

#### 30 January 2020

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# PHASE III DRILLING AT THE SORBY HILLS LEAD-SILVER-ZINC DEPOSIT RETURNS FURTHER ROBUST INTERSECTIONS

Pacifico Minerals Limited (ASX: PMY) ('**Pacifico**' or the '**Company**') is pleased to provide results from the Phase III drilling program ('**Phase III**') at its 75% owned Sorby Hills Lead-Silver-Zinc Project ('**Sorby Hills**' or the '**Project**').

# **HIGHLIGHTS**

- Results from Phase III drill holes have returned robust intersections and have provided extensions to current mineralisation and confirmed the possibility of a new zone of shallow mineralisation.
- Significant shallow drill intercepts from both B Deposit and Omega deposit include:
  - 18.0m at 5.08% Pb, 36 g/t Ag and 0.2% Zn from 10m Omega Deposit;
  - 10.0m at 7.16% Pb, 383 g/t Ag and 0.43% Zn from 110m Omega Deposit;
  - 6.0m at 9.53% Pb, 55 g/t Ag and 0.32% Zn from 47m Omega Deposit; and
  - 10.0m at 4.73% Pb, 34 g/t Ag and 0.46% Zn from 25m B Deposit.
- Targeting of an historic intercept has led to the discovery of a new, large, shallow depth anomaly for future testing.
- Phase III results underpin the continuity of mineralisation in previously low-density drilling areas and are likely to increase Indicated Resources within the next Mineral Resource Estimate ('**MRE**').
- Results received from the B Deposit indicate shallow (from 10m) extensions of the Indicated Resource area which remains open to the north and south and is likely to link up with A Deposit.

# INTRODUCTION

Pacifico intends to develop a large near-surface flat-lying lead-silver-zinc deposit located 50km northeast of Kununurra in Western Australia. There are existing sealed roads to transport concentrate from site to the facilities at Wyndham Port (150km from the Project). Established infrastructure and permitting allow for fast tracked production. After completing the acquisition of a 75% interest in the Sorby Hills Project in late 2018, Pacifico carried out drilling that significantly increased the size and confidence in the global MRE (36.0Mt of 3.7% Pb, 37g/t Ag and 0.5% Zn) as per ASX announcement 31 October 2019.

# PHASE III DRILLING PROGRAM

The Phase III infill and extension drilling program ('**Phase III**') was carried out from October to November 2019 aiming to increase Indicated Resources by targeting Inferred Resource areas with low drilling density, test the periphery of mineralisation for extensions of the mineralisation and target historic anomalies for their potential to add future mineralisation (ASX announcement 28 October 2019).

The program was focused on shallow mineralisation above 100 m depth, that may be mineable by open pit, at B and Omega deposits (Figure 1). Phase III consisted of 49 reverse circulation ('**RC**') holes for a total of 3,265 m. Most holes were inclined at 60° and drilled at 270° azimuth (towards the west).



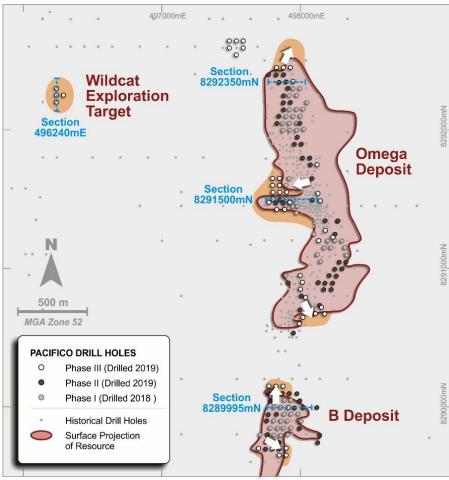


Figure 1: Layout of the Sorby Hills deposits and location of drill holes and cross sections.

### **MINERALISATION**

The mineralisation occurs as carbonate-hosted replacement type mineralisation, located predominantly underneath the shallow dipping contact of a dolomitic siltstone formation (Knox Sediments) and within a sedimentary breccia that overlies the underlying massive dolomite (Sorby Dolomite; Figures 2 and 3). All RC chips were geologically logged, and mineralised sections sent to Intertek Laboratories in Darwin for multi-element analysis, as well as for ore grade lead, zinc and silver analysis where appropriate. A summary of all significant intercepts of Phase III is given in Figure 4.

#### **OMEGA DEPOSIT**

Logging and analysis results from Phase III have returned intersections which support the estimated grades and targeted mineralisation geometry at the Omega deposit and have further confirmed the geological continuity of the mineralisation. Strong intercepts were returned from the peripheries of the mineralisation at shallow depth and down dip and justify further step-out drilling (Figures 2 and 3). The intercept in SH\_PD\_A-31 intersected high-grade mineralisation including one of the highest silver grades recorded at Sorby hills with 383 g/t Ag over 10m. This area is now a high priority for further testing. The interpretation of continuity of stratigraphy and mineralisation is further improved by a better understanding of the geometry and facies distribution of the host formation.

Importantly, the Omega deposit remains open to the west and southeast towards the B deposit (Figures 2 and 3). The development and distribution of the transitional sedimentary breccia interval appears to be a fundamental control to mineralisation. While fracturing and veining is more prominent in the brittle Sorby Dolomite, matrix replacement through sulphides dominates in the overlying transitional slump breccia beneath the Knox Sediments.

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#### **Results include:**

- 18.0m at 5.08% Pb, 36 g/t Ag and 0.2% Zn from 10m OMEGA drill hole SH\_PD\_A-18;
- 10.0m at 7.16% Pb, 383 g/t Ag and 0.43% Zn from 110m OMEGA drill hole SH\_PD\_A-31; and
- 6.0m at 9.53% Pb, 55g/t Ag and 0.32% Zn from 47m OMEGA drill hole SH\_PD\_A-15.

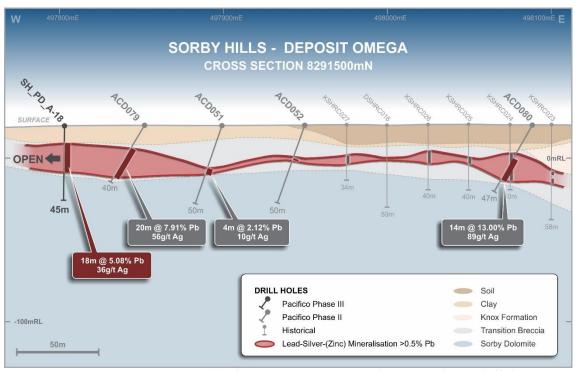


Figure 2: Interpreted geology section 8291500N, Omega deposit, central section highlighting the continuity of mineralisation in the west of Omega.

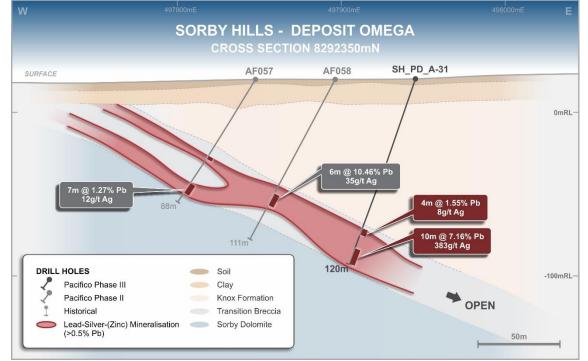


Figure 3: Interpreted geology section 8292350N, Omega deposit, central section. SH\_PD\_A-31 was planned to test continuity of mineralisation down-dip and along strike.





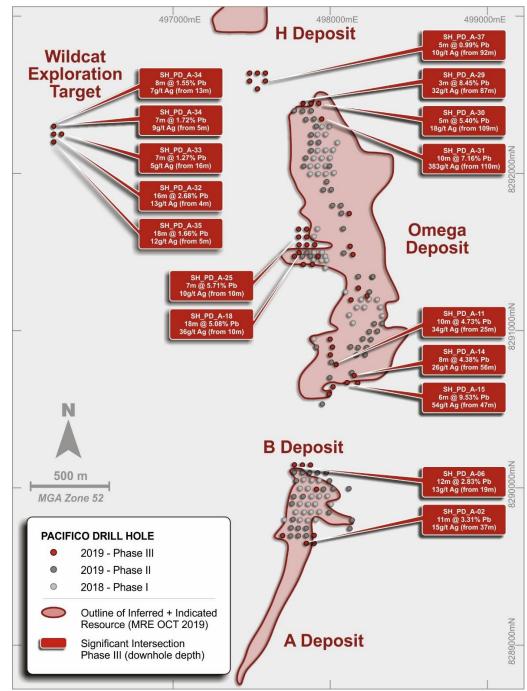


Figure 4: Plan of A, B and Omega deposits. Highlights of intersections to date from Phase III. Full list of intersections for Phase III in Appendix 2. MRE Inferred + Indicated Resource outlines as per ASX Announcement 1 November 2019. Only Pacifico drill holes shown in plan.

### **B DEPOSIT**

As a result of Phase III, the B Deposit is now considered one contiguous, low angle dipping mineralised horizon. The deposit is particularly shallow with only 9 m of cover to the top of the mineralised horizon, and most of it lies above 40 m depth (Figure 5). The mineralisation pinches and swells, strikes in a north-northeast direction and remains open to the south and north as a result of the recent drilling. It is also possible the B Deposit links up with the Omega Deposit to the north. The Company geologist are confident that the mineralisation can be extend incrementally during future drilling campaigns.

Results include:



- 16.0m at 2.77% Pb, 23 g/t Ag and 0.53% Zn from 36m B Deposit in drill hole SH\_PD\_A-05; and
- **12.0m at 2.83% Pb**, 13 g/t Ag and 0.35% Zn from 19m B Deposit in drill hole SH\_PD\_A-06.

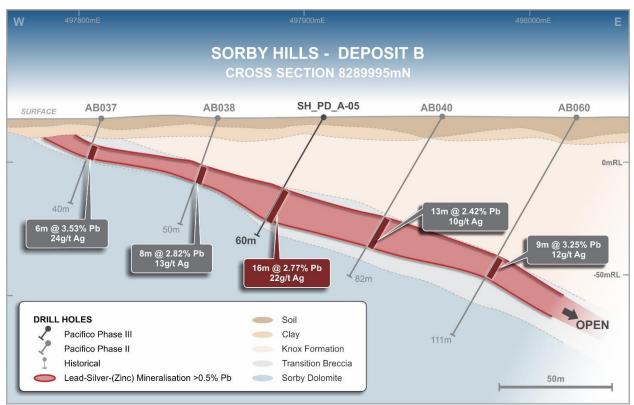


Figure 5: Interpreted geology section 8289995N, B deposit. The new drill hole confirmed the continuity of the mineralities.

#### WILDCAT EXPLORATION TARGET

A review of the historic database showed that there are several isolated mineralisation intercepts that have not been followed up which hold promise for the discovery of mineralities in the future. Pacifico included one such target for testing in Phase III (ASX Announcement 28 October 2019). The first hole the Company drilled was aimed at confirming the historic intercept followed by a small number of step-out drill holes. Both steps were successful in that the historic intercept was confirmed and the step-out drilling indicates continuity of mineralisation over an area of 130m by 70 m. The drill holes intersected a thick zone of mineralisation (Figure 6) commencing within 5m of the surface. The strategy will be to target and delineate sulphide mineralisation down dip to the east in a fellow up program.

Results include:

- 16.0m at 2.68% Pb, 12 g/t Ag and 0.28% Zn from 4m, incl. 5.0m at 5.50% Pb and 24 g/t Ag from 5m– Exploration Target in drill hole SH\_PD\_A-32; and
- **18.0 m at 1.66% Pb**, 12 g/t Ag and 0.37% Zn from 5m, **incl. 7.0m at 2.3% Pb and 16 g/t from 6m** Exploration Target in drill hole SH\_PD\_A-35.



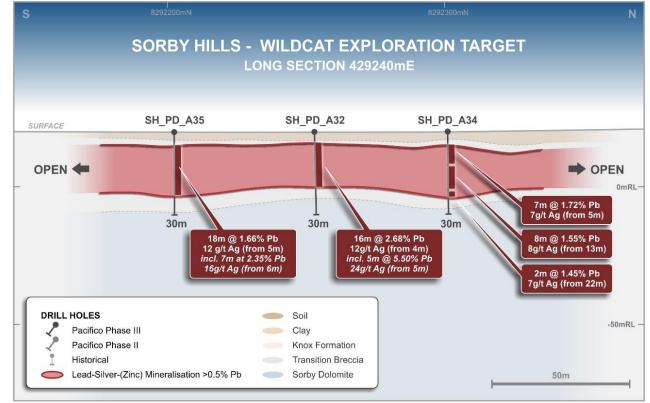


Figure 6: Interpreted geology section 496,240E, exploration target drilling showing the test holes completed around historic hole DDH\_17.

## OUTLOOK AND FUTURE EXPLORATION

The Company's last three exploration drilling campaigns have demonstrated that a step-change in the value unlocking of the project is reached through a careful and detailed review of the technical information and subsequent infill drilling. At present there are three more historic mineralisation lenses (excluding those that are at a very early stage) that require detailed assessment, re-interpretation and follow-up work programs. While the Company is focusing on delivering the PFS in the coming months, the technical team will prepare for the next series of drilling campaigns to increase the mineral inventory.

The Board of Directors of Pacifico Minerals Limited have authorised this announcement for release to the market.

**FOR FURTHER INFORMATION, OR TO BE ADDED TO OUR ELECTRONIC MAILING LIST, PLEASE CONTACT:** Simon Noon (Managing Director)

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#### ABOUT PACIFICO MINERALS LIMITED

Pacifico Minerals Limited ('**Pacifico**') (ASX: PMY) is a Western Australian based development and exploration company. The company is currently focused on advancing the Sorby Hills Lead-Silver-Zinc Joint Venture project in WA. Pacifico owns a 75% interest in the Joint Venture with the remaining 25% (contributing) interest held by Henan Yuguang Gold & Lead Co. Ltd.



#### ABOUT HENAN YUGUANG GOLD AND LEAD CO LTD

Henan Yuguang Gold and Lead Co., Ltd ('**HYG**') was established in 1957 by the government of Jiyuan City which is in Henan Province in North China. In July 2002, HYG (exchange code: 600531) was listed on the Shanghai Stock Exchange (SSX). Current ownership is approximately 29.61% by Jiyuan City. HYG is the largest lead smelting company and silver producer in China and has been among the Top 500 Chinese enterprises and Top 500 China manufacturing enterprises for the last five consecutive years. The main products produced by HYG are electrolytic lead, gold, silver and copper which are all registered at LME and LBMA respectively. In 2017, HYG produced 415,100 tonnes of electrolytic lead, 110,000 tonnes of copper, 958 tonnes of silver, 7,383 kg of gold and achieved sales of about US\$2,684 million. HYG's plants are largely modern, focussed on development of industrial technology and are environmentally friendly. Its recently refurbished lead smelting plant has achieved full automation. More information can be found on the HYG website; <u>http://www.yggf.com.cn/en/</u>.

#### COMPETENT PERSON STATEMENT AND JORC INFORMATION

The information in this release that relates to Exploration Results is based on information prepared by Dr Simon Dorling. Dr Dorling is a member of the Australasian Institute of Geoscientists (Member Number: 3101). Dr Dorling has sufficient experience which is relevant to the style of mineralization 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 JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Dorling consents to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for absolute certainty. Any economic decisions which might be taken on the basis of interpretations or conclusions contained in this announcement will therefore carry an element of risks.

#### FORWARD LOOKING STATEMENTS

Certain statements in this document are or maybe "forward-looking statements" and represent Pacifico's intentions, projections, expectations or beliefs concerning among other things, future exploration activities. The projections, estimates and beliefs contained in such forward-looking statements necessarily involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Pacifico, and which may cause Pacifico's actual performance in future periods to differ materially from any express or implied estimates or projections. Nothing in this document is a promise or representation as to the future. Statements or assumptions in this document as to future matters may prove to be incorrect and differences may be material. Pacifico does not make any representation or warranty as to the accuracy of such statements or assumptions.



# **APPENDIX 1**

TABLE OF RECEIVED RESULTS, 0.5% Pb CUT OFF, MINIMUM 2m INTERSECTION, MAXIMUM 2m INTERNAL WASTE <0.5% Pb

Hole ID	From	То	Thickness	Pb %	Ag ppm	Zn %
SH_PD_A-01	45	49	4	1.12	5.71	0.06
SH_PD_A-02	13	16	3	1.32	9.03	0.13
SH_PD_A-02	37	48	11	3.31	15.02	0.27
SH_PD_A-05	36	52	16	2.77	22.49	0.53
SH_PD_A-06	19	31	12	2.83	13.19	0.35
SH_PD_A-11	25	35	10	4.73	34.01	0.46
SH_PD_A-11	46	49	3	4.38	12.82	0.26
SH_PD_A-12	83	85	2	2.68	36.05	1.44
SH_PD_A-13	75	78	3	6.97	27.55	0.58
SH_PD_A-13	92	94	2	1.41	11.28	0.95
SH_PD_A-14	56	64	8	4.38	25.82	0.72
SH_PD_A-15	47	53	6	9.53	54.87	0.32
SH_PD_A-16	67	71	4	0.76	19.31	0.88
SH_PD_A-16	76	78	2	2.43	9.18	0.18
SH_PD_A-17	10	16	6	0.97	4.47	0.17
SH_PD_A-18	10	28	18	5.08	36.17	0.19
SH_PD_A-19	10	12	2	0.97	5.65	0.12
SH_PD_A-22	10	17	7	2.45	25.51	0.15
SH_PD_A-23	11	15	4	1.01	0.95	0.09
SH_PD_A-25	10	17	7	5.71	10.01	0.36
SH_PD_A-29	87	90	3	8.45	32.00	0.75
SH_PD_A-30	109	114	5	5.4	18.60	0.11
SH_PD_A-31	97	101	4	1.55	8.28	0.02
SH_PD_A-31	110	120	10	7.16	383.08	0.43
SH_PD_A-32	4	20	16	2.68	12.64	0.28
SH_PD_A-33	5	15	10	0.8	1.78	0.18
SH_PD_A-33	16	23	7	1.27	4.70	0.38
SH_PD_A-34	5	12	7	1.72	9.24	0.26
SH_PD_A-34	13	21	8	1.55	7.51	0.41
SH_PD_A-34	22	24	2	1.45	6.68	0.53
SH_PD_A-35	5	23	18	1.66	11.57	0.37
SH_PD_A-37	92	97	5	0.99	9.42	0.99
SH_PD_A-42	13	22	9	2.8	14.89	0.21
SH_PD_A-43	19	25	6	3.31	34.05	0.48
SH_PD_A-43	38	40	2	2.35	7.25	0.03
SH_PD_A-45	40	44	4	4.68	40.05	0.08
SH_PD_A-46	35	39	4	5.49	33.55	0.15
SH_PD_A-47	0	3	3	1.4	7.53	0.09

# **APPENDIX 2**

#### **CO-ORDINATES OF DRILL HOLES**

Pacit

Hole ID	Deposit	Drill Type	E (Z52)	N (Z52)	Z (Z52)	TD
SH PD A-01	B Deposit	RC	497896.51	8289702.45	19.65	65
SH PD A-02	B Deposit	RC	497848.64	8289656.10	19.63	55
SH PD A-03	B Deposit	RC	497896.47	8289653.84	19.75	55
SH PD A-04	B Deposit	RC	497697.00	8289701.77	19.71	65
 SH_PD_A-05	B Deposit	RC	497908.44	8289992.93	19.68	60
SH_PD_A-06	B Deposit	RC	497778.48	8290151.10	19.63	40
SH_PD_A-07	B Deposit	RC	497825.46	8290149.76	19.72	50
SH_PD_A-08	B Deposit	RC	497875.73	8290151.40	19.75	60
SH_PD_A-09	Omega Deposit	RC	497991.80	8290602.12	19.75	50
SH_PD_A-10	Omega Deposit	RC	498017.22	8290651.32	19.89	50
SH_PD_A-11	Omega Deposit	RC	498035.56	8290788.16	19.88	65
SH_PD_A-12	Omega Deposit	RC	498145.14	8291486.73	20.02	85
SH_PD_A-13	Omega Deposit	RC	498125.27	8291537.95	19.97	110
SH_PD_A-14	Omega Deposit	RC	498153.18	8290719.18	19.85	100
SH_PD_A-15	Omega Deposit	RC	498104.66	8290672.00	19.72	90
SH_PD_A-16	Omega Deposit	RC	498174.80	8290671.59	19.78	100
SH_PD_A-17	Omega Deposit	RC	497769.77	8291477.31	20.02	45
SH_PD_A-18	Omega Deposit	RC	497803.16	8291500.44	19.94	45
SH_PD_A-19	Omega Deposit	RC	497803.60	8291547.50	20.02	45
SH_PD_A-20	Omega Deposit	RC	497853.26	8291549.75	19.87	45
SH_PD_A-21	Omega Deposit	RC	497901.65	8291550.95	19.97	45
SH_PD_A-22	Omega Deposit	RC	497926.87	8291474.57	19.84	40
SH_PD_A-23	Omega Deposit	RC	497853.96	8291648.43	19.44	40
SH_PD_A-24	Omega Deposit	RC	497805.22	8291648.30	19.93	40
SH_PD_A-25	Omega Deposit	RC	497802.53	8291602.26	20.13	40
SH_PD_A-26	Omega Deposit	RC	497853.42	8291603.92	20.03	40
SH_PD_A-27	Omega Deposit	RC	498120.01	8291747.93	20.03	105
SH_PD_A-28	Omega Deposit	RC	497876.33	8292449.83	20.29	110
SH_PD_A-29	Omega Deposit	RC	497827.45	8292451.12	20.26	90
SH_PD_A-30	Omega Deposit	RC	497925.64	8292450.63	20.36	120
SH_PD_A-31	Omega Deposit	RC	497945.58	8292352.58	20.43	120
SH_PD_A-32	Wildcat exploration	RC	496239.91	8292252.77	20.03	30
SH_PD_A-33	Wildcat exploration	RC	496291.19	8292251.44	20.13	30
SH_PD_A-34	Wildcat exploration	RC	496241.50	8292300.89	20.21	30
SH_PD_A-35	Wildcat exploration	RC	496241.43	8292202.16	20.13	30
SH_PD_A-36	Omega Deposit	RC	497536.21	8292544.53	20.27	105
SH_PD_A-37	Omega Deposit	RC	497589.18	8292594.27	20.24	105
SH_PD_A-38	Omega Deposit	RC	497486.83	8292594.40	20.26	105
SH_PD_A-39	Omega Deposit	RC	497581.49	8292645.53	20.22	105
SH_PD_A-40	Omega Deposit	RC	497531.85	8292643.78	20.27	105
SH_PD_A-41	Omega Deposit	RC	497486.64	8292643.31	20.22	105
SH_PD_A-42	Omega Deposit	RC	497999.93	8290852.02	19.86	45



SH_PD_A-43	Omega Deposit	RC	498013.71	8290901.96	19.83	55
SH_PD_A-44	Omega Deposit	RC	498129.11	8291203.07	19.89	55
SH_PD_A-45	Omega Deposit	RC	498232.83	8291226.11	19.93	105
SH_PD_A-46	Omega Deposit	RC	498177.68	8291275.22	19.94	50
SH_PD_A-47	Omega Deposit	RC	497831.94	8291426.02	19.87	40
SH_PD_A-48	Omega Deposit	RC	497887.11	8291426.11	19.95	40
SH_PD_A-49	Omega Deposit	RC	497998.66	8290951.20	20.00	55



# **APPENDIX 3 JORC CODE, 2012 EDITION – TABLE 1**

## Section 1 Sampling Techniques and Data

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

	Criteria	JORC Code Explanation	Commentary
>	Sampling techniques	<ul> <li>Nature and quality of sampling (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 handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>During the drilling program (from October to November 2019), RC sampling during the Pacifico 2019 Phase 3 campaign was conducted at 1m intervals for the entire length of the hole.</li> <li>All the samples from RC pre-collars and RC holes were scanned with a portable XRF (Olympus InnovX Delta) for an indication of qualitative lead and zinc concentration. Intervals were selected for assaying from XRF readings above 0.3% Pb. An additional metre sample was taken above and below this interval.</li> <li>The sampling methodology is considered representative and appropriate for the carbonate hosted style of mineralisation at Sorby Hills.</li> <li>A total of 596 samples (inclusive of blanks, standards and duplicates) were submitted for assay analysis for the Pacifico 2019 Phase 3 campaign</li> </ul>
((       ))	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).	<ul> <li>The drilling method used in the Phase III 2019 drill program was RC drilling only</li> </ul>
	Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain</li> </ul>	<ul> <li>RC bags collected at site were subject to a visual relative volume estimate, and later weighed. Estimated relative volumes were mostly at 100% through mineralisation and bag weights were consistent at around 23 kg.</li> <li>Through use of an auxiliary compressor and booster with the RC rig most samples were collected dry. There was an occasional wet sample when there was excessive water flow pressure.</li> <li>Poor sample recoveries (&lt;20 kg) are noted in the initial 10-15 m of alluvial/clay pan cover.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Logging	<ul> <li>of fine/coarse material.</li> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<ul> <li>RC chips were logged at the rig at Sorby Hills including indications of bulk lithologies, sedimentary textures, colours and visual estimates of mineralisation.</li> <li>Photographic records of the RC chip trays were also collected.</li> <li>100% of the Phase III drilled 3,625 m have been logged and photographed.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>2 kg samples were collected from each RC metre using a rig mounted cone-splitter. The booster compressor was used on the rig to maintain consistently dry samples. Duplicate samples were collected (spear sampling from bulk green RC bags) for laboratory analysis if that interval was selected for assay analysis.</li> <li>The full set of cone-splitter samples were collected in calico bags and retained for record keeping and future works; stored in a secure facility in Kununurra.</li> <li>All one-metre intervals from the drilling were scanned with a portable XRF for an indication of qualitative lead and zinc concentration. 1 m intervals were selected to be sampled when lead or zinc were &gt;0.3% as indicated by the pXRF. An additional metre sample was taken above and below this interval.</li> <li>pXRF optimised blanks and standards and calibration checks were utilised at the start of every hole prior to XRF analysis of the RC intervals. QAQC indicate high levels of confidence in the pXRF analyses.</li> <li>In the occurrence of a drill hole having separate mineralised intervals, additional assay samples may have been selected for continuity of data where the gap between mineralised intervals was small (e.g. less than ~5 m).</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples sent to Intertek-Genalysis in Darwin for preparation and analysis. Duplicates, blanks and standards inserted at regular interval (n = 70)</li> <li>Rock chip samples were assayed to accepted industry standards at the Intertek-Genalysis nationally certified laboratory in Darwin. Multi-acid digestion of pulverised samples were followed by ICP-OES or equivalent assay techniques.</li> <li>Certified Ore Grade Base Metal Reference Materials were provided by Geostats Pty Ltd.</li> <li>Duplicates and blanks were included in all sample despatches.</li> <li>All 596 results from the Phase III laboratory assay tests have all been received and reviewed (pertinent results reported in this announcement). QAQC indicates results are within acceptable limits.</li> </ul>



Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Geological logs were completed digitally on templates in MS Excel and copied into the companies drilling database.</li> <li>Assay certificates were received from the analytical laboratories and imported into the drill database.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Accurately surveyed using a DGPS by a registered surveyor and recorded in GDA94 Zone 52.</li> <li>All drill holes were surveyed on completion of the drill hole with a Reflex Gyro tool every 30 m.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Hole spacing varies but drilling is mostly completed on a 50 (E-W) metre by 50 (N-S) metre drill pattern.</li> <li>49 angled and vertical holes drilled in the Phase III 2019 drilling program will be imported into the Sorby Hills database and standard geostatistics will be performed to determine the grade and continuity and assess the appropriate resource category to classify based on drill hole spacing and grade continuity.</li> <li>Holes drilled at 60° and 70° to the west (270°), to better sample both shallow and steeply dipping mineralised structures considered significant to the mineralisation. Vertical holes completed for improving continuity of inferred and indicated resource.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>It is not considered that there is a significant sampling bias due to structure.</li> <li>Holes drilled at 60° and 70° to the west (270°) and vertically, to better sample both shallow and steeply dipping mineralised structures considered significant to the mineralisation.</li> </ul>
Sample Security	• The measures taken to ensure sample security.	<ul> <li>Samples are stored and processed at a secure facility in Kununurra. All samples taken by Pacifico personnel to the truck depot in Kununurra and placed on a pallet and sealed for transport direct to the Intertek-Genalysis laboratory in Darwin.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>Independent geologists have reviewed the sampling protocols in the field, the import of assay results from the laboratory online access system and the data management within excel spreadsheets and the Access database in recent periods</li> </ul>

Section 2 Reporting of Exploration Results



(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Pacifico Minerals Ltd acquired a 75% interest in the Sorby Hills lead-silver project in Western Australia on 5 October 2018. Yuguang (Australia) Pty Ltd and wholly owned subsidiary of Henan Yuguang Gold &amp; Lead Co. Ltd (HYG) owning the remaining 25%. The Sorby Hills Project comprises five mining leases (M80/196-197 and M80/285-287) (see Table 2 below), all of which are currently held jointly between Sorby Hills Pty Ltd (75%) and Yuguang (Australia) Pty Ltd (25%).</li> <li>Table 2: Sorby Hills Tenement Summary</li> </ul>
		Tenement         Area (km²)         Granted         Expiry           M80/196         9.99         22/01/198         21/01/2030           M80/197         9.95         8         21/01/2030           M80/197         9.95         8         21/01/2030
		M80/285         5.57         9         28/03/2031           M80/286         7.89         29/03/198         28/03/2031           M80/287         8.15         9         28/03/2031
		<ul> <li>The Mining Leases are centred at coordinates 128°57′E, 15°27′N.</li> <li>The project area is approximately 50 km north-northeast of the township of Kununurra and covers a total area of 12,612.40 hectares (ha).</li> </ul>
		<ul> <li>Native title has not been granted over the area. The Mining Leases were granted prior to the High Court acknowledging Native Title and therefore native title has been extinguished over the MLs.</li> <li>The project area lies adjacent to proposed Goomig</li> </ul>
		<ul> <li>The project area has adjacent to proposed Gooning Range Conservation Park.</li> <li>Tenure is in good standing until 2030 (in some cases, out to 2031. M80/286 &amp; M80/197 have a current cultural clearance access agreement in place; for the remaining mining tenements normal cultural clearance plans would be required. No mining agreement has been negotiated.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Sorby Hills area has been systematically explored by numerous companies since 1971. Prominent amongst these were ELF Aquitaine (1973-1981) with various JV partners (SEREM, St Joe Bonaparte &amp; BHP), BHP (1981-1988), in JV with Triako; and CBH/Kimberley Metals/KBL Mining.</li> <li>Previous work included, geologic mapping, soil</li> </ul>
Geology	• Deposit type, geological setting and	<ul> <li>Previous work included, geologic mapping, son geochemistry, airborne and ground geophysics and extensive drilling campaigns.</li> <li>The Sorby Hills mineralisation is regarded as</li> </ul>



Criteria	JORC Code Explanation	Commentary
	style of mineralisation.	<ul> <li>having many features typical of Mississippi Valley Type (MVT) deposits. Recent geological assessment has refined this to a sediment replacement system, with mineralisation focused on the contact between the upper Knox Sediments and the lower Sorby Dolomite.</li> <li>The Sorby Hills mineralisation consists of 13 discrete carbonate hosted Ag Pb Zn deposits (previously referred to as pods): A–J, Beta East, Beta West and Alpha. The deposits form a linear north-south belt extending over 7 km, sub parallel to the eastern margin of the Precambrian Pincombe Inlier and within the Carboniferous Burt Range Formation of the Bonaparte Basin.</li> <li>The mineralisation is largely stratabound and hosted mainly on the contact between Knox Sediments and Sorby Dolomite and in dolomitic breccia which is typically developed at the contact of a crystalline dolomite unit and overlying dolomitic siltstone which generally dips shallowly to the east.</li> <li>The deposits average 7–10 m in thickness, are from 2 km long and 100 to 500 m wide. There is some structural control to the mineralisation, with higher grade zones associated with faulting. Mineralisation is often thicker and/or of higher grade in areas of strong brecciation.</li> <li>The Sorby Hills primary mineralisation is typically silver and lead-rich with moderate to high pyrite (FeS<sub>2</sub>) content and generally low amounts of sphalerite (ZnS). Galena (PbS) occurs as massive to semi-massive crystalline lenses often found in the more argillaceous units, and as coarse to fine disseminations or as open-space fill in fractures, breccias and vughs. Sphalerite typically predates galena and occurs as colloform open-space fill. It is typically more abundant at the lateral fringes of and below the lead mineralisation. Silver values tend to increase as the lead content increases and is generally assumed to be closely associated with the galena. A discrete pyrite zone is seen to occur below the base-metal mineralisation.</li> <li>The upper portions of the deposits are often oxid</li></ul>



Criteria	JORC Code Explanation	Commentary
Criteria Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul> <li>Secondary lead minerals exist through the deposit has not been systematically documented; however, it is possible that other lead-oxide minerals may be present.</li> <li>A report has been prepared by the registered surveyor as to the accuracy of the DGPS surveying undertaken at the drill collars.</li> <li>The drill hole database for the Sorby Hills project area for A, B, Omega, H, I, J, Alpha and Beta deposits since its discovery in 1971 comprises 1325 surface drill holes for a total of 125,378.2 m of drilling.</li> </ul>
	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.	
Data aggregation methods	<ul> <li>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.</li> </ul>	<ul> <li>No aggregated exploration data is reported here.</li> <li>Not applicable</li> </ul>
	<ul> <li>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>Should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there</li> </ul>	<ul> <li>The stratabound mineralisation at Sorby Hills generally dips gently to the east.</li> </ul>

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Criteria	JORC Code Explanation	Commentary
	should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>All plan view, cross-sectional and long sectional diagrams accurately reflect coordinates.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	All drill hole locations are reported in Appendix 2.
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>Since the discovery of Sorby Hills base metal deposit in 1971 considerable geological information concerning the mineralisation and its host has been compiled. Similarly, numerous geochemical soil surveys and geophysical surveys have been conducted across the tenement package. This information is well documented in company annual reports and can be readily accessed via the WA DMIRS website.</li> <li>Extensive metallurgical test work on drill core samples from the Sorby Hills deposit was carried out in the laboratories of the Technical Services Department of Mount Isa Mines Limited, Mount Isa in the late 1970s and early 1980s.</li> <li>Subsequently, CBH Resources commissioned AMML to carry out a test work program to confirm the results of the Mount Isa Mines work and investigate the replacement of sodium cyanide (NaCN), used as a depressant for iron pyrite and zinc sulphide, by alternative reagents. The results of this work appeared in Report 0034-1 dated 8 August 2008. Further test work was carried out by AMML for Sorby Management, following the change in ownership of the Sorby Hills project. The results appeared in Report 0194-1 dated 24 Oct 2011.</li> <li>A first stage of metallurgical testwork commissioned by Pacifico Minerals was reported 17 July 2019 (ASX Announcement). It confirmed the higher recoveries that can be obtained from this style of carbonate replacement mineralisation. Flotation recoveries of up to 96% Pb and 95% Ag were obtained and the testwork indicated that a final concentrate grade of 65%Pb can be produced. Outstanding results were also obtained to upgrade the ores prior to flotation by heavy liquid separation and by ore sorting.</li> </ul>

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Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further drill campaigns are planned to improve geological confidence, to upgrade the resource to higher confidence categories (i.e. from inferred to Indicated Resource, and from Indicated Resource to Measured Resource), to aid in future Reserve estimates, and to delineate additional areas of potentially economic mineralisation. The drilling results reported in this announcement form Phase II.</li> </ul>