ASX ANNOUNCEMENT

14 August 2019 **ASX: G1A**

HIGH-GRADE RESULTS CONTINUE AS ABRA DRILLING COMPLETES

HIGHLIGHTS:

- **Abra's project development drilling program has successfully concluded with a total of 43 diamond core drill-holes (18,255 metres) completed between April and August 2019**
- **New drilling represents a 30%+ increase in total drilling associated with the Project**
- **High-grade assay results continue to be received, including the following from thirteen drill-holes (AB121-122 and AB124-AB134):**
    - **23.9m** at **10.3% lead** and **23g/t silver** in **AB128** incl.

      7.2m at **24.0% lead** and **55g/t silver**
    - **16.7m** at **6.4% lead** and **12g/t silver** in **AB129**
    - **13.7m** at **14.0% lead** and **26g/t silver** in **AB131**
    - **12.4m** at **8.2% lead** and **21g/t silver** in **AB127** incl.

      6.9m at **10.8% lead** and **27g/t silver**
    - **16.3m** at **7.5% lead** and **12g/t silver** in **AB127** incl.

      6.6m at **10.2% lead** and **15 g/t silver**
    - **4.1m** at **11.4% lead** and **21g/t silver** in **AB132A**
    - **3.2m** at **2.3% copper** in **AB127**
- **Additional assays are yet to be received from the final 13 drill-holes – when these are received a revised Mineral Resource estimatation will be completed**

GALENA MINING LTD. ("**Galena**" or the "**Company**") **(ASX: G1A)** announces the successful conclusion of its 2019 project development drilling program at its Abra Base Metals Deposit ("**Abra**" or the "**Project**") with additional high-grade assay results returned.

Managing Director, Alex Molyneux commented, ***"Our largest drill program to date continues to successfully delineate additional high-grade lead and silver intersections at much higher density in the upper northwestern area of Abra. This will enable us to complete an updated Mineral Resource estimate with a higher confidence, supporting our target to convert Resources to Ore Reserves and continue to optimise our mine model."***

Managing Director, Alex Molyneux went on to say, ***"With these assays, we once again intersected material copper mineralisation (3.2m at 2.3% copper) so we're increasingly studying the potential nature and scale of the copper-gold zone at Abra. We also saw our highest grade ever significant silver intersection with 457g/t over almost five metres in hole AB121."***

2019 PROJECT DEVELOPMENT DRILLING PROGRAM

Galena has completed 43 drill-holes (AB103 to AB143, AB131W and AB135W) for 18,255 cumulative linear metres of drilling in the 2019 Project Development Drilling Program. Assays have been received for holes AB103 to AB131, AB131W, AB135W, AB136 to AB143. Assays have also been received for ABGT002, a hole drilled for geotechnical evaluation purposes. Further assays for AB131W AB135W and AB135 to AB143 remain pending at this time.

The 2019 Abra Project Development Drilling Program had three primary objectives:

(i) to infill Inferred Resources on the northwestern area of the December 2018 Resource to upgrade that relatively shallower mineralisation to the Indicated category;

(ii) further infill drilling of the first years production to a closer drill spacing to enhance mine design and scheduling associated with short to medium term production planning; and

(iii) to further infill drill current Indicated Mineral Resources within the first 3 years planned production areas for medium to long term optimisation and planning.

Now that 2019 drilling is complete an updated Mineral Resource Estimate will commence immediately upon receipt of the remaining assays and planned for completion late-2019.

Considering results to date, Galena believes not only has the drilling program met its objectives but in general the results are considered very positive in terms of individual grades and thicknesses of the drill data in direct comparison to the drill data used in the December 2018 Resource.

NEW DRILL HOLE ASSAYS

Additional assays being reported in this release are for the most recent thirteen holes received (AB121, AB122, AB124 to AB134) and are graphically represented in Figures 1, 3 and 4 and detailed in Appendix 1, together with drill collar locations in Appendix 2. Assays from drill-holes AB103 to AB120, AB123 were previously reported (*see Galena ASX releases of 5 June 2019 and 19 July 2019*). Assays remain pending for drill-holes AB135 to AB143, AB131W and AB135W.

The drilling results reported are primarily from infill drilling of the upper northwestern sector of Abra within the footprint of the first three years planned production. Drilling is designed to assist in project de-risking and for mine design and planning purposes.

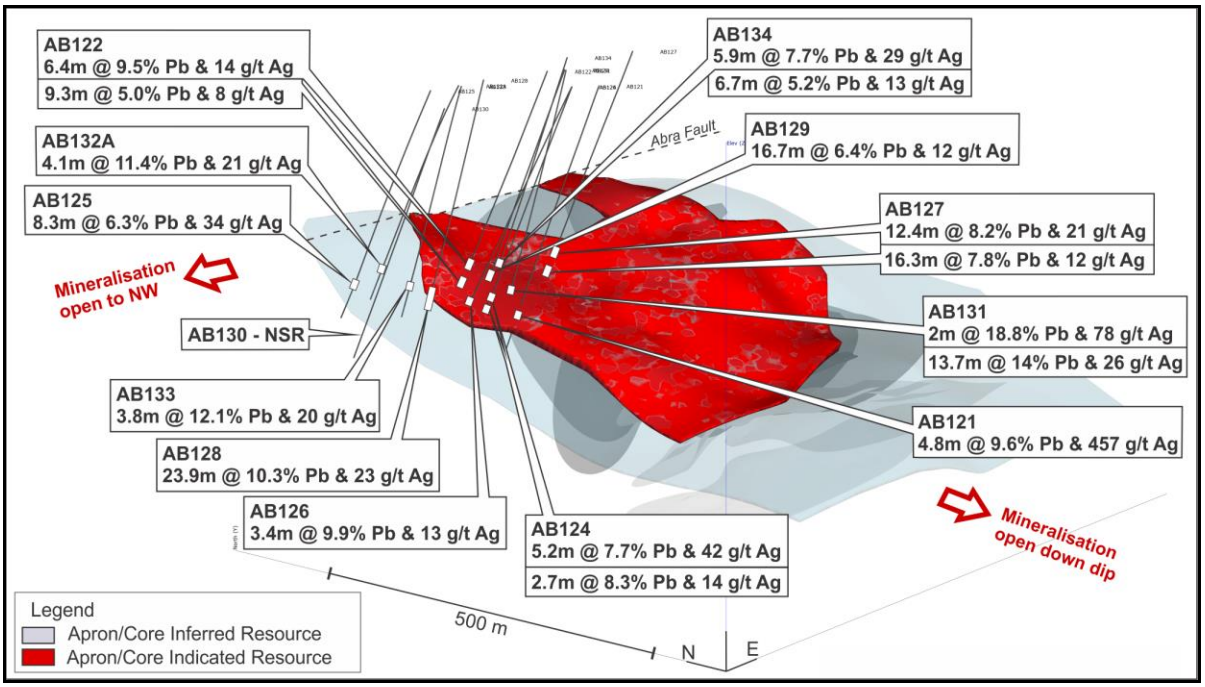


Figure 1: 3D model of December 2018 Resource (5% lead cut-off wireframes) looking obliquely north east, with new drill-holes AB121, AB122, AB124 – AB134 overlain

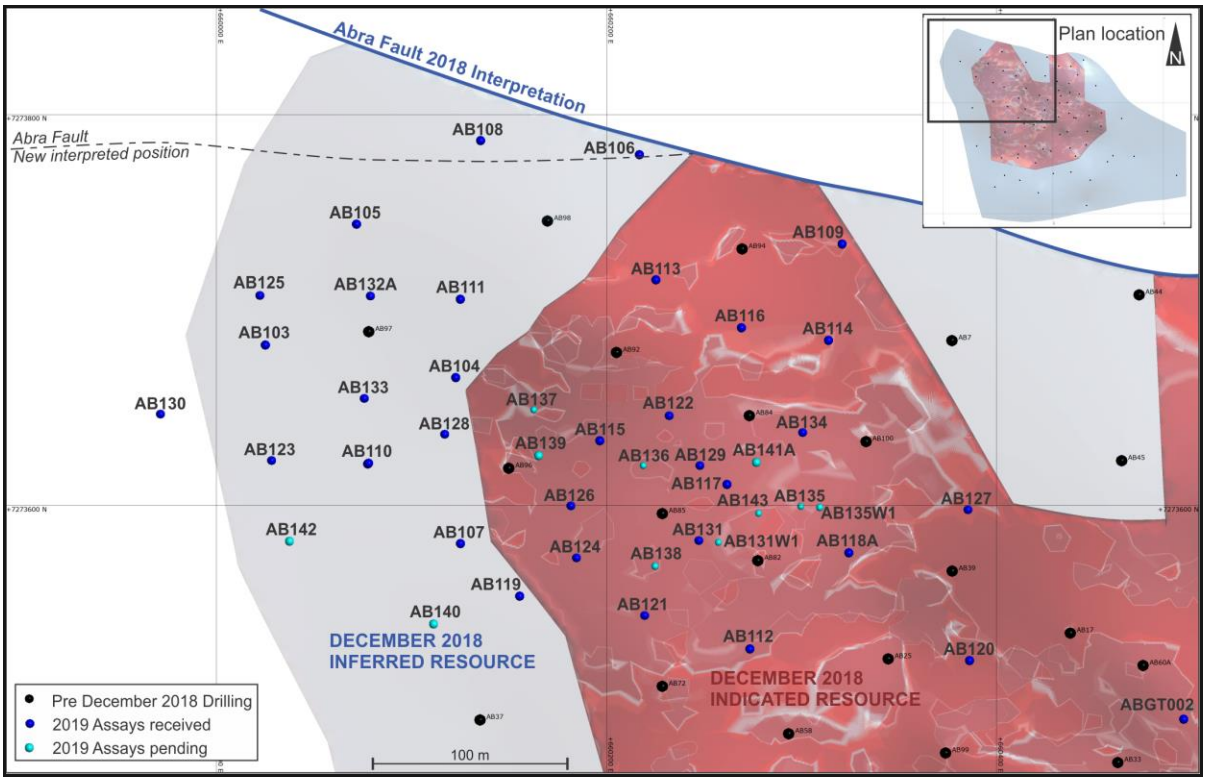


Figure 2: Plan view of the northwestern area of the December 2018 Resource Apron Zone showing drill-hole pierce point positions

Figure 3 shows a plan view of the 102 Lode with drilling results for the 2019 drilling program. Better results from these batches of assays include:

- **23.9m** at **10.3% lead** and **23g/t silver** in **AB128** incl.
  7.2m at **24.0% lead** and **55g/t silver**
- **12.4m** at **8.2% lead** and **21g/t silver** in **AB127** incl.
  6.9m at **10.8% lead** and **27g/t silver**
- **4.1m** at **11.4% lead** and **21g/t silver** in **AB132A**
- **4.8m** at **9.6% lead** and **457g/t silver** in **AB121**
- **8.3m** at **6.3% lead** and **34g/t silver** in **AB124**
- **4.0m** at **7.8% lead** and **29g/t silver** in **AB134**

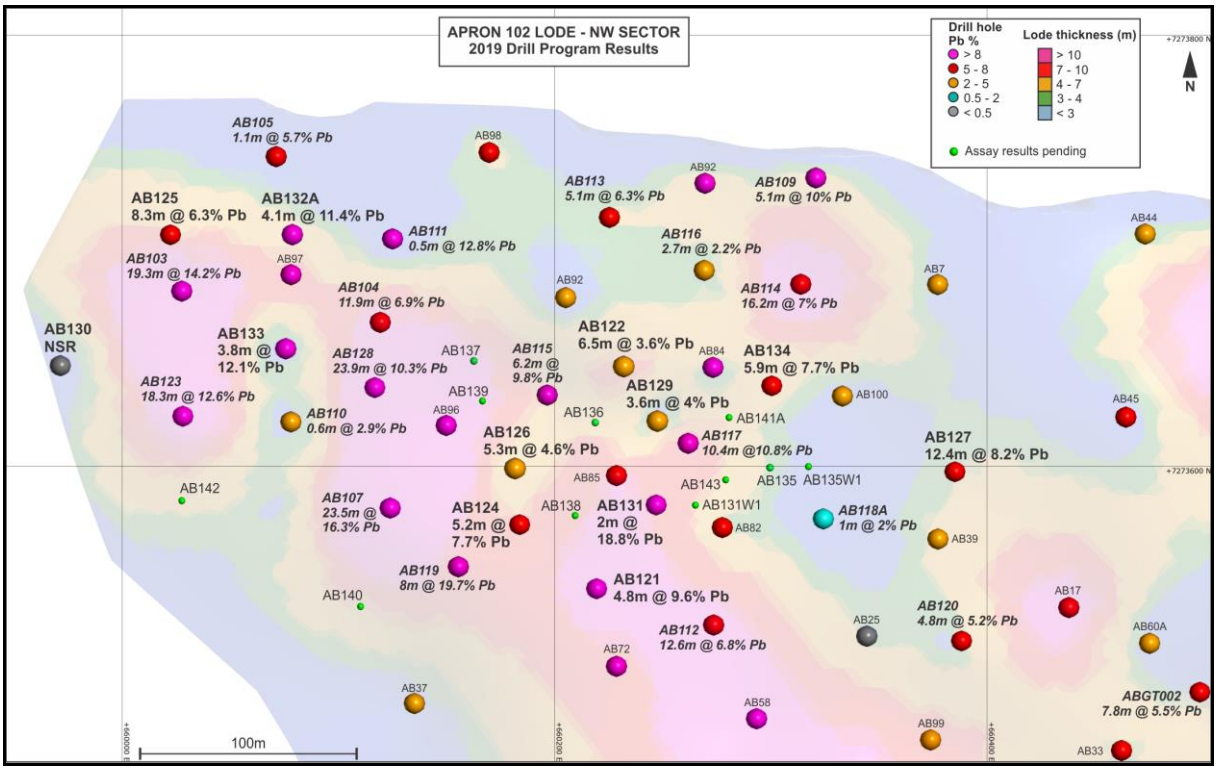


Figure 3: Plan view of the Apron 102 Lode showing drillhole pierce points (coloured by lead grade) and lode thickness contours

Figure 4 shows a plan view of the 101 Lode with drilling results for the 2019 drilling program. Better results from these batches of assays include:

- **16.7m** at **6.4% lead** and **12g/t silver** in **AB129**
- **13.7m** at **14.0% lead** and **26g/t silver** in **AB131**
- **6.4m** at **9.5% lead** and **14g/t silver** in **AB122**
- **3.4m** at **9.9% lead** and **13g/t silver** in **AB126**

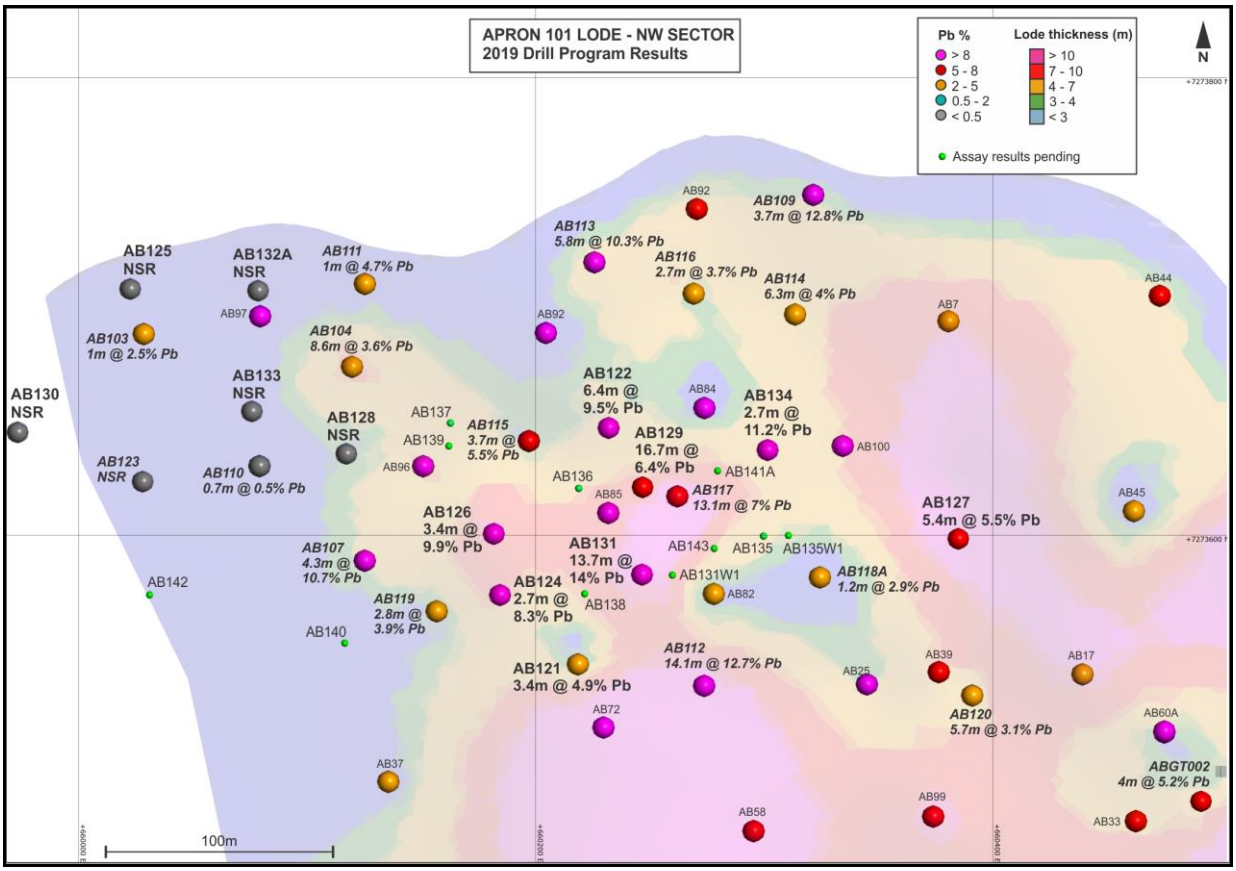


Figure 4: Plan view of the Apron 101 Lode showing drillhole pierce points (coloured by lead grade) and lode thickness contours.

The 2019 project development drilling program has been primarily focussed on the stratiform 'Apron Zone' mineralisation. However, AB127 intersected the 'Core Zone' when it occurred immediately beneath the Apron Zone. This hole returned broad zones of high grade lead-silver vein style mineralisation as well as material copper mineralisation including:

- **16.7m** at **6.4% lead** and **12g/t silver**, and
- **3.2m at 2.3% copper**

Presently much of the Core Zone is classified as an Inferred Resource, primarily due to a its complexity, depth and lack of sufficient drilling coverage. The Core Zone is planned to be drilled more from underground drilling positions once development access is complete in 2020.

Galena Mining Ltd.,

Alex Molyneux
Managing Director

Competent Person's statement

The information in this report related to the Abra Ore Reserve estimate is based on work completed by Mr Roger Bryant, BEng (Mining, Member AUSIMM). Mr Bryant is an employee of Galena Mining Ltd. Mr Bryant has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Bryant consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report related to the December 2018 Resource estimate is based on work completed by Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining and Mr Mark Drabble B.App.Sci. (Geology), MAIG, MAusIMM, Principal Consultant at Optiro Pty Ltd. Mr Maclean was responsible for data review, QAQC, and development of the geological model. Mr Drabble was responsible for resource estimation, classification and reporting. Mr Maclean and Mr Drabble have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Maclean and Mr Drabble consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report to which this statement is attached that relates to exploration results and drilling data is based upon information compiled by Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining. Mr Maclean has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Maclean consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Forward-looking statements

The contents of this announcement reflect various technical and economic conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly over relatively short periods of time. Consequently, actual results may vary from those in this announcement.

Some statements in this announcement regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "Scheduled", "intends", "anticipates, "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions.

Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should

not be relied on as guarantee of future performance. Forward-looking statement may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So there can be no assurance that actual outcomes will not materially differ from these forward-looking statements.

About Abra Base Metals Project

86.67% owned by Galena, the Abra Base Metals Project ("**Abra**" or the "**Project**") is a globally significant lead-silver project located in the Gascoyne region of Western Australia (between the towns of Newman and Meekatharra, approximately 110 kilometres from Sandfire's DeGrussa Project).

Galena completed an outstanding definitive / bankable feasibility study ("**FS**") (*see Galena ASX announcement of 22 July 2019*) for development of a mine and processing facility with a 16-year life producing a high-value, high-grade lead-silver concentrate containing approximately 95kt of lead and 805koz of silver per year after ramp-up. Based on a pre-development capital expenditure estimate of A$170 million, the FS modelled a pre-tax net present value for Abra (at an 8% discount rate) of A$553 million and an internal rate of return of 39%.[1]

Note: 1. Information relating to the production target and financial information derived from the production target is extracted from the ASX announcement of 22 July 2019. Galena confirms that that all material assumptions underpinning the production target, or forecast financial information derived from a production target, in that announcement continue to apply and have not materially changed.

Abra JORC Mineral Resource estimate[1, 2]

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Measured	-	-	-
Indicated	15.0	8.7	22
Inferred	22.4	6.7	15
Total	37.4	7.5	18

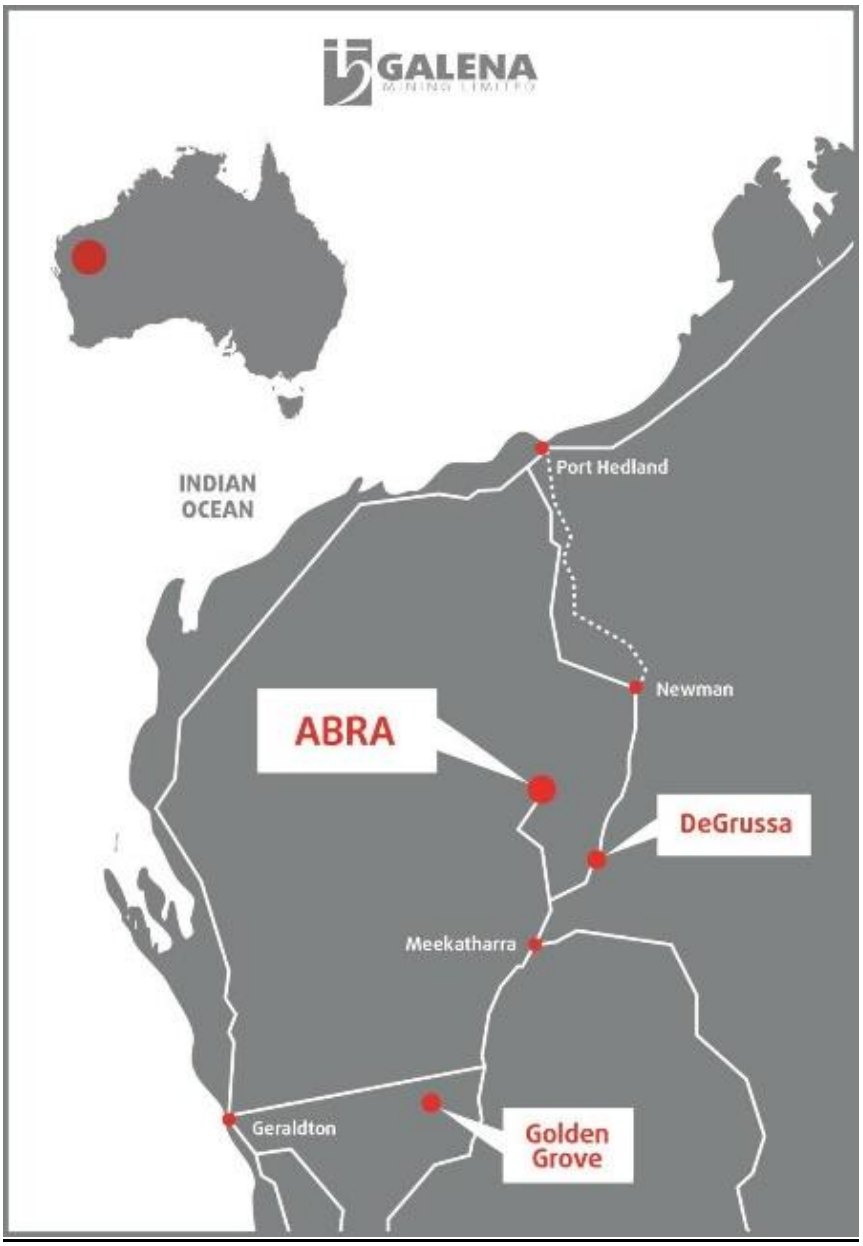
Notes: 1. See Galena ASX announcement of 18 December 2018. Galena confirms that it not aware of any new information or data that materially affects the information included in Galena's ASX announcement of 18 December 2018 and confirms that all material assumptions and technical parameters underpinning the resource estimates continue to apply and have not materially changed. 2. Calculated using ordinary kriging method and a 5.0% lead cut-off grade. Tonnages are rounded to the nearest 100,000t, lead grades to one decimal place and silver to the nearest gram. Rounding errors may occur when using the above figures.

Abra JORC Ore Reserve statement[1, 2]

Reserve classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Proved	-	-	-
Probable	10.3	8.8	24
Total	10.3	8.8	24

Notes: 1. See Galena ASX announcement of 18 December 2018. Galena confirms that it not aware of any new information or data that materially affects the information included in Galena's ASX announcement of 18 December 2018 and confirms that all material assumptions and technical parameters underpinning the ore reserve estimates continue to apply and have not materially changed. 2. Tonnages are rounded to the nearest 100,000t, lead grades to one decimal place and silver to the nearest gram. Rounding errors may occur when using the above figures.

Abra location



Geological model

Abra lies within sediments of the Proterozoic Edmund Group. Abra is a base metal replacement-style deposit hosted by sediments. The primary economic metal is lead. Silver, copper, zinc and gold are also present but are of lower tenor.

The deposit can be divided into two main parts. The upper "**Apron Zone**" comprises stratiform massive and disseminated lead sulphides (galena) and minor copper sulphides (chalcopyrite) within a highly altered sequence of clastic and dolomitic sediments. Alteration products include jaspilitic rich sediments (the "Red Zone") and a distinctive stratiform zone of hematite-magnetite alteration (the "Black Zone"). The Apron Zone extends for 1,000 metres along strike, 800 metres down dip and dips gently south.

The "**Core Zone**" underlies the Apron Zone and comprises an elongate funnel shaped body of hydrothermal breccias, veining and intense alteration overprinting gently south dipping sediments. The veining and breccia zones in the Core Zone form a feeder style flower shaped geometry in cross section. Hydrothermal veining dips moderately south on the northern flank, sub-vertically in the central parts and gently to the north on the southern margins. High-grade lead sulphide mineralisation is predominantly hosted in intensely veined zones. High-grade zinc sulphide mineralisation (sphalerite) is found in the central parts of the Core Zone. Copper (chalcopyrite) and gold mineralisation is sporadically found throughout the upper parts of the Core Zone but forms a semi-coherent body at the base of Core Zone. The Core Zone extends from 300 metres to 750 metres below surface and can be traced for 400 metres along strike.

Figure 5 (below) shows a stylised cross-section of Abra along with regional stratigraphy and main zones of interest.

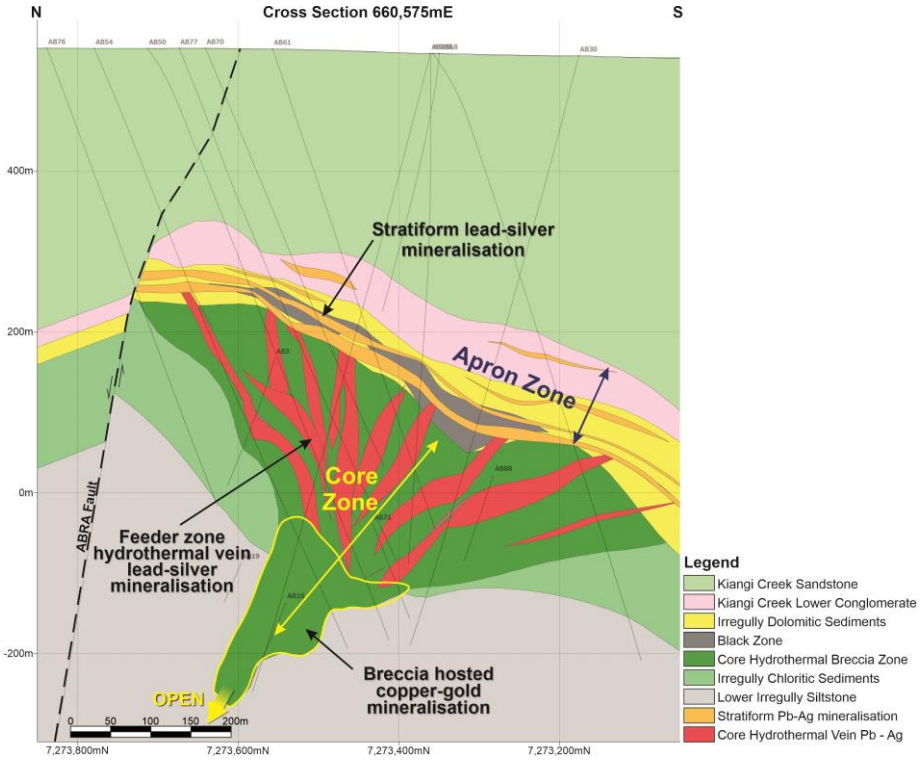


Figure 5: Stylised geological cross section of Abra at 660,575mE looking eas

APPENDIX 1 – GALENA MINING DETAILS OF ASSAY RESULTS (11 August 2019)

Minimum lead intersection: 4m at 5.0% lead. Maximum internal dilution: 4m at <5.0% lead. Minimum copper intersection: 2m at 1.0% copper. Minimum gold intersection: 2m at 1.0ppm gold. N.B. lower grade intersections reported for major lodes for transparency.

HOLE ID	FROM	TO	INTERVAL (m)	GRADE Pb (%)	GRADE Ag (ppm)	GRADE Cu (%)	Comment
AB121	383.6	388.4	4.8	9.6	457		Apron 102 Lode
AB121	405.2	408.6	3.4	4.9	21		Apron 101 Lode
AB122	342.0	348.5	6.5	3.6	19		Apron 102 Lode
AB122	361.3	367.7	6.4	9.5	14		Apron 101 Lode
AB122	378.9	388.2	9.3	5.0	8		Core Zone
AB124	378.0	383.2	5.2	7.7	42		Apron 102 Lode
AB124	399.4	402.1	2.7	8.3	14		Apron 101 Lode
AB125	348.0	356.3	8.3	6.3	34		Apron 102 Lode
AB126	382.3	388.6	5.3	4.6	38		Apron 102 Lode
AB126	403.1	406.5	3.4	9.9	13		Apron 101 Lode
AB127	341.6	354.1	12.4	8.2	21		Apron 102 Lode
AB127	341.6	347.7	6.9	10.8	27		Apron 102 Lode
AB127	369.6	375.1	5.4	5.5	10		Apron 101 Lode
AB127	386.8	403.1	16.3	7.5	12		Core Zone
AB127	387.4	394.0	6.6	10.2	15		Core Zone
AB127	423.2	426.5	3.2			2.3	Core Zone
AB128	357.2	379.3	23.9	10.3	23		Apron 102+101 Lode
AB128	357.2	364.4	7.2	24.0	55		Apron 102+101 Lode
AB129	367.4	371.0	3.6	4.0	11		Apron 102 Lode
AB129	381.3	398.0	16.7	6.4	12		Apron 101 Lode
AB129	382.0	386.6	4.7	11.9	21		Apron 101 Lode
AB130	NSR						
AB131	357.1	359.1	2.0	18.8	78		Apron 102 Lode
AB131	367.1	380.9	13.7	14.0	26		Apron 101 Lode
AB132A	353.1	357.2	4.1	11.4	21		Apron 102 Lode
AB133	363.3	367.1	3.8	12.1	20		Apron 102 Lode
AB134	320.1	326.0	4.0	7.8	29		Apron 102 Lode
AB134	332.8	339.5	4.5	6.5	13		Apron 102 Lode
AB134	366.1	370.0	3.9	9.6	25		Apron 101 Lode

APPENDIX 2 – GALENA MINING 2019 COMPLETED DIAMOND CORE DRILL-HOLES AS AT 11 August 2019: COLLAR LOCATIONS AND DIRECTION DETAILS

Hole ID	Easting	Northing	Azimuth	Dip	Depth
AB103	660025	7273563	360	70	418
AB104	660125	7273548	360	70	424
AB105	660075	7273631	360	70	370
AB106	660225	7273679	360	72	376.3
AB107	660125	7273428	360	70	457.1
AB108	660125	7273675	360	68	320.1
AB109	660326	7273622	360	68	364.8
AB110	660075	7273504	360	70	493.1
AB111	660129	7273596	360	68	400
AB112	660285	7273384	360	68	496.3
AB113	660225	7273612	360	68	391
AB114	660325	7273577	360	70	427.1
AB115	660200	7273500	360	70	421.6
AB116	660276	7273580	360	70	373.1
AB117	660275	7273488	360	70	427
AB118A	660335	7273459	355	73	511.3
AB119	660160	7273422	360	70	472
AB120	660387	7273378	360	68	478
AB121	660225	7273401	360	68	496
AB122	660225	7273503	360	67	448
AB123	660028	7273479	360	68	445.2
AB124	660192	7273429	360	68	439
AB125	660025	7273566	356	-66	431.7
AB126	660192	7273429	357	-64	438.1
AB127	660389	7273482	360	68	474.8
AB128	660125	7273548	356	-76	420.2
AB129	660250	7273488	356	-68	444.9
AB130	659975	7273500	356	-69	463.9
AB131	660250	7273486	356	-74	442
AB131W1	660245	7273529	003	-74	241.3
AB132A	660075	7273550	356	-64	408.9
AB133	660075	7273545	356	-73	405.7
AB134	660300	7273519	356	-71	439.1
AB135	660300	7273519	356	-78	429
AB135W1	660300	7273519	356	-78	242
AB136	660221	7273442	356	-62	444.6
AB137	660175	7273511	356	-68	442.5
AB138	660221	7273442	356	-70	427
AB139	660175	7273511	356	-72	419.7
AB140	660075	7273405	010	-73	472
AB141A	660275	7273488	356	-68	448
AB142	660025	7273474	356	-78	456.2
AB143	660275	7273486	356	-74	414.6

APPENDIX 3 – JORC CODE, 2012 EDITION: TABLE 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.* *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.*	Mineralised intervals were diamond drilled using NQ2 diameter core, geologically logged, photographed, cut and then ½ core samples were submitted to the laboratory for analysis. Samples were oven dried, crushed, pulverised and analysed for base metals using XRF with a lithium metaborate / tetraborate flux. Gold was assayed by fire assay using a 25 g, 30 g or 50 g charge. Sample intervals were based upon geological logging and ranged from 0.5 to 1.6m. Galena's sampling generally used 1m intervals. Sampling was continuous throughout the mineralised intervals with the right-hand side of the core taken. The sampling methodology is considered to be representative and appropriate for the style of mineralisation at Abra (poly-metallic lead-zinc-silver-copper-gold).
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*	Most holes were diamond drilled from surface to minimise hole deviation using HQ diameter and reduced to NQ2 diameter at between 80 and 200m depth. Diamond drilling was by wireline methods. Completed hole depths range from 350 to 955 m. Galena's 2017 - 2019 drilling was systematically oriented using either a Reflex ACT Mk.3TM or TrueCoreTM core orientation system. The bottom of hole line was marked on the core as a reference for structural measurements. Only reliable core

Criteria	JORC Code explanation	Commentary
	so, by what method, etc).	orientations were used for obtaining structural measurements.
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 diamond core was measured/recorded for drilling recovery by Galena staff. Overall core recovery is excellent due to the silicified and competent nature of the rock with core recoveries typically being 100%. No grade versus recovery sample biases due to loss or gain of material has been identified.
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.*	All drill core was logged geologically and geotechnically in detail sufficient to support the Mineral Resource estimate, mining and metallurgical studies. Logging included lithology, texture, veining, grain size, structure, alteration, hardness, fracture density, RQD, alteration and, mineralisation Core logging was both qualitative and quantitative. Lithological observations were qualitative. All geotechnical observations and core photographs were quantitative. 100% of all core which included all mineralised intervals was logged. All core was photographed both wet and dry.
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.*	All holes were routinely sampled as half cut NQ2 core for assaying. N/A All core was appropriately orientated and marked up for sampling by company geologists prior to core cutting. Sample widths range from 0.5m to 3.0m. Galena's sampling was generally in 1m intervals whereas its predecessors were generally 2m intervals. Half core samples were submitted to the commercial laboratories in Perth laboratory for analysis. Sample preparation comprised industry standard oven drying, crushing, and pulverisation to less than 75 microns.

Criteria	JORC Code explanation	Commentary
		Homogenised pulp material was used for assaying.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Blank samples were routinely dispatched to the laboratory to monitor sample preparation. These generally performed within acceptable tolerances. However elevated lead values were returned from some blanks which is thought to either represent cross sample contamination (i.e. soft lead caking the sample preparation bowl) or issues with the high lead values on the AAS plasma. From hole AB78 onwards barren flushes were carried out after each sample in sample preparation. The magnitude of the elevated values is not considered to be a material issue on the lead value estimates in the resource estimate.
	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 *Whether sample sizes are appropriate to the grain size of the material being sampled.*	In Galena's 2017 to 2019 drill program duplicates of crushed core (proxy for a field duplicate) were routinely assayed. Results showed an excellent correlation demonstrating a high level of repeatability. Sample sizes were typically 3 to 6 kg (depending on the length of the sample) and are considered appropriate to the fine – medium grained grain size common in the host rock and galena mineralisation at percent grades.
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.*	Galena's samples were analysed by SGS Laboratories in Perth. An ore grade 4-acid digest was used followed by an ICP-AES finish. From hole AB84 samples were analysed using XRF with a platinum crucible using a lithium metaborate / tetraborate flux. Gold was by fire assay with a 50g charge.. The analysis methods used are considered to approach total dissolution thus reporting total assay values and are appropriate for the style and tenor of mineralisation at Abra.
	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.	Blanks, certified standards and duplicates were regularly submitted to the assaying laboratory and monitored. Galena completed umpire assaying by an alternate laboratory with results returned consistent with the primary samples. The QAQC data indicates that assaying data accuracy and precision is of an appropriate quality for resource estimation work.
	Nature of quality control	Galena quality control procedures include the following:

Criteria	JORC Code explanation	Commentary
	procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	**Blank samples** – submitted at selected points within mineralised intersections at a nominal rate of 2 per 100 samples. The blank material is Bunbury basalt certified as a blank. **Reference Standard samples** – submitted at a rate of 1 in 20 in sequence with the original core samples. Three different certified standards are being used. **Duplicates** – to be routinely taken by the laboratory at a rate of 1 in 20 through a second split of the crushed core. They were submitted with the next sample number after the primary sample as part of a continuous sample stream. These are considered as true duplicates and can be used for assessing laboratory precision.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	All significant intersections are verified by alternative company geologists.
	The use of twinned holes.	Due to the depth to mineralisation no twinned holes have been attempted yet.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	During Galena's 2017- 2019 drilling program geological logging and sampling data was firstly recorded on either paper or in a Toughbook computer according to then entered into an electronic Excel and Access database files onsite. Electronic copies are backed up onsite and routinely transferred to the Perth head office. All paper documents are scanned onsite and electronic copies kept. Duplicates of the data are kept in Perth office after validation. Assay data was imported and merged directly from lab digital files in excel then later uploaded in an Access Database. All data has recently been migrated to a DatashedTM database to ensure data integrity. Galena used LogChiefTM for logging and sampling for the 2018-2019 drill programs.
	Discuss any adjustment to assay data.	There were no adjustments made to 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.*	Down hole surveys are completed every 15-30m during the drilling using using a north seeking gyro. Holes were then later gyro surveyed by ABIMS using a north seeking gyro. Drill holes were set out using a handheld GPS and then are later picked up with differential GPS. Galt Mining Solutions completed A Real Time Kinematic (RTK) GPS pickup of drill hole collars to enhance the precision of the survey, providing centimetre-level accuracy. A Department of Land Administration (DOLA) State Survey Mark (SSM) was used for the base station, the coordinates are provided in GDA94 using vertical datum AHD71.
	Specification of the grid system used.	Data captured in Map Grid of Australia GDA 94, Zone 50.
	Quality and adequacy of topographic control.	The RL of previous drill collars was measured by both DGPS surveys to an accuracy of 0.02m which gives us with a satisfactory control over the topography.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	The footprint of the Abra deposit extends 1,000m east-west along strike and 800m north south. Drill spacing ranges from 150m spaced centres on the periphery to 100 and 50m spacing in the central parts of the deposit. In some areas drill spacing is close to 50m by 25m. The deposit lies between 250m and 700 m below surface. Drill holes in the current round of drilling is infill drilling and will improve the spacing to approximately 70 by 70m to 50m x 50m. Data spacing is sufficient to establish geological and grade continuity to establish a mineral resource estimate. No sample compositing has been applied.
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 mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The mineralisation in the Apron Zone consists of tabular shallow south dipping zones can be drilled from north or south with high intersection angles. The Core zone has steeply dipping structures that trend east-west. The majority of drill holes are oriented to the south to sample most of the identified structures in the Core Zone an unbiased manner. Approximately 40 early drillholes were drilled oriented towards the north, which is sub-parallel to some of the mineralised structures in the Core breccia zone. The Apron Zone is not considered to have any sample bias issues due to the high intersection angles of all the drilling. By virtue of is nature as a feeder zone to the Apron mineralisation, the Core Zone has drilling at low intersection angles to the mineralised structures. It is not considered that there is a sampling bias.
Sample security	*The measures taken to ensure sample security.*	All sampled core will be transmitted from site to Perth assay laboratories either by company personnel or by courier. All remaining core is stored on site.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Mitchell River Group completed an audit of the geological database for data up to November 2018. This audit included review and documentation of sampling and geological data integrity. No issues have been identified Optiro carried out a review of the sampling and data collection processes during the site visit to Abra in 2018 and found that the protocols met industry standard with no material issues.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	· *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* · *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Abra Mining holds 100% interest in the Mulgul Project, consisting of Mining Lease M52/0776, Exploration Licence E52/1455, General Purpose Leases G52/292 and G52/286 and Miscellaneous Licence L52/021. A 3.0% Net Smelter Royalty exists over leases M52/0776 and E52/1455. Within the adjoining Jillawarra Project Abra Mining holds 100% of E52/1413, E52/3630 and E52/3575. All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No mining agreement has been negotiated.
Exploration done by other parties	· *Acknowledgment and appraisal of exploration by other parties.*	Historical exploration commenced around the Abra deposit by Amoco Minerals in 1974 but failed to discover the Abra deposit when testing the significant magnetic anomaly associated with the mineralisation. Geopeko Limited entered into a JV with Amoco in 1980 and drilled the discovery hole in 1981. 8 diamond core holes (AB1-11) were drilled before takeover by North Limited which did not complete any exploration. In 1995 RGC Exploration joint ventured in and drilled another deep diamond core hole (AB22A) with a daughter hole wedged from it (AB22B). Both North and RGC were subject to takeovers and the tenement was relinquished in 1999. Old City Nominees Pty Ltd, a private company, the acquired the ground and subsequently vended the project into Abra Mining Limited (AML). Abra resumed drilling in 2005 and completed all holes between and including AB23-61. All diamond core drilling completed by all parties was completed to a high standard and contributed towards defining the extent and limits of the mineralization AML was subsequently taken over in 2011 by Chinese company Hunan Nonferrous Metals' Australian subsidiary, HNC Resources Pty Ltd (HNC), following a lengthy acquisition process. Two diamond holes were drilled in 2012 (AB60A and AB61) HNC divested the project in 2016. Galena Mining acquired the project in 2017 and floated on the ASX. The historic exploration work on the project is of a very high standard.

Criteria	JORC Code explanation	Commentary
Geology	· *Deposit type, geological setting and style of mineralisation.*	The Abra deposit lies within sediments of the Proterozoic Edmund Group. Abra is a base metal replacement-style deposit hosted by sediments. The primary economic metal is lead (Pb). Silver (Ag), copper (Cu), zinc (Zn) and gold (Au) are also present but are of much lower tenor. The deposit can be divided into two main parts. The upper "Apron" zone comprises stratiform massive and disseminated lead- sulphides (galena) and minor copper sulphides (chalcopyrite) within a highly altered sequence of clastic and dolomitic sediments. Alteration products include jaspilitic rich sediments (the "Red Zone") and a distinctive stratiform zone of hematite-magnetite alteration (the "Black Zone". The Apron zone extends for 1,000m along strike, 700m down dip and dips gently south. The "Core" zone underlies the Apron and comprises an elongate funnel shaped body of hydrothermal breccias, veining and intense alteration overprinting gently south dipping sediments. The veining and breccia zones in the Core form a feeder style flower shaped geometry in cross section. Hydrothermal veining dips moderately south on the northern flank, sub-vertically in the central parts and gently to the north on the southern margins. High grade lead sulphide mineralisation is predominantly hosted in intensely veined zones. High grade zinc sulphide mineralisation (sphalerite) is found in the central parts of the Core. Copper (chalcopyrite) and gold mineralisation is sporadically found throughout the upper parts of the Core zone but forms a semi-coherent body at the base of Core. The Core zone extends from 300 to 750m below surface and can be traced for 400m along strike.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*	Historic drill hole information has previously been reported and is included in a table within appendices of the Galena's IPO Prospectus, and for Galena's 2017 and 2018 drilling in ASX releases in 2017 and 2018. Coordinates, dip, depth and azimuth of Galena's 2019 completed holes are listed in Appendix 2.
	· *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*	

Criteria	JORC Code explanation	Commentary
	should clearly explain why this is the case.	
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.*	Significant intersections are calculated as weighted average means for downhole intervals greater than 4m@5% Pb. There was no cutting of high grades. Lower grade intersections reported for major lodes for transparency. A maximum internal dilution interval of 4m@ <5% Pb was applied. No metal equivalent calculations were made.
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').*	All intersection widths reported are downhole widths. The upper strata-bound mineralisation drill intercepts are interpreted as being close to true width ("Apron" mineralisation). The lower vein-hosted mineralisation has drill intercepts that, depending on drillhole orientation, may not be close to true width (true width not known) ("Core" mineralisation.
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.*	A plan is included in the report.

Criteria	JORC Code explanation	Commentary
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.*	The focus of this drilling program is convert Inferred Resources to Indicated Resources. All significant results are reported.
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.*	Galena has commenced various studies as part of its FS study program, including geotechnical, metallurgical and environmental studies. To date no major issues have been identified, Groundwater studies and test work has identified water sources suitable for processing water supplies
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.*	Further drilling is planned to support feasibility studies and the the planned development. Additional drilling is planned to: (1) Test the open northwestern margin of the deposit. (2) Infill drill areas within the first 3 years of project life to assist in mine design (3) Further close spaced infill drilling of the first years project life for detailed mine design work