



# ALPACA HILL DRILLING UPDATE

# **Key Highlights**

- Diamond drilling progressing at the Alpaca Hill SEDEX/IOCG target and currently at 382m depth with difficult conditions with rain on site and significant water.
- Drilling expected to reach the target zone within the next few days; and
- The observed geology to date indicates that a SEDEX target might also be possible at Alpaca Hill.

Further to its ASX announcement of 17 November 2023, Inca Minerals Limited (**ASX: ICG; Inca or the Company**) provides a further update on the progress of its maiden diamond drill program at the high-priority Alpaca Hill IOCG/SEDEX target, part of its Frewena Fable Project in the East Tennant Province, Northern Territory.

As previously reported, drilling progress has been slower than expected due to both the impact of rain on site access and in encountering significant water within the overlying Georgina basin sediments which required a shift from RC to diamond drilling much earlier than anticipated. Further complicating the matter has been encountering broken ground, around the 200m depth mark, further slowing progress and also requiring a temporary shift from NQ to HQ diameter core.

Drilling is currently at 382m and approaching the top of the target zone. Assuming that there are no more complications, or further rain delays, it is expected that the top of the target zone will be reached within the next couple of days. The fact that drilling is taking longer than planned is frustrating but that is always the risk when drilling and especially in what is a greenfields site where there is no knowledge of the nature of the geology being encountered.

# Geology, alteration, and mineralisation observations

Whilst the geophysical targets of offset gravity and magnetic highs were suggestive of a potential IOCG target, the observed geology to date indicates that a SEDEX target might also be possible at Alpaca Hill. The geophysical signatures are not inconsistent with the potential for a SEDEX target with the strong gravity signal potentially being generated by the presence of a sulphide (heavy/dense material) body. Clearly more information is required to clarify this matter and as drilling approaches the main part of the target, we will have a better idea.

Drilling to date has intercepted shales, well sorted fine-medium grained sandstone, and siltstones. Textures vary from brecciated, laminated, and massive with variable degrees of voids, giving patchy vuggy textures. The occurrence of vuggy textures is indicative of the influence of corrosive groundwater circulation, selectively removing soluble material such as halites, limestone, gypsum, anhydrite, and chalk from the country rock. Some of the voids are filled by late-stage carbonates such as calcite while others are juvenile and open with no infill textures.





Most of the siltstones intercepted are dolomite-altered while silicification appears to be weak to moderate, but pervasive throughout the drill core. There is also evidence of multiple phases of brecciation of the siltstones and some infill veining, all of which are considered encouraging. Iron oxide alteration is weak and mainly appears as patchy discolouration on fracture planes but is strong to intense from 359 to 362m with obliteration of the host siltstone texture. Only remnant textures of the host rock are discernible in this interval.

Observed mineralisation includes galena (lead sulphide, PbS), sphalerite (zinc sulphide, ZnS or [Zn,FeS]), and pyrite (FeS<sub>2</sub>). Galena and sphalerite occur as veins/veinlets, vein infills and as part of the cementing material within breccia units (Figure 1). Pyrite is weakly and finely disseminated within the siltstones and as patchy infill within voids.

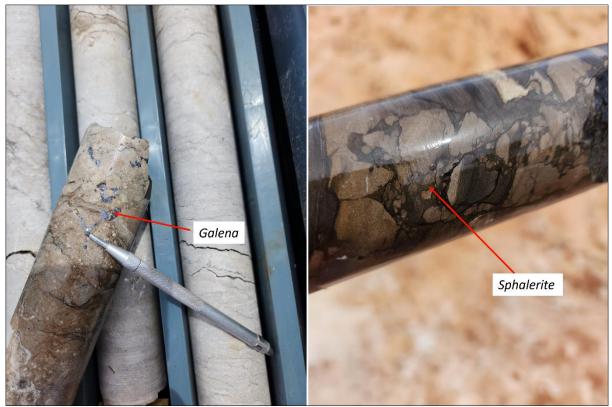


Figure 1: Observed galena (lead sulphide) and sphalerite in (zinc sulphide) in brecciated dolomitic siltstone and shale. These rocks (dolomitic siltstones and shales are analogous to the host rocks of the Mt Isa SEDEX lead-zinc deposits. Galena occurs around 300m depth and sphalerite at 333m. Galena abundance is estimated to be about 2% and sphalerite about 1% in the reported depths.

In relation to the disclosure of visible galena and sphalerite mineralisation, Inca Minerals Ltd cautions that visual estimates of the abundance of sulphides material (galena and sphalerite) should not be considered a proxy for laboratory analysis. Laboratory geochemical results are required to determine actual chemical compositions and grades of the visible sulphide mineralisation reported in this preliminary assessment. The Company will update the market when detailed evaluation, sampling and analytical results become available upon completion of the drill program and when detailed logging would have been finalised.

A photo collage showing the geological and textural variability of observed drill core is presented in Figure 1 with observed mineralisation presented in Figure 2, parts 1 to 3.







Figure 2, Part 1: Geological, textural and alteration variability of logged geology showing (A): Dolomitic siltstone with sphalerite-filled veins at 328m; (B) open vugs with minor calcite infill in well sorted sandstone (324m)







Figure 3, Part 2: Geological, textural and alteration variability of logged geology showing: (C) Laminated shale (345m); (D) Partially vuggy dolomitic massive siltstone at 339m.







Figure 4, Part 3: Geological, textural and alteration variability of logged geology showing: (E) Galena-filled voids at 304m, and (F): Strong to intense iron-oxide alteration with complete obliteration of host rock. The alteration seems to mark a transition from vuggy dolomitic siltstone with patchy-carbonate infill to laminated shale with minor sandstone interbeds.





# pXRF results on selected sections.

A summary of pXRF results taken at random points through the observed core is presented in Table 1.

Reading #	Method Name	Depth/m	Mg ppm	P ppm	S ppm	Ca ppm	Fe ppm	Cu ppm	Zn ppm	As ppm	Mo ppm	Nd ppm	Pb ppm
1	Geochem(3-Beam)	300	108035	1453	3083	226592	7026	<lod< td=""><td>85</td><td>5</td><td><lod< td=""><td><lod< td=""><td>12</td></lod<></td></lod<></td></lod<>	85	5	<lod< td=""><td><lod< td=""><td>12</td></lod<></td></lod<>	<lod< td=""><td>12</td></lod<>	12
2	Geochem(3-Beam)	303.2	103108	3841	<b>248</b> 68	207977	3882	<lod< td=""><td>178</td><td>1074</td><td>12</td><td><lod< td=""><td>14153</td></lod<></td></lod<>	178	1074	12	<lod< td=""><td>14153</td></lod<>	14153
3	Geochem(3-Beam)	304.6	21973	43136	<b>3186</b> 2	108862	4025	<lod< td=""><td>75</td><td>123</td><td><lod< td=""><td><lod< td=""><td>2848</td></lod<></td></lod<></td></lod<>	75	123	<lod< td=""><td><lod< td=""><td>2848</td></lod<></td></lod<>	<lod< td=""><td>2848</td></lod<>	2848
4	Geochem(3-Beam)	310	18075	4016	<lod< td=""><td>450830</td><td>2428</td><td><lod< td=""><td>21</td><td><lod< td=""><td><lod< td=""><td></td><td>14</td></lod<></td></lod<></td></lod<></td></lod<>	450830	2428	<lod< td=""><td>21</td><td><lod< td=""><td><lod< td=""><td></td><td>14</td></lod<></td></lod<></td></lod<>	21	<lod< td=""><td><lod< td=""><td></td><td>14</td></lod<></td></lod<>	<lod< td=""><td></td><td>14</td></lod<>		14
5	Geochem(3-Beam)	315	20527	3226	<lod< td=""><td>498024</td><td>1527</td><td><lod< td=""><td>23</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td>9</td></lod<></td></lod<></td></lod<></td></lod<></td></lod<>	498024	1527	<lod< td=""><td>23</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td>9</td></lod<></td></lod<></td></lod<></td></lod<>	23	<lod< td=""><td><lod< td=""><td><lod< td=""><td>9</td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td>9</td></lod<></td></lod<>	<lod< td=""><td>9</td></lod<>	9
6	Geochem(3-Beam)	304	114349	3419	<mark>290</mark> 94	211950	1278	14	22	997	10	<lod< td=""><td>19076</td></lod<>	19076
7	Geochem(3-Beam)	306	116090	11745	<b>1</b> 0351	229419	2546	14	460	204	<lod< td=""><td><lod< td=""><td><mark>88</mark>75</td></lod<></td></lod<>	<lod< td=""><td><mark>88</mark>75</td></lod<>	<mark>88</mark> 75
8	Geochem(3-Beam)	332.7	104488	2085	1439	287874	1499	<lod< td=""><td>19</td><td><lod< td=""><td>8</td><td>446</td><td><lod< td=""></lod<></td></lod<></td></lod<>	19	<lod< td=""><td>8</td><td>446</td><td><lod< td=""></lod<></td></lod<>	8	446	<lod< td=""></lod<>
9	Geochem(3-Beam)	333	124353	4738	8795	231397	2396	<lod< td=""><td>6439</td><td>4</td><td><lod< td=""><td>532</td><td>5</td></lod<></td></lod<>	6439	4	<lod< td=""><td>532</td><td>5</td></lod<>	532	5
10	Geochem(3-Beam)	342.4	144545	1762	1255	232398	2305	<lod< td=""><td>24</td><td>8</td><td><lod< td=""><td>466</td><td>7</td></lod<></td></lod<>	24	8	<lod< td=""><td>466</td><td>7</td></lod<>	466	7
11	Geochem(3-Beam)	346.5	127704	10220	3839	236756	3901	<lod< td=""><td>26</td><td>12</td><td><lod< td=""><td><lod< td=""><td>22</td></lod<></td></lod<></td></lod<>	26	12	<lod< td=""><td><lod< td=""><td>22</td></lod<></td></lod<>	<lod< td=""><td>22</td></lod<>	22
12	Geochem(3-Beam)	336	128184	1442	1091	227647	1533	11	387	<lod< td=""><td><lod< td=""><td><lod< td=""><td><lod< td=""></lod<></td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td><lod< td=""></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""></lod<></td></lod<>	<lod< td=""></lod<>
13	Geochem(3-Beam)	334	68578	1260	7157	135342	944	<lod< td=""><td>37</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td><lod< td=""></lod<></td></lod<></td></lod<></td></lod<></td></lod<>	37	<lod< td=""><td><lod< td=""><td><lod< td=""><td><lod< td=""></lod<></td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td><lod< td=""></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""></lod<></td></lod<>	<lod< td=""></lod<>
14	Geochem(3-Beam)	345	129112	3443	1117	229261	2504	<lod< td=""><td>155</td><td><lod< td=""><td>10</td><td><lod< td=""><td>6</td></lod<></td></lod<></td></lod<>	155	<lod< td=""><td>10</td><td><lod< td=""><td>6</td></lod<></td></lod<>	10	<lod< td=""><td>6</td></lod<>	6
15	Geochem(3-Beam)	327	105442	2436	3943	186142	1312	<lod< td=""><td>35</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<></td></lod<></td></lod<>	35	<lod< td=""><td><lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<>	<lod< td=""><td>4</td></lod<>	4
16	Geochem(3-Beam)	344	44656	4552	289 <mark>6</mark> 3	102726	1827	<lod< td=""><td>25</td><td>5</td><td>10</td><td><lod< td=""><td>6</td></lod<></td></lod<>	25	5	10	<lod< td=""><td>6</td></lod<>	6
17	Geochem(3-Beam)	341	12697	<b>17</b> 230	46751	104334	23812	25	28	33	9	377	76
18	Geochem(3-Beam)	333.8	37952	<b>2933</b> 6	5548	180643	11771	36	<b>2</b> 027	<lod< td=""><td>11</td><td><lod< td=""><td>20</td></lod<></td></lod<>	11	<lod< td=""><td>20</td></lod<>	20
19	Geochem(3-Beam)	336.8	32062	10828	<mark>21</mark> 558	123826	20673	32	44	28	11	499	95
20	Geochem(3-Beam)	332	15213	18 <mark>987</mark>	<b>18</b> 972	129575	22145	36	235	20	<lod< td=""><td><lod< td=""><td>76</td></lod<></td></lod<>	<lod< td=""><td>76</td></lod<>	76
21	Geochem(3-Beam)	349.3	113101	1803	7358	218621	11430	<lod< td=""><td>91</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td>46</td></lod<></td></lod<></td></lod<></td></lod<>	91	<lod< td=""><td><lod< td=""><td><lod< td=""><td>46</td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td>46</td></lod<></td></lod<>	<lod< td=""><td>46</td></lod<>	46
22	Geochem(3-Beam)	351.4	55813	15942	<mark>20</mark> 589	169147	24780	25	273	12	12	402	146
23	Geochem(3-Beam)	350	79027	3585	<b>273</b> 05	161399	4353	11	822	9	<lod< td=""><td><lod< td=""><td>21</td></lod<></td></lod<>	<lod< td=""><td>21</td></lod<>	21
24	Geochem(3-Beam)	352	55045	4928	<b>16</b> 998	111904	4440	<lod< td=""><td>228</td><td>8</td><td>8</td><td><lod< td=""><td>11</td></lod<></td></lod<>	228	8	8	<lod< td=""><td>11</td></lod<>	11
25	Geochem(3-Beam)	349	39016	4825	<b>19</b> 547	90330	2473	9	55	<lod< td=""><td>6</td><td><lod< td=""><td>20</td></lod<></td></lod<>	6	<lod< td=""><td>20</td></lod<>	20
26	Geochem(3-Beam)	342	139205	1906	1280	238692	1676	<lod< td=""><td>44</td><td><lod< td=""><td><lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<></td></lod<></td></lod<>	44	<lod< td=""><td><lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<></td></lod<>	<lod< td=""><td><lod< td=""><td>4</td></lod<></td></lod<>	<lod< td=""><td>4</td></lod<>	4
27	Geochem(3-Beam)	351	104032	3947	4300	212734	5903	16	33	<lod< td=""><td>7</td><td><lod< td=""><td>80</td></lod<></td></lod<>	7	<lod< td=""><td>80</td></lod<>	80
28	Geochem(3-Beam)	348.7	117568	4082	<b>16</b> 843	233833	3847	27	476	4	7	<lod< td=""><td>14</td></lod<>	14
29	Geochem(3-Beam)	317	101888	19 <mark>233</mark>	2567	248969	4185	11	261	5	<lod< td=""><td>469</td><td>5</td></lod<>	469	5
30	Geochem(3-Beam)	313	93398	12961	266 <mark>6</mark> 4	231979	9437	47	840	9	7	<lod< td=""><td>12</td></lod<>	12
31	Geochem(3-Beam)	312	19159	<mark>260</mark> 28	41039	123522	22990	23	50	64	<lod< td=""><td><lod< td=""><td>63</td></lod<></td></lod<>	<lod< td=""><td>63</td></lod<>	63
32	Geochem(3-Beam)	348	32100	1756	47075	94482	1665	11	40	6	<lod< td=""><td>412</td><td>7</td></lod<>	412	7
33	Geochem(3-Beam)	314	98743	19 <mark>969</mark>	7847	228468	2666	<lod< td=""><td>43</td><td>9</td><td><lod< td=""><td><lod< td=""><td>11</td></lod<></td></lod<></td></lod<>	43	9	<lod< td=""><td><lod< td=""><td>11</td></lod<></td></lod<>	<lod< td=""><td>11</td></lod<>	11
34	Geochem(3-Beam)	334	139406	1228	3049	238584	948	10	130	<lod< td=""><td><lod< td=""><td>660</td><td><lod< td=""></lod<></td></lod<></td></lod<>	<lod< td=""><td>660</td><td><lod< td=""></lod<></td></lod<>	660	<lod< td=""></lod<>
36	Geochem(3-Beam)	340	37660	2214	3093	218778	3480	<lod< td=""><td>37</td><td><lod< td=""><td><lod< td=""><td>393</td><td>12</td></lod<></td></lod<></td></lod<>	37	<lod< td=""><td><lod< td=""><td>393</td><td>12</td></lod<></td></lod<>	<lod< td=""><td>393</td><td>12</td></lod<>	393	12

Table 1: pXRF results for selected elements of random spots within the logged core.

Note that data was not collected systematically down the hole but at random points based on alteration and geological variability.

The information in this report is based on visual inspection and random pXRF spot analysis and is believed to be reliable. However, pXRF results are just a chemical gauge of the actual metal content within the rock and should never be considered a proxy or substitute for actual laboratory analyses where reported concentrations or grades are a factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.





The results show highly anomalous lead, up to 1.9% Pb, anomalous Zinc with several spot readings in several hundred ppm, up to 6000ppm (0.6%). Arsenic (As) and Sulphur are also recorded in anomalous levels, especially the latter which is at least 1000ppm in all spot readings, up to 4.7% in some samples. The high concentration of sulphur (and arsenic) can be explained by sulphides roastings where the sulphur in pyrite is oxidised to sulphur dioxide and other metalloids such as arsenic, etc. Interaction of circulating groundwater with the newly generated sulphur dioxide forms a weak sulphuric acid, which is corrosive on rocks through water-rock interactions, leading to the selective removal of softer rocks and thus the vuggy textures noted in the logged core. The chemical assemblage noted from the preliminary pXRF readings pleasingly suggests that we are in an environment where sulphides are interacting with circulating groundwater.

Chemical classification of the logged geology on the Al-Zr-Ti classification diagram of Garcia et al, 1994 and the SiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> – Fe<sub>2</sub>O<sub>3</sub>/K<sub>2</sub>O diagram of Herron, 1988, based on the preliminary pXRF results demonstrates the rocks are predominantly shales and sandstone (Figure 3). Considering that the hole depth is 350m+, it is possible these sedimentary rocks could be the top of the Proterozoic immediately below the Georgina Basin. Inca's previous drilling in other parts of the Frewena Project area intersected Proterozoic shales and dolomitic siltstones, like the lithologies currently being logged here. More information is required as drilling progresses to ascertain the geological domain of these rocks.

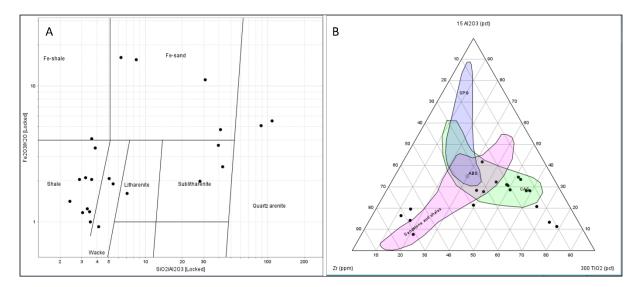


Figure 5: Geochemical characterisation of the Georgina Basin sediments on the  $SiO_2/Al_2O_3 - Fe_2O_3/K_2O$  terrigenous shales and sandstones diagram of Herron, 1988 (A) and the Al-Zr-Ti classification diagram of Garcia et al, 1994. Chemical classification demonstrates that lithologies are dominated by shales, wacke, and sandstones and could be indicative of the top of the Proterozoic immediately below the Georgina Basin.





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This announcement was authorised for release by the Board of Directors.

# Media Inquiries/Investor Relations - Nicholas Read, Read Corporate - 0419 929 046 Investor inquiries – Adam Taylor, Chairman - Inca Minerals – (08) 6263 4738

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# Competent Person's Statement

The information in this ASX announcement that relates to exploration activities for the Frewena Project in the NT, is based on information compiled by Dr Emmanuel Wembenyui BSc (Hons), MSc Applied Geology and PhD Geochemistry who is a Member of The Australasian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists, MAIG. He has sufficient experience, which is relevant to the exploration activities, style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Wembenyui is a fulltime employee of Inca Minerals Limited and consents to the announcement being issued in the form and context in which it appears.





# Appendix 1: JORC Compliancy Table

# JORC 2012 Compliancy Table

The following information is provided to comply with the JORC Code (2012) exploration reporting requirements.

**Section 1 Sampling Techniques and Data** 

**Criteria: Sampling techniques** 

### JORC CODE Explanation

Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or hand-held XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.

### **Company Commentary**

This announcement relates to the progress of drilling of drillhole FW230011 at the Alpaca Hill prospect, Frewena Fable in EL31974 within Inca Minerals Frewena Project in the Northern Territory. The exploration results contained here relate to logged geology and hand-held spot analyses of diamond core using a VANTA pXRF.

### **JORC CODE Explanation**

Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.

### **Company Commentary**

This announcement does not relate to samples that were collected and taken from site. All analyses were performed on diamond core at the drill site. Prior to spot analyses, the pXRF device was calibrated and test analyses conducted on certified reference materials to ensure that all recorded analytical data are both accurate and precise, a form of QAQC.

### **JORC CODE Explanation**

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 (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is a coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.

### **Company Commentary**

This announcement does not refer to samples that were collected for further analysis in a standard laboratory. However, all pXRF spot analyses were conducted on diamond core for muti-elements. Locations of spot analyses were determined by either visible mineralisation, change of rock type or alteration variability.

# **Criteria: Drilling techniques**

Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).

# **Company Commentary**

The drillhole reported in this announcement was drilled using Reverse Circulation (RC) method for up to 200m, then switching to HQ diamond drilling, and finally reducing to NQ in fresh competent rock. Hole diameter started at 5 <sup>3</sup>/<sub>4</sub> inch, progressively reducing to HQ and NQ core sizes with depth.





# **Criteria: Drill sample recovery**

### **JORC CODE Explanation**

Method of recording and assessing core and chip sample recoveries and results assessed.

### **Company Commentary**

This announcement refers to drillhole FW230011. All diamond core runs were measured by drillers using a tape and recorded in run books. Core recovery is generally 100%, sometimes reducing to about 70% when argillaceous material is washed away by drilling muds.

### **JORC CODE Explanation**

Measures taken to maximise sample recovery and ensure representative nature of the samples.

### **Company Commentary**

Diamond core recovery was generally 100% with occasional core losses where groundwater was encountered, which reduced sample sizes to about 70%. Material for spot analysis was not sampled, thus the measurement of recovery was unnecessary.

# **JORC CODE Explanation**

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.

### **Company Commentary**

Relationship between sample recovery and grade is not applicable for the drill core as it was not submitted for assay. For pXRF analyses, no relationship between sample recovery and grade was established as the pXRF analyses were based on small spots of drill core at a time.

### **Criteria: Logging**

### **JORC CODE Explanation**

Whether core and chip samples have been geologically and geo-technically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.

### **Company Commentary**

All reported drill core was logged by Company geologists to the standard level of geological detail to support mineral resource estimation, metallurgical and mining studies as required. Spot analyses were carried out on drill core that was geologically described in terms of rock type, alteration, colour, and visual evaluation of mineralisation.

# JORC CODE Explanation

Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography

### **Company Commentary**

Logging was both qualitative and quantitative. Qualitative data collection included recoding of lithology, texture, grain size, structure, weathering levels, alteration, veining, and any identified mineralisation. Quantitative measurements included recording of Magnetic Susceptibility readings using a KT-10 Meter and multi-elements using a pXRF.

### **JORC CODE Explanation**

The total length and percentage of the relevant intersections logged.



### **Company Commentary**

The reported hole was geologically logged to the hole depth at the time of reporting.

**Criteria:** Sub-sampling techniques and sample preparation

### **JORC CODE Explanation**

If core, whether cut or sawn and whether quarter, half or all core taken.

#### **Company Commentary**

The reported drill core went through preliminary assessment onsite and none was cut.

### **JORC CODE Explanation**

*If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* 

## **Company Commentary**

Only diamond core is mentioned in this announcement.

### JORC CODE Explanation

For all sample types, the nature, quality, and appropriateness of the sample preparation technique.

### **Company Commentary**

The announcement refers to diamond core from the Frewena Fable drilling, none of which were sampled. However, each spot that was analysed with a pXRF was washed down and dried prior to scanning.

# **JORC CODE Explanation**

Quality control procedures adopted for all sub-sampling stages to maximise "representivity" of samples.

### **Company Commentary**

The pXRF device used for the reported spot-analyses was calibrated using the device calibration procedures and Certified Reference Material (CRM) sourced from Ore Research and Exploration Pty Ltd (OREAS) were tested prior to commencing spot analyses to ensure that results obtained were both accurate and precise.

### JORC CODE Explanation

Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.

### **Company Commentary**

Best-practise measures were deployed to ensure the samples that were spot-analysed were representative of the drill core at those spots being analysed. Samples were inspected for contamination and any possible bias removed.

### **JORC CODE Explanation**

Whether sample sizes are appropriate to the grain size of the material being sampled.

# **Company Commentary**

Samples were spot-analysed at the drill site and thus consideration of sample sizes is not relevant for the type of preliminary analyses being done.





# Criteria: Quality of assay data and laboratory tests

### **JORC CODE Explanation**

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

### **Company Commentary**

No laboratory assays are referred to in this announcement. All reported analyses were verified in the field using a pXRF device. The pXRF device used for the reported spot-analyses was calibrated using the device calibration procedures and Certified Reference Material (CRM) sourced from Ore Research and Exploration Pty Ltd (OREAS) were tested prior to commencing analyses to ensure that results obtained were both accurate and precise.

### **JORC CODE Explanation**

For geophysical tools, spectrometers, hand-held XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.

### **Company Commentary**

A pXRF **Olympus**, **Vanta VMR-CCC-Y**, **SN823169** analyser was used throughout these analyses. Geochem method 3, which uses 3 Xray beams was employed for the analyses and analyses were done for 10 seconds on each beam: giving a total of 30 seconds analytical time per sample. For Magnetic Susceptibility readings, a KT-10 meter was employed.

### **JORC CODE Explanation**

Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.

### **Company Commentary**

The pXRF device used for the reported spot-analyses was calibrated using the device calibration procedures and Certified Reference Material (CRM) sourced from Ore Research and Exploration Pty Ltd (OREAS) were tested prior to commencing orientation analyses to ensure that results obtained were both accurate and precise. Based on the repeatability of results of certified reference material, acceptable levels of accuracy were achieved, and no bias was noted. No external laboratory checks were completed for this program.

### Criteria: Verification of sampling and assaying

### **JORC CODE Explanation**

The verification of significant intersections by either independent or alternative company personnel.

### **Company Commentary**

Company personnel verified pXRF results and all procedures. No external laboratory checks were completed for this program.

# **JORC CODE Explanation**

The use of twinned holes.

### **Company Commentary**

No twin holes are involved in this announcement.

### **JORC CODE Explanation**

Documentation of primary data, data entry procedures, date verification, data storage (physical and electronic) protocols.





#### **Company Commentary**

All pXRF spot-analysis datafiles were recorded directly on a memory card within the pXRF device and downloaded straight onto company computers and laptops for QAQC validation to ensure data integrity. The validated datasets are backed up by Company geologists prior to being archived in an online SharePoint platform.

### **JORC CODE Explanation**

Discuss any adjustment to assay data.

### **Company Commentary**

No pXRF results reported in this announcement were adjusted.

### Criteria: Location of data points

### **JORC CODE Explanation**

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.

# **Company Commentary**

All pXRF analytical points were located using an inbuilt GPS device within the pXRF device. A Garmin handheld GPS was employed to locate the collar of the Frewena Fable hole, FW230011. Surveys, which involve the measurement of Azimuth and Dip were completed using a True North seeking Reflex Gyro Tool.

### **JORC CODE Explanation**

Specification of the grid system used.

**Company Commentary** 

# GDA94 / MGA zone 53

### **JORC CODE Explanation**

Quality and adequacy of topographic control.

### **Company Commentary**

FW230011 was located using a handheld Garmin GPS that provides adequate topographical control. In addition to this, the pXRF also has an inbuilt GPS that measures geographical coordinates.

Criteria: Data spacing and distribution

### **JORC CODE Explanation**

Data spacing for reporting of Exploration Results.

**Company Commentary** 

This is a first pass exploration program with no systematic hole spacing. FW230011 was set to target specific geophysical (gravity and magnetics) and geological features as a part of a regional reconnaissance program. pXRF sample locations were generated at random points on the core based on visible mineralisation, geological variability and alteration.





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.

# **Company Commentary**

This a first pass regional program targeting specific geological and geophysical anomalies to provide knowledge of regional mineralisation potential. Hole spacing for future mineral resource estimation is not applicable here.

# **JORC CODE Explanation**

Whether sample compositing has been applied.

### **Company Commentary**

No sampling for laboratory analysis was done. Thus, no sample composites are applicable here.

Criteria: Orientation of data in relation to geological structure

# **JORC CODE Explanation**

Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.

# **Company Commentary**

No structural measurements were taken on the areas surveyed with the pXRF. However, when detail logging is done, the diamond core will be oriented where possible and structures measured to provide unbiased knowledge of structural control on possible large scale IOCG and/or SEDEX mineralisation. Drillhole FW230011 is a reconnaissance hole designed to drill across geophysical (magnetic, gravity) anomalies as best as practically possible to provide an initial assessment of what the geophysical anomalies represent with assaying of the entire drill core to be undertaken.

# **JORC CODE Explanation**

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.

### **Company Commentary**

FW230011 was designed to generate diamond core samples that reflect no bias relative to possible large-scale IOCG and/or SEDEX mineralisation. The drillhole in this reconnaissance program at Frewena Fable is designed to drill across geophysical (magnetic, gravity) anomalies as best as practically possible to provide an initial assessment of what the geophysical anomalies represent with assaying and sampling of the entire Proterozoic drill core.

**Criteria:** Sample security

### **JORC CODE Explanation**

The measures taken to ensure sample security.

**Company Commentary** 

No samples were collected and taken away from site.

**Criteria:** Audits and reviews

# JORC CODE Explanation

The results of any audits or reviews of sampling techniques and data.





### **Company Commentary**

The pXRF datasets associated with this report have been subjected to stringent QAQC validation, review, and evaluation to ensure assays quality. The pXRF device used in the analysis passed all calibration tests and all CRM's measured were repeatable, a confirmation of data accuracy and precision.

### **Section 2 Reporting of Exploration Results**

# **Criteria:** Mineral tenement and land tenure status

### **JORC CODE Explanation**

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.

# **Company Commentary**

Tenement Type: EL 31974 (granted).

Ownership: For EL31974, Inca has the right to earn 90% via a JVA Agreement and Royalty Deed (1.5% NSR payable) with MRG and West.

### JORC CODE Explanation

The security of the land tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.

### **Company Commentary**

The exploration licences are in good standing at the time of writing.

Criteria: Exploration done by other parties

# **JORC CODE Explanation**

Acknowledgement and appraisal of exploration by other parties.

### **Company Commentary**

This announcement does not refer to results by other parties.

**Criteria:** Geology

# **JORC CODE Explanation**

Deposit type, geological setting, and style of mineralisation.

# **Company Commentary**

The geological setting of the area is that of Palaeozoic Georgina Basin that is regionally mapped as shales and limestones of varying thickness. Substantial geophysical surveying undertaken by Geoscience Australia, the Northern Territory Geological Survey, MinEx CRC, and by Inca Minerals Ltd, indicates that Proterozoic basement rocks occur at relatively shallow depths (~150m), with these lithologies considered prospective for IOCG, SEDEX, phosphate, and orogenic style mineral systems.

### Criteria: 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.

### **Company Commentary**

This announcement refers to drillhole FW230011. The drillhole parameters are as follows:

Easting: 521648 Northing: 7811199 Magnetic Azimuth: 240 Elevation or RL: 219 Dip: -60 Target hole depth: 700m

# JORC CODE Explanation

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.

# **Company Commentary**

N/A.

### **Criteria: Data aggregation methods**

### **JORC CODE Explanation**

In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations shown in detail.

### **Company Commentary**

No results that involved data aggregation methods are referred to in this announcement.

### **JORC CODE Explanation**

The assumptions used for any reporting of metal equivalent values should be clearly stated.

# **Company Commentary**

No metal equivalent values are referred to in this announcement.

Criteria: 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 (e.g. 'down hole length, true width not known.')

### **Company Commentary**

Only patchy drillhole mineralisation occurring as veins and vein-infills are reported in this announcement. Only drill assays on cut core will give an indication of mineralised intervals.

### **Criteria:** Diagrams

### **JORC CODE Explanation**

Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not limited to a plan view of drill hole collar locations and appropriate sectional views

### **Company Commentary**

The coordinates of FW230011 have been reported in this Table. Plan view of this drillhole has been reported in previous announcements.

## **Criteria:** Balanced reporting

### JORC CODE Explanation

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.

### **Company Commentary**

The Company believes the ASX announcement provides a balanced report of its exploration activities and results.

# **Criteria:** Other substantive exploration data

# JORC CODE Explanation

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.

### **Company Commentary**

No other data are required to be presented other than what has been reported in this announcement.

# Criteria: Further work

# JORC CODE Explanation

The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).

### **Company Commentary**

Drilling is required to test modelled gravity and magnetics isosurfaces for mineralisation at depth to determine if the geophysical anomalies identified on the surface vector to mineralisation at depth. Further drilling is also required to better understand the potential of the Frewena Fable gravity and magnetic anomalies within the broader Frewena Project area.





Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

# **Company Commentary**

No extension drilling is being planned but should there be success in FW230011, future drilling is likely to be planned to determine the geometry and size of any potential orebody at depth.

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