	84.00	85.00	1.00	DDH	ALS Laboratory Services	7.49	0.01	
GGDDH 1702	1702/103	85.00	86.00	1.00	DDH	ALS Laboratory Services	7.97	0.01	
GGDDH 1702	1702/104	86.00	87.00	1.00	DDH	ALS Laboratory Services	7.81	-0.01	283
GGDDH 1702	1702/105	87.00	88.00	1.00	DDH	ALS Laboratory Services	8.16	0.01	
GGDDH 1702	1702/106	88.00	89.00	1.00	DDH	ALS Laboratory Services	6.17	0.01	
GGDDH 1702	1702/107	89.00	90.00	1.00	DDH	ALS Laboratory Services	5.44	0.02	
GGDDH 1702	1702/108	90.00	91.00	1.00	DDH	ALS Laboratory Services	6.88	0.01	
GGDDH 1702	1702/109	91.00	92.00	1.00	DDH	ALS Laboratory Services	5.14	0.01	
GGDDH 1702 GGDDH 1702	1702/103	92.00	93.00	1.00	DDH	ALS Laboratory Services	6.52	0.02	261
GGDDH 1702 GGDDH 1702	1702/111	93.00	93.00	1.00	DDH		6.29	0.01	201
	1702/112	93.00 94.00	94.00	1.00	DDH	ALS Laboratory Services ALS Laboratory Services	6.49	0.01	
GGDDH 1702	1702/113	94.00 95.00	95.00		DDH	ALS Laboratory Services	6.49	0.01	
GGDDH 1702				1.00		,			
GGDDH 1702	1702/115	96.00	97.00	1.00	DDH	ALS Laboratory Services	5.38	0.02	
GGDDH 1702	1702/116	97.00	98.00	1.00	DDH	ALS Laboratory Services	6.17	0.02	
GGDDH 1702	1702/117	98.00	99.00	1.00	DDH	ALS Laboratory Services	6.36	0.01	
GGDDH 1702	1702/118	99.00	100.00	1.00	DDH	ALS Laboratory Services	5.85	0.02	
GGDDH 1702	1702/119	100.00	101.00	1.00	DDH	ALS Laboratory Services	6.59	-0.01	247
GGDDH 1702	1702/121		102.00	1.00	DDH	ALS Laboratory Services	8.51	0.02	
GGDDH 1702	1702/122	102.00	103.00	1.00	DDH	ALS Laboratory Services	10.05	0.01	
GGDDH 1702	1702/123		104.00	1.00	DDH	ALS Laboratory Services	7.54	0.01	
GGDDH 1702	1702/124	104.00	105.00	1.00	DDH	ALS Laboratory Services	8.99	-0.01	324
GGDDH 1702	1702/125	105.00	106.00	1.00	DDH	ALS Laboratory Services	8.51	0.01	
GGDDH 1702	1702/126	106.00	107.00	1.00	DDH	ALS Laboratory Services	9.43	0.01	
GGDDH 1702	1702/127	107.00	108.00	1.00	DDH	ALS Laboratory Services	8.72	0.01	
GGDDH 1702	1702/128	108.00	109.00	1.00	DDH	ALS Laboratory Services	9.58	0.01	388
GGDDH 1702	1702/129	109.00	110.00	1.00	DDH	ALS Laboratory Services	5.94	-0.01	210
GGDDH 1702	1702/131	110.00	111.00	1.00	DDH	ALS Laboratory Services	9.30	-0.01	155
GGDDH 1702	1702/132	111.00	112.00	1.00	DDH	ALS Laboratory Services	7.09	0.02	
GGDDH 1702	1702/133	112.00	113.00	1.00	DDH	ALS Laboratory Services	7.04	0.01	
GGDDH 1702	1702/134	113.00	114.00	1.00	DDH	ALS Laboratory Services	8.28	-0.01	335
GGDDH 1702	1702/135	114.00	115.00	1.00	DDH	ALS Laboratory Services	8.72	-0.01	317
GGDDH 1702	1702/136	115.00	116.00	1.00	DDH	ALS Laboratory Services	6.79	0.01	
GGDDH 1702	1702/137	116.00	117.00	1.00	DDH	ALS Laboratory Services	4.48	0.01	
GGDDH 1702	1702/138	117.00	118.00	1.00	DDH	ALS Laboratory Services	5.10	0.01	
GGDDH 1702	1702/139	118.00	119.00	1.00	DDH	ALS Laboratory Services	4.81	0.01	
GGDDH 1702	1702/141	119.00	120.00	1.00	DDH	ALS Laboratory Services	3.48	0.01	
GGDDH 1702	1702/142	120.00		1.00	DDH	ALS Laboratory Services	3.45	0.02	
GGDDH 1702	1702/143	121.00		1.00	DDH	ALS Laboratory Services	3.37	-0.01	140
GGDDH 1702	1702/144	122.00		1.00	DDH	ALS Laboratory Services	3.12	0.01	
GGDDH 1702	1702/145	123.00		1.00	DDH	ALS Laboratory Services	1.66	0.01	109
GGDDH 1702	1702/146	124.00		1.00	DDH	ALS Laboratory Services	1.42	0.01	97
GGDDH 1702	1702/147		126.00	1.00	DDH	ALS Laboratory Services	1.42	0.01	95
GGDDH 1702 GGDDH 1702	1702/147	125.00		0.60	DDH	ALS Laboratory Services	0.78	0.01	71

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard mea surement 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. 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. 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. 	 The program undertaken at the Croydon Golden Gate Graphite Project was designed to validate graphite intersections and grade as reported from previous historic drilling. In the area drilled, the graphite is hosted by Proterozoic Esmeralda granite overlain by a thin layer of Proterozoic Croydon Volcanics, all under a thin veneer of surface alluvium. Two diamond cored holes (GGDDH 1701 and GGDDH 1702) were completed which were successful in intersecting graphite mineralization within strongly altered granite. No evidence was seen to support historical reports of graphite mineralization developed within the Croydon Volcanics. Both holes were logged before the graphitic intersections were individually sampled (sawn half core) on one metre intervals (with some variations to suit geological boundaries) and submitted for graphite carbon, gold and limited copper assay. The Company was particularly careful to ensure there was no contamination of the core by carbon bearing materials. The sample preparation and assaying procedures are considered to be of industry standard and appropriate for this type of mineralization. The program was participated in and overseen by experienced geologist Mr Ken Chapple who is the Competent Person who prepared this Announcement.
Drilling techniques	 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). 	 As high core recovery (>95%) was critical to achieve the program objectives, triple tube HQ3 coring was used (diameter 61.1mm). Also, a contract drilling company, Saxon Drilling, was engaged for the program as they specialize in high recovery geotechnical drilling. This proved to be successful with very high recoveries being achieved. As both holes were vertical, core orientation and down hole surveys were considered to be not relevant so were not attempted.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 All core runs (mainly 3.0m unless broken ground was encountered) were pumped out from the triple tube splits, washed (to remove any carbon that may have accumulated from the contaminated recirculating drilling water) and placed into PVC tubes (cut into two equal halves). Recoveries from each core run were then tape measured on-site in the PVC tubes for an accurate determination. Recoveries were found to be excellent such that representivity was preserved. One metre sample intervals were then marked out using a tape measure and a crayon pencil. While the core was still in the PVC tubes, engineering measurements including discontinuity/fracture descriptions, fracture counts per core run, RQD and SCR (Solid Core Recovery) were recorded. Each core run in the PVC tubes was then photographed (wet and dry) on-site to obtain a file record of the core before it was broken to fit into the core trays. The core was then carefully placed in HQ core trays and transported some 7km to a secure core processing shed in Croydon. With the high recovery achieved, there was no loss or gain of fine/course material and no sample bias.
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 metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 At the core processing shed the boxed core was photographed (wet and dry) and geologically logged together with engineering measurements for weathering, hardness and fracture angles to the core axis. Appropriate tools were used for this work. All of the core is considered to be quantitatively logged both geologically and geotechnically to a level to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Samples were also collected for later petrological/mineralogical examination to assist in geological identification and logging. This has particularly been the case for the graphite mineralisation where only a preliminary visual estimate was attempted. Features identified in the core that provide evidence for mineralisation styles and origins were specifically photographed for the record. After sampling, the half core being retained for the record was again photographed (dry only) before being wrapped in plastic pallet wrap and placed on pallets and stored on site in Croydon under cover to maximise preservation and security.

Criteria	JORC Code explanation	Commentary
		 The logging was undertaken and overseen by experienced geologist Mr Ken Chapple who is the Competent Person who prepared this Announcement.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the ir situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	to 70% passing 6mm.A maximum of 1.0 kg from each sample interval was riffle split off and
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. 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. 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. 	 CRU-21 Crush entire sample to 70% passing 6mm. SPL-21 Split off maximum 1.0 kg sample, retain remaining coarse residue for later metallurgical test work. PUL-23 Pulverise 1.0kg sample split for assay determination

Criteria	JORC Code explanation	Commentary
		 digested in 50% HCL to evolve carbonate as CO2. Residue filtered, washed, dried then roasted to 425C. Residue analysed for carbon by high temperature LECO furnace with infra-red detection. For quality control, certified graphite reference material prepared by OREAS was submitted with the samples on the basis of 1 in 20. Certified blank reference material, also prepared by OREAS, was also submitted with the samples on the basis of 1 in 20. No issues with accuracy of the reported results were encountered. Reported assay results for laboratory inserted standards, blanks and duplicates revealed very good precision and accuracy. The assay results would be acceptable in a later resource calculation if required. The Competent Person is satisfied that the reported graphitic carbon results are representative with good accuracy and precision. No external laboratory checks have been undertaken.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No verification of the graphitic carbon intersections has been undertaken at this stage either by independent or alternative company personnel. No pulps have been sent to other laboratories for check assay. No attempt has been made to twin historical drill holes. However, both holes were collared relatively close to previous ones in an attempt to validate previously reported graphitic intersections depths and grades or extensions therefrom. The primary data, has been entered into a series of dedicated data sheets which is considered appropriate at this stage of the program. There has been no adjustment of assay data.
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. Specification of the grid system used. Quality and adequacy of topographic control. 	 The drill collars of the two holes were located by a hand held GPS which indicated an accuracy of +/- 4m. The Grid system used was WGS84 Zone 54 K. Ground location is considered appropriate for the purpose of the work undertaken to date.
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. 	 Data spacing, being the drill core sample intervals, is considered appropriate for determining the degree of geological and grade continuity for mineral resource estimation purposes at a future date. No sample compositing has been applied at this stage, but it is intended that this will be undertaken later for selection and preparation of representative samples for metallurgical testing.

Criteria	JORC Code explanation	Commentary
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. 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. 	 The vertical drill holes have been drilled perpendicular to the essentially horizontal orientation of the graphite mineralised zone. The orientation of the drill holes is not considered to have introduced a sample bias.
Sample security	The measures taken to ensure sample security.	 An experienced geologist, Mr Ken Chapple who is the Competent Person preparing this Announcement, was on site for the duration of the drilling program and closely monitored the handling of the drill core during all stages. After receiving the core from the drilling contractor, it was photographed and measured on-site as outlined above, then placed into core trays and transported the short distance (7km) to the Croydon core processing and storage facility. The storage facility was locked overnight and during the day processing of the core was undertaken and overseen by the Competent Geologist. For truck transport to Brisbane, the core samples were placed on pallets and secured with plastic pallet wrap to guard against samples falling off or being tampered with. The other half of the core is kept in core boxes that are stored on pallets under cover at the facility and wrapped in plastic pallet wrap to prevent them being tampered with and sealing them off from pests. During truck transport to Brisbane the samples were under the control of the transport company. Upon arrival in Brisbane, ALS assumed security of the samples. Following analytical work, the samples will be placed in secure storage at ALS. ALS did not report any evidence of tampering with the samples upon arrival and beyond at their sample preparation facility in Geebung
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• Other than the Competent Person, Mr Ken Chapple, participating in and overseeing the entire program, no audits or reviews of the sampling techniques and the data obtained have been undertaken.

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	 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, 	 The area where the drilling was undertaken is located within EPM 18616 which is held by the Company. The licence is current with renewal due 18th March 2018.

Criteria	JORC Code explanation	Commentary
land tenure status	 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. 	 Specifically, the area where the drilling activities were undertaken is owned by the State of Queensland and held as a Reserve for traditional owners, the Tagalaka People. The Tagalaka Aboriginal Corporation Registered Native Title Body Corporate (RNTBC) is Trustee for the land which they lease to local pastoralist John Pickering for cattle grazing. The Company holds an executed access agreement with the State Government and the Tagalaka People to access the reserve for exploration and drill at the selected sites for GGDDH 1701 and GGDDH 1702 and has issued a notice of entry to John Pickering for this purpose. The drilling was undertaken outside of the area of the Queensland Government Golden Gate Heritage Site.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Central Coast Exploration has previously undertaken drilling to assess the graphite resources of the Gold Gate area. They drilled numerous holes and reported a resource which is non-compliant with the current JORC criteria. The current program was designed to validate three of their drill holes to determine the graphite mineralisation intersections and grade with two holes some 95m apart.
Geology	• Deposit type, geological setting and style of mineralisation.	 Previous interpretations of the graphite minerlaisation considered it to developed within xenoliths of carbonaceous sediments assimilated by the Esmeralda Granite along its contact with the overlying Croydon Volcanics. This implied that the graphite was of biological origin. However, logging of the drill core from the current program has provided evidence that the graphite has been emplaced by hydrothermal fluids in strongly altered granite.
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from 	 Drill hole collar location information and orientation for the two holes is as follows; <u>Hole GGDDH 1701</u> Collar: 0627706mE 7991579mN RL: 104m Core Size: HQ3 (61.1mm diameter) Dip: Vertical (-90) Azimuth (vertical) Hole Depth: 100.70m Intersection Depth of Graphite Mineralisation: 29.30m <u>Hole GGDDH 1702</u> Collar: 0627795mE 7991529mN RL: 104m

Criteria	JORC Code explanation	Commentary
	the understanding of the report, the Competent Person should clearly explain why this is the case.	Core Size: HQ3 (61.1mm diameter) Dip: Vertical (-90) Azimuth (vertical) Hole Depth: 126.60m Intersection Depth of Graphite Mineralisation: 69.10m
Data aggregation methods	 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Graphite grade contributions for each sample interval were determined by dividing the length of each sample interval by the total length of the mineralized intersection and multiplying by the grade of that sample interval – this accounted for the inclusion of non-uniform sample intervals. Graphite intersections are as follows (GC=Graphitic Carbon); Hole GGDDH 1701 62.7m (29.3 to 92.0m) @ 6.79% GC {cut-off 3.4% GC} Including 7.0m (66.0 to 73.0m) @ 10.05% GC {cut-off 9.4% GC} Hole GGDDH 1702 53.9m (69.1 to 123.0m) @ 6.79% GC {cut-off 3.1% GC} Including 14.0m (101.0 to 115.0m) @ 8.41% GC {cut-off 5.9% GC} No significant gold assays were reported except for one low grade result (0.56 g/t) for an interval in GGDDH 1701 (82.0 to 83.0m). Some low level elevated background copper results of up to 388 ppm were obtained from selected samples.
Relationship between mineralisation 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. 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'). 	 As the geometry of the mineralisation with respect to the vertical drill holes is not definitely known, all intersections must be considered as down hole lengths and not as true depths or thicknesses. However, as the holes are both vertical and the engineering measurements indicate that most fractures in the graphite zone are near horizontal, the down hole lengths could, as a reasonable approximation, be considered close to the true depths or thicknesses.
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. 	• Refer to Figure 1, 2 and 3 showing the plan and sectional views of the collars in the main body of the text.
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 Exploration Results.	• Graphitic carbon assays for all intervals sampled have been tabulated in the main body of the report. In addition, Au assays for all intervals and Cu for selected intervals are also included.

Criteria	JORC Code explanation	Commentary
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 contaminating substances. 	 The current exploration results will be evaluated and follow-up work will be planned. Results of this additional work will be reported as it becomes available.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 It is envisaged that further work will include; Selection of samples for petrographic/mineralogical examination to determine rock types, alteration, type and form of graphite mineralization and whether there are any potentially deleterious contaminating minerals present and their location (that is within or external to the graphite grains). Selection of samples for QEMSCAN (Quantitative Evaluation of Minerals using Scanning Electron Microscope – SGS procedure) and MLA investigation (Mineral Liberation Analysis Scans by ALS Laboratory Services Pty Ltd) Depending on results, selection of representative composite sample or samples for detailed metallurgical testing will be undertaken to determine graphite quality and expected recoveries.