ASX ANNOUNCEMENT

29 October 2018 **ASX: G1A**

ACTIVITIES REPORT FOR QUARTER ENDED 30 SEPTEMBER 2018

HIGHLIGHTS:

- **Excellent PFS completed for Abra Base Metals Project:**
  - **14-year mine life producing a high-value, high-grade lead-silver concentrate containing 91ktpa of lead and 760kozpa of silver after ramp-up**
  - **Outstanding economics, with pre-tax NPV of A$528M and IRR of 50%**
  - **Attractive cash costs among global primary lead producers of US$0.48/lb lead C1 direct cash cost of production**
- **Declaration of maiden JORC Ore Reserve of 10.5Mt Probable at 8.1% lead and 20g/t silver**
- **Appointment of high caliber Managing Director and CEO Alex Molyneux to spearhead development**
- **Clear pathway for rapid completion of permitting and other pre-development works – On track for 2019 construction commencement**
- **General Purpose Licence G52/292 granted to house processing facilities and camp**
- **Completion of 21 drill-holes for cumulative 11,645 linear metres of drilling complete at the end of the Quarter as part of the 2018 Resource Infill and Development Program**
- **High-grade mineralisation intersected in three drill-holes up to 150 metres outside the existing resource envelope in the shallower, north-west extension of the orebody – Deposit remains open**
- **Subsequent to the Quarter – Appointment of highly qualified and experienced mining engineer Anthony James to the Board to assist in development and production**

GALENA MINING LTD. ("**Galena**" or the "**Company**") **(ASX: G1A)** reports on its activities for the quarter ending 30 September 2018 (the "**Quarter**"), largely focused on advancing its wholly-owned Abra Base Metals Project ("**Abra**" or the "**Project**") located in the Gascoyne region of Western Australia, targeting commencement of construction in 2019.

ABRA BASE METALS PROJECT

Abra comprises the granted Mining Licence, M52/0776 and is surrounded by the Exploration Licence E52/1455. G52/292 was granted during the quarter. This is contiguous with M52/776 and also surrounded by E52/1455. This general purpose licence will house all processing infrastructure including the plant, tailings dam, site offices, as well as the mine camp.

Excellent pre-feasibility study

Galena completed and announced its highly anticipated pre-feasibility study ("**PFS**") for Abra (see Galena ASX announcement of 25 September 2018), with the outcomes considered excellent. Furthermore, the PFS outcomes largely exceeded or confirmed outcomes from the Scoping Study completed in the prior quarter (see Galena ASX announcement of 28 June 2018).

With regards to the PFS, Managing Director, Alex Molyneux commented, ***"Abra is one of the best base metals projects in the world in terms of high investment returns, low country risk, long life and market significance."***

The PFS envisages a 1.2 million tonne per annum (Mtpa) throughput rate over an initial approximately 14-year life, targeting high-grade lead-silver mineralisation ranging between 6.7-10.8% lead and 14.4-43.0g/t silver over the life of mine ("**LOM**"). The PFS combines an underground mining operation with a processing plant employing conventional milling and flotation. The production rate was selected after analysing different ore grades against practical underground mining rates and optimising the Project's future infrastructure, which is based on different capital cost and grade optimisation scenarios.

The PFS indicates post-ramp up steady-state production of concentrate containing approximately 91ktpa of lead and 760kozpa silver. Pre-production capital expenditure is estimated to be A$154 million (including contingency and owner's costs) and lead 'C1' direct cash cost of production of A$0.66/lb (US$0.48/lb). Using a lead price of US$0.95/lb and silver price of US$14.50/oz, together with an exchange rate of A$1=US$0.73, results in an estimated net present value ("**NPV**") of A$528 million (at an 8% discount rate) and an internal rate of return ("**IRR**") of 50%.

Abra is well located with the availability of key infrastructure and close access to water, public roads, existing mining operations and the towns of Meekatharra and Newman. Lead-silver concentrate will be transported by road to the port of Geraldton (or potentially Port Hedland) in the mid-west of Western Australia.

Abra is subject to an Indigenous Land Use Agreement with the Jidi Jidi Aboriginal Corporation, the relevant native title claimant group.

Key outcomes of the PFS are presented in Table 1 and Table 2 below.

Table 1: Key PFS outcomes – Production metrics

	Annual	LOM
Mill throughput[1]	1.2Mt	15.3Mt
Diluted mined ore grade:		
- Lead		7.7%
- Silver		20g/t
Life of mine ("**LOM**")		14-years
LOM recoveries:		
- Lead		96%
- Silver		96%
Production (metal in concentrate):		
- Lead	91kt	1.1Mt
- Silver	760koz	9.6Moz
High-value lead-silver concentrate grade:		
- Lead		75%
- Silver		220g/t

Notes: 1. 70% of the mining inventory material is included within Ore Reserves but the remainder is currently included in Inferred Resources.

Table 2: Key PFS outcomes – Capital investment, operating cost and project economics

	Annual	LOM
Capital investment assumptions		
Pre-production capital expenditure[1]		A$154M
Construction period		1.5 to 2.25-years
Operating cost		
Lead C1 direct cash cost of production[2]		A$0.66/lb (US$0.48/lb)
Financial assumptions and Project economics		
Lead metal price		US$0.95/lb
Silver metal price		US$14.50/oz
Exchange rate – US$ per A$1		0.73
Pre-tax net present value ("**NPV**") (8% discount rate)		A$528M
Pre-tax internal rate of return ("**IRR**")		50%
Payback (from first full year of commercial production)		2-years

Notes: 1. Including A$10.1M of contingency, A$13.8M of EPCM and A$12.3M of owner's and indirect costs, 2. Includes a by-product deduction for net silver revenue of A$0.08/lb (US$0.06/lb).

Commercial initiatives in support of Abra development – metal concentrate marketing

Abra's product is proposed to be a high-value, high-grade lead-silver concentrate. At 75% contained lead metal, it is believed that it will be the world's highest grade commercially available lead concentrate. The 'clean' nature of Abra's product, combined with a deficit market for lead concentrates globally bode well.

During the Quarter, Galena appointed WH (Bill) Cunningham as the Company's Metals Marketing Consultant. Mr Cunningham has had an extensive career involved in marketing and sales of non-ferrous products within CRA (Rio Tinto) Lead/Zinc Division, WMC Resources Nickel Division, Jubilee Mines, Western Areas and Lion Ore. Significantly, he worked with each of Sandfire Resources and Sirius Metals (now part of Independence Group) to successfully conclude concentrate sales agreements for the DeGrussa Mine and the Nova-Bollinger Mine, both being the most significant recent base metal mine developments in Western Australia.

Galena has now advanced engagement with a number of potential customers, receiving a very positive response in terms of the number of indications of interest received from international base metal trading companies and end-user smelting companies. Interested counterparties from Europe, China, and non-China east Asia submitted proposals.

Commercial initiatives in support of Abra development – project financing

During the Quarter, the Company initiated preliminary discussions with a number of parties regarding project financing. Such parties include traditional project financing banks and strategic counterparties.

Reserves and resources – PFS Updated Resource

In conjunction with the PFS, Galena prepared an updated resource for Abra. The Company utilised data from some of the already available 2018 infill drill-holes to review the block model from the March 2018 Resource (see Galena ASX announcement of 14 March 2018), resulting in an interim update in which some material has been reclassified from the Inferred category to Indicated ("**PFS Updated Resource**"). The volume of material in the Indicated category increased by 29%.

Table 3 (below) summarises the results of the PFS Updated Resource.

Table 3: JORC Mineral Resource estimate (PFS Updated Resource) at a 5% lead cut-off grade[1]

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Measured	-	-	-
Indicated	17.0	8.0	20
Inferred	19.7	6.6	15
Total	36.7	7.3	18

Notes: 1. Using Inverse Distance Interpolation.

Reserves and resources – maiden Ore Reserve estimate

In conjunction with the PFS, an Ore Reserve estimate was derived. The Ore Reserve estimation methodology was to prepare a 3D mine design model as per the PFS assumptions to determine shapes and locations of individual stopes. Those shapes were then tested against the PFS Updated Resource (ie, at 5% lead cut-off grade) block model in order to eliminate shapes that were not within the Indicated Resource and to consider appropriate dilution and mining recovery assumptions. Using available geotechnical data, an overbreak of less than 0.5 metres was estimated and a dilution of such was applied to all hangingwall stopes. The grade of dilution

hangingwall material for stope shapes was also estimated (Apron Zone hangingwall dilution grade 4.8% lead and Core Zone hangingwall dilution grade 4.2% lead). This confirmed the mining grade factors considering the reasonable grade of dilution material. Pillars were not designed but an allowance for Ore loss in pillars was included in the stope recovery factor. Consequently, a range of stope recoveries were applied for different mining methods. These range from 75% in the room and pillar areas, up to 95% for long-hole open stoping areas, where no pillars are planned. Based on this, the Ore Reserve estimate assumes an average overall stope recovery of 85%. Given the relatively high grade of dilution hangingwall material, an overall mining dilution factor of 5% was applied. Minimum mining width was assumed to be 5 metres.

Table 4 (below) summarises the Abra Maiden Ore Reserve estimate.

Table 4: JORC Ore Reserve statement[1]

Reserve classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Proved	-	-	-
Probable	10.5	8.1	20
Total	10.5	8.1	20

Notes: 1. Prepared by Mining and Project Development Services in conjunction with the PFS.

All Ore Reserve tonnes are included in the Indicated category of the PFS Updated Resource. However, only 62% of such Indicated Resources have become Probable Ore Reserves following the application of modifying factors.

Reserves and resources – 2018 Resource Infill and Development Drilling Program

During the Quarter, Galena continued its 2018 Resource Infill and Development Drilling Program and as at the end of the period, the Company had completed 21 diamond core drill-holes as part of the program for 11,645 cumulative linear metres of drilling.

The 2018 Resource Infill and Development Drilling Program has two aims: (i) to infill areas of existing Inferred Resources with the aim to upgrade the volume Indicated Resources; and (ii) to test for extensions to the high-grade mineralisation with the aim to upgrade the overall Resource. The assays received and announced during the Quarter continued to exceed the Company's expectations for success (see Galena ASX announcements of 2 August 2018, 30 August 2018 and 10 September 2018).

Importantly, in addition to the success of infill drill-holes, three holes (AB96, AB97 and AB98) intersected high-grade mineralisation up to 150 metres outside of the existing Resource. The following significant intersections were reported from those drill-holes (see Galena ASX announcement of 10 September 2018):

- AB96 returned 16.2m at 9.2% lead and 44g/t silver (including 4.5m at 15.1% lead, 44g/t silver and 0.9% copper) and 6.0m at 14.5% lead and 28g/t silver.
- AB97 intersected 6.0m at 11.8% lead and 19g/t silver.
- AB98 returned 4.6m at 5.9% lead and 19g/t silver.
- This mineralisation is gently dipping so intersection widths are interpreted to be estimates of true widths.

As at the end of the Quarter, assays and significant intersections from 17 of the total 21 drill-holes planned for the 2018 Resource Infill and Development Drilling Program have been announced. The Company is now working on a holistic Resource update, which will be announced once complete, including any remaining assays and significant intersections to report from the final four drill-holes of the program.

NON-ABRA PROSPECTS

Galena's non-Abra prospects consist of Woodlands, Manganese Range and Quartzite Well, which are located between approximately 20-50 kilometres or further to the west of Abra and reside within four granted Exploration Licences, being: E52/1413; E52/3575; E52/3630; and E52/3581.

It should be noted that subsequent to the end of the Quarter, the Company announced plans for the divestment of the non-core, non-Abra prospects (see Galena ASX announcement of 22 October 2018).

Woodlands

Assay results from two diamond core drill-holes completed in the June quarter were received, with significant interections summarised below:

- 11.0m at 0.46% copper from 349.0m in GWD001
- 3.6m at 0.86% copper from 374.0m in GWD001
- 20.7m at 1.10% lead from 214.3m in GWD002 (including 4.3m at 2.3% lead)
- 16.8m at 1.46% lead from 259.2m in GWD002
- 22.5m at 0.52% copper from 523.5m in GWD002
- 12.4m at 0.84% copper and 0.34g/t gold from 529.0m in GWD002 (including 7.4m at 1.16% copper)
- 3.4m at 0.55% copper from 604.0m in GWD002
- 2.8m at 0.98% copper from 624.6m in GWD002 (including 1m at 2.0% copper and 2.7g/t gold)
- 10.5m at 0.42% copper from 332.0m in GWD001 (including 0.5m at 1.63% copper and 0.25g/t gold)

Following downhole electromagnetic surveys in both holes which were completed in order to better define and delineate conductive bodies that may be a result of massive sulphide mineralization one additional reverse circulation drill-hole was completed at the 46-40 Prosepect. This was targeted at a new conductive plate however the hole deviated significantly from the target and was stopped in difficult ground conditions. This 284 metre deep hole, GWRC001, did not intersect any significant mineralization.

Manganese Range / Quartzite Well

No material activity during the Quarter.

CORPORATE

CEO / Managing Director appointment

The Company engaged Alex Molyneux as CEO / Managing Director, effective 1 September 2018. Mr Molyneux is an experienced metals and mining industry executive and financier. He recently completed three-years as CEO of Paladin Energy, one of the world's largest uranium companies, where he completed a US$700M successful recapitalisation of the company including raising US$115m in new capital and a re-listing on the ASX. Prior to Paladin Energy, Mr Molyneux spent approximately five-years with Ivanhoe Mines Group and Ivanhoe Energy in various leadership capacities including as CEO and Director of SouthGobi Resources (2009 – 2012). Mr Molyneux is well known for his breadth of experience in the mining industry and serves on a number of public company boards, including: Argosy Minerals, Metalla Royalty & Streaming, Tempus Resources and Azarga Metals. Prior to his mining industry executive and director roles, Mr Molyneux was Managing Director, Head of Metals and Mining Investment Banking, Asia Pacific for Citigroup. As a specialist resources investment banker, he spent approximately 10-years providing investment banking services to natural resources companies. Mr Molyneux holds a Bachelor Degree in Economics from Monash University.

Ed Turner, Galena's previous CEO has remained with the Company in the capacity of General Manager, Geology and Exploration.

OUTLOOK

Cash position

As at the end of the Quarter, the Company had approximately $4.8 million in cash comprised of cash at bank and term deposit balances. Having completed the physical works associated with the 2018 Resource Infill and Development Program as at the date of this report, Galena expends a substantial reduction in cash expenditure for the quarters ended 31 December 2018 and 31 March 2019, compared to the Quarter passed.

Outlook

Galena continues to target commencement of construction at Abra in 2019, with initial production in 2021 and the first full-year of steady-state commercial production in 2022.

Upcoming value-adding Abra and corporate milestone workstreams include:

- Preparation of an updated Mineral Resource estimate.
- A review of the JORC Ore Reserve and underground mine designs / schedule following the updated Mineral Resource estimate for a potential Ore Reserve update and optimisation of any PFS works.
- Abra permitting works – The Company has already concluded, based on completed base line environmental studies that the Project does not require EPA approval. Furthermore, it has already lodged various applications for minor permits allowing for infrastructure works approvals. Galena aims to lodge its final Mining Proposal in two to three months.
- Ongoing discussions with potential customers / offtakers.
- Continuation of discussions with project financing parties, including traditional project financing banks and strategic counterparties.

- Completion of a definitive / bankable feasibility study ("**DFS**") – Subsequent to the Quarter, the Company announced commencement of a DFS for Abra, including the retention of leading Australian engineering and consulting company, GR Engineering Services Limited (see Galena ASX announcement of 11 October 2018).
- Ongoing evolution of board and management expertise – Subsequent to the Quarter, Galena announced it had attracted high profile experienced underground miner, Tony James to its Board (see Galena ASX announcement of 15 October 2018).

In an announcement during the Quarter, Managing Director, Alex Molyneux commented, ***"Galena is 'laser-focussed' on getting Abra into construction in 2019."***

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 Simon Krebs, BEng (Mining, Member AUSIMM. Mr Krebs is an independent consultant to Galena through his company Mining Project and Development Services. Mr Krebs 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 Krebs 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 Mineral Resource estimate is based on work completed by Mr A Byass, B.Sc Hons (Geol), B.Econ, FSEG, MAIG a Director of Galena and Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena. Mr Byass was responsible for the resource estimation, classification and reporting. Mr Maclean was responsible for data review, QAQC, and development of the geological model. Mr Byass and Mr Maclean 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 Byass and Mr Maclean 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 E Turner B.App Sc, MAIG who is an employee of Galena. Mr Turner 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 Turner consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

No new information

This report contains references to exploration results and Mineral Resource estimates, all of which have been cross-referenced to previous announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant announcements and in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

APPENDIX 1 – Significant assay results at abra, September Quarter

Minimum lead intersection: 4m at 5.0%. Maximum internal dilution 4m at <5.0% lead. Minimum copper intersection: 2m at 1.0%. Minimum gold intersection: 2m at 1.0ppm.

HOLE ID	FROM	TO	INTERVAL (downhole)	GRADE Pb (%)	GRADE Ag (g/t)	GRADE Zn (%)	GRADE Cu (%)	GRADE Au (g/t)
AB84	327.8	331.8	4.0	13.2	34	-	-	-
AB85	346.9	375.1	28.3	8.9	52	-	-	-
AB86	546.6	550.6	4.0	7.5	11	-	-	-
	561.6	565.2	3.6	9.6	26	-	1.0	-
AB87	439.7	446.1	6.4	13.0	17			
AB88	457.8	461.9	4.1	7.7	15			.,
	478.3	507.9	29.6	9.5	19			
	513.1	524.0	10.9	24.0	33			
	572.7	581.4	8.7	11.2	17			
AB89	411.2	435.1	23.9	6.7	17	-	-	-
	495.0	501.0	6.0	8.1	15	-	-	-
	587.5	594.0	6.5	5.7	42	-	-	-
	640.8	647.5	6.7	8.9	28	-	0.3	-
AB90	677.8	682.5	4.7	6.5	10	-	-	-
AB91A	486.2	491.5	5.3	5.9	11	-	-	-
	535.2	539.1	3.9	5.5	9	-	-	-
	569.2	573.5	4.3	8.1	10	-	-	-
AB92	339.9	343.6	3.7	5.2	13	-	-	-
AB93	594.8	603.0	8.2	6.5	8	-	-	-
AB94	291.9	297.4	5.5	16.0	22	-	-	-
AB95	518.0	524.0	6.0	5.4	17	-	-	-
	629.0	626.0	7.0	5.8	10	-	-	-
AB96	373.0	389.2	16.2	9.2	44	-	-	-
	403.5	409.5	6.0	14.5	28	-	0.3	-
AB97	355.5	361.5	6.0	11.8	19	-	-	-
AB98	307.6	312.2	4.6	5.9	19	-	-	-

APPENDIX 2 – Completed diamond core drill-holes at Abra and their locations, September Quarter

Hole ID	E	N	Dip	Azi	Depth
AB90	660275	7272980	-71	355	692.6
AB91A	660525	7273034	-73	355	664.2
AB92	660225	7273555	-67	350	435.9
AB93	660675	7272958	-70	355	720.9
AB94	660277	7273637	-70	355	399.0
AB95	660325	7272956	-67	7	714.9
AB96	660165	7273470	-67	350	476.7
AB97	660075	7273550	-70	355	390.0
AB98	660175	7273636	-70	355	402.2
AB99	660386	7273372	-73	356	511.5
AB100	660325	7273672	-72	0	522.9
AB101	660325	7273672	-70	5	397.1
AB102	660662	7272771	-70	355	784.0

Appendix 3 – Tenement information as required by Listing Rule 5.3.3

Country	Location	Project	Tenement	Change in Holding (%)	Current Interest (%)
Australia	WA	Mulgul	M52/0776	0	100
Australia	WA	Jillawarra	E52/1413	0	100
Australia	WA	Mulgul	E52/1455	0	100
Australia	WA	Camp	G52/0286	0	100
Australia	WA	Camp	L52/0121	0	100
Australia	WA	Jillawarra	E52/3575	0	100
Australia	WA	Jillawarra	E52/3630	100	100
Australia	WA	Mulgul	G52/292	100	100
Australia	WA	Mulgul	L52/194	100	100
Australia	WA	Jillawarra	P52/1580	100	100
Australia	WA	Jillawarra	P52/1581	100	100
Australia	WA	Jillawarra	E52/3581*	0	0

*Galena has entered into an agreement with the owner of the tenement for a JV earn-in up to 100%.

About Abra Base Metals Project

Wholly 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 recently completed an outstanding pre-feasibility study ("**PFS**") (see Galena ASX announcement of 25 September 2018) for development of a mine and processing facility with a 14-year life producing a high-value, high-grade lead-silver concentrate containing approximately 91kt of lead and 760koz of silver per year after ramp-up. Based on a pre-development capital expenditure of A$154 million, the PFS modelled a pre-tax net present value for Abra (at an 8% discount rate) of A$528 million and an internal rate of return of 50%.

Reserves and resources for Abra are set out below.

JORC Mineral Resource estimate (PFS Updated Resource) at a 5% lead cut-off grade[1]

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Measured	-	-	-
Indicated	17.0	8.0	20
Inferred	19.7	6.6	15
Total	36.7	7.3	18

Notes: 1. Using Inverse Distance Interpolation.

JORC Ore Reserve statement[1]

Reserve classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Proved	-	-	-
Probable	10.5	8.1	20
Total	10.5	8.1	20

Notes: 1. Prepared by Mining and Project Development Services in conjunction with the PFS.

Abra location