
Buchans New In-Pit Mineral Resource Estimate for Lundberg Deposit

- **16.79 million tonnes Indicated grading 3.38% ZnEq**
- **0.38 million tonnes Inferred grading 4.46% ZnEq**

Toronto, March 1, 2019 – Buchans Resources Limited (the “Company” or “Buchans”), a Canadian base metal mineral exploration and development company, is pleased to announce a new, pit-constrained, Mineral Resource Estimate for its Lundberg base metal deposit, located at the former Lucky Strike mine site, within its 100% owned Buchans project in central Newfoundland, Canada.

“We are very pleased to have successfully upgraded the Lundberg deposit to a more robust, pit-constrained, Mineral Resource comprised almost entirely of Indicated category Mineral Resources” said **John F. Kearney: Chairman & Chief Executive of Buchans Resources**. *“The new estimate demonstrates that Lundberg’s in-pit Mineral Resources contain more than 1.25 billion pounds zinc equivalent in the Indicated category and, as such, we believe Lundberg represents a potential open pit mine development project, optimally situated on a brownfields site, with excellent infrastructure and a low strip ratio.”*

The new 2019 Mineral Resource Estimate (“2019 MRE”) was prepared by Mercator Geological Services Limited (Mercator). The pit shell was developed and optimized by MineTech International Limited. Projected metal recoveries are based on the previous Central Milling Facility Assessment by Thibault & Associates Ltd and the Net Smelter Return (NSR) calculator was prepared by Stantec Consulting.

The 2019 MRE is constrained by an optimized pit shell that incorporates net smelter return (“NSR”) cut-offs reflecting metal price assumptions of US \$1.20/lb Zn, \$1.00/lb Pb, \$3.00/lb Cu, \$1250/oz Au, and \$17/oz Ag and costs and recovery parameters determined through continued assessment of the project, comprising multiple past studies, such as the positive Preliminary Economic Assessment (“PEA”) completed by Tetra Tech in August of 2011 and the Mineral Resource Estimate completed by Mercator in February 2013, as well as several metallurgical investigations, including bench-scale studies completed by Thibault & Associates Ltd in 2017, and additional definition drilling undertaken by the Company in 2018.

Lundberg 2019 MRE Highlights (See Table 1 below for the complete Mineral Resource Estimate):

- **In-pit Indicated Mineral Resources total 16,790,000 tonnes** grading 1.53% Zn, 0.64% Pb, 0.42% Cu, 5.69 g/t Ag and 0.07 g/t Au (**3.38% ZnEq**), containing **1.25 billion pounds Zinc Equivalent**, as 566.3 million pounds zinc, 236.9 million pounds lead, 155.5 million pounds copper, 3.1 million ounces silver, and 37.8 thousand ounces gold.
- **In-pit Inferred Mineral Resources total 380,000 tonnes** grading 2.03% Zn, 1.01% Pb, 0.36% Cu, 22.35 g/t Ag and 0.31 g/t Au (**4.46% ZnEq**) containing **0.037 billion pounds Zinc Equivalent**, as 17.0 million pounds zinc, 8.5 million pounds lead, 3.0 million pounds copper, 0.27 million ounces silver, and 3.8 thousand ounces gold.
- The In-pit Mineral Resource assigns **97.8% of the resources to the Indicated category**, leaving just 2.2% assigned to the Inferred category.

- The In-Pit-constrained Mineral Resource is based on an optimized pit shell, measuring 860 metres in length by 650 metres in width, extending to a maximum depth of 240 metres, using an NSR cut-off at US\$20 per tonne and results in a **strip ratio of 2.9**.

The Lundberg deposit surrounds the former Lucky Strike mine site, where Asarco operated a near-surface underground and glory hole mining operation until mine closure in 1984. The Lundberg deposit is mainly comprised of stockwork mineralization surrounding and lying below the former Lucky Strike orebody but includes some massive sulphide mineralization remaining unmined in the former operations.

The Lundberg project is favourably situated on a brownfields site with excellent infrastructure, including access by provincially maintained paved roads, power, water and other infrastructure. Located in the Province of Newfoundland and Labrador, one of the top mining jurisdictions in Canada, a positive and cooperative relationship has been established with the immediately adjacent, former mining, town of Buchans.

Table 1. Lundberg Deposit Mineral Resource Estimate - Effective February 28, 2019

NSR Cut-off (USD/t)	Category	Tonnes	Zn %	Pb %	Cu %	Ag g/t	Au g/t	Zn Eq. %	NSR (USD/t)	Strip Ratio
20	Indicated	16,790,000	1.53	0.64	0.42	5.69	0.07	3.38	54.98	2.9
	Inferred	380,000	2.03	1.01	0.36	22.35	0.31	4.46	72.95	

1. Mineral Resource tonnages have been rounded to the nearest 10,000. Totals may vary due to rounding.
2. Price assumptions used were US \$1.20/lb Zn, \$1.00/lb Pb, \$3.00/lb Cu, \$1250/oz Au, and \$17/oz Ag.
3. Metallurgical recoveries to concentrates are based on the Central Milling Facility Assessment (Thibault & Associates Ltd., 2017). Metal recoveries are 83.0% Cu, 13.3% Au, and 7.84% Ag in the copper concentrate, 84.3% Pb, 10.5% Au, and 50.3% Ag in the lead concentrate, and 87.2% Zn, 8.28% Au, and 14.8% Ag in the zinc concentrate.
4. Net Smelter Return (NSR) USD/t values were determined by calculating the value of each Mineral Resource model block using an NSR calculator prepared by Stantec Consulting. The NSR calculator uses the stated metal pricing, metallurgical recoveries to concentrates, concentrate payable factors and current shipping and smelting terms for similar concentrates.
5. Zinc Equivalent metal grade (Zn Eq. %) was calculated as follows using metal pricing, metallurgical recoveries to concentrates, and concentrate payable factors as applied in the NSR calculator: $Zn\ Eq\ \% = Zn\ \% + ((Cu\ \% \times 22.046 \times 0.8020 \times 3) + (Pb\ \% \times 22.046 \times 0.8010 \times 1) + (Au\ g/t / 31.10348 \times 0.2198 \times 1250) + (Ag\ g/t / 31.10348 \times 0.6514 \times 17)) / (1.20 \times 22.046 \times 0.7412)$.
6. The Mineral Resource pit shell was developed and optimized by MineTech International Limited. Optimization parameters include: mining at US \$3 per tonne, processing at US \$15 per tonne, and G&A at US \$2 per tonne (total US \$20).
7. A cut-off value of \$20 USD/t NSR within the optimized pit shell was used to estimate Mineral Resources.
8. Mineral Resources were interpolated using Inverse Distance Squared methods applied to 1.5 metre downhole assay composites.
9. Results of an interpolated Inverse Distance Squared bulk density model (g/cm³) were applied.
10. Mineral Resources are considered to reflect reasonable prospects for economic extraction in the foreseeable future using conventional open pit mining methods.
11. Mineral Resources do not have demonstrated economic viability.
12. This estimate of Mineral Resources may be materially affected by environmental, permitting, legal title, taxation, socio-political, marketing, or other relevant issues.

A map and 3D oblique images showing the pit-constrained resource, optimized pit and deposit NSR block model can be viewed at the Company's website at: <http://www.BuchansResources.com>.

The 2019 MRE replaces the previous Mineral Resource Estimate completed in 2013 ("2013MRE") which is now considered historic in nature and should no longer be relied upon.

The ultimate pit design estimate used in the previous PEA completed in 2011, of 17.28 million tonnes, in the Inferred category, is now, along with the PEA itself, considered historic in nature and should not be relied upon. The 2011 PEA was undertaken during a period of prevailing high Canadian:US currency exchange rates (one Canadian dollar valued at US\$ 0.988) and evaluated an open pit mine operating at 5,000 tonnes per day over a 10-year mine life.

John F. Kearney: Chairman & Chief Executive of Buchans Resources commented:

“The most recent formal economic evaluation of Lundberg was undertaken as a Preliminary Economic Assessment completed in 2011 that was based on an Inferred Mineral Resource of 17.28 million tonnes. Through completion of a large amount of additional infill core drilling, relogging of archived drill core, database upgrading and detailed deposit model studies in the intervening seven years, we have realized in the 2019 MRE a ~97.8% conversion of 2011 PEA Ultimate Pit Design Inferred resources to 2019 MRE Indicated resources at comparable grades and a slightly lower strip ratio.”

“The new 2019 MRE, containing more than 1.25 billion pounds zinc equivalent in the Indicated category, demonstrates a significantly more robust project and, coupled with enhanced parameters determined by the Company’s continued assessments, provides compelling rationale to undertake a new updated PEA, or a Preliminary Feasibility Study, to assess Lundberg as a standalone open-pit mineral resource development.”

“Buchans believes re-evaluation of Lundberg using the higher confidence 2019 MRE, updated costs, metallurgical and metal pricing parameters, and significantly improved prevailing currency exchange rates (compared to rates used by the 2011 PEA), could result in significantly improved outcomes in future economic analyses of the project.”

Sensitivity to Cut-Off Grades (In-Pit-Constrained)

The In-Pit-constrained Mineral Resource in the 2019 MRE reflects an NSR US\$20 per tonne cut-off. A range of cut-off values was also assessed for sensitivity, as tabulated in **Table 2**.

Table 2. Lundberg Deposit Cut-Off Grade Sensitivity Report

NSR Cut-off (USD/t)	Category	Rounded Tonnes	Zn %	Pb %	Cu %	Ag g/t	Au g/t	Zn Eq. %	NSR (USD/t)
15	Indicated	18,750,000	1.43	0.59	0.39	5.29	0.07	3.14	51.08
	Inferred	430,000	1.84	0.91	0.33	19.95	0.30	4.05	65.89
20	Indicated	16,790,000	1.53	0.64	0.42	5.69	0.07	3.38	54.98
	Inferred	380,000	2.03	1.01	0.36	22.35	0.31	4.46	72.95
25	Indicated	14,360,000	1.68	0.70	0.46	6.30	0.08	3.71	60.49
	Inferred	300,000	2.38	1.20	0.41	26.62	0.36	5.22	84.96
30	Indicated	12,170,000	1.84	0.77	0.51	7.00	0.08	4.08	66.44
	Inferred	240,000	2.82	1.43	0.44	31.78	0.41	6.06	99.05
35	Indicated	10,540,000	1.98	0.82	0.55	7.64	0.09	4.39	71.70
	Inferred	210,000	3.15	1.61	0.48	36.15	0.45	6.76	110.21
40	Indicated	9,240,000	2.10	0.87	0.59	8.25	0.10	4.67	76.52
	Inferred	180,000	3.44	1.77	0.51	40.39	0.50	7.37	120.20
45	Indicated	8,050,000	2.23	0.93	0.64	8.90	0.10	5.01	81.58
	Inferred	150,000	3.86	2.04	0.56	47.15	0.55	8.32	135.70
50	Indicated	6,990,000	2.37	0.98	0.68	9.61	0.11	5.32	86.75
	Inferred	130,000	4.34	2.33	0.61	54.78	0.62	9.36	152.64

This sensitivity illustrates that at higher cut-offs Lundberg still hosts significant resource tonnages. For example, using a 100% higher cut-off at US\$40NSR per tonne results in an Indicated Mineral Resource tonnage of 9.2 million tonnes at a zinc equivalent grade of 4.67%. At the even higher cut-off threshold of US\$50NSR, the 2019 MRE In-Pit Mineral Resource Indicated tonnage is estimated at 7 million tonnes at a zinc equivalent grade of 5.32%.

The sensitivity analysis predicts that considerable tonnage exists at higher cut-off thresholds and indicates the evaluation of various higher grade, lower tonnage, lower through-put, economic scenarios is warranted.

Comparing these sensitivities in respect of their contained metal as presented in **Table 3**, the 2019 MRE In-Pit Indicated tonnage at the **US\$30NSR threshold contains more than one billion pounds Zinc Equivalent**. At the higher threshold of US\$50NSR, the 2019 MRE In-Pit Indicated tonnage contains more than 800 million pounds Zinc Equivalent.

The sensitivity analysis demonstrates that a high proportion of contained metal is retained at higher cut-off thresholds and indicates that further optimization opportunities remain available to future economic analysis.

Table 3. Lundberg Deposit Cut-Off Grade Sensitivity Report – Contained Metal

NSR Cut-off (USD/t)	Category	Rounded (M tonnes)	ZnEq* (M lb)	Zn* (M lb)	Pb* (M lb)	Cu* (M lb)	Ag* (oz)	Au* (oz)	Zn Eq. %	NSR (USD/t)
15	Indicated	18.75	1,299.6	591.1	243.9	161.2	3,189,000	42,000	3.14	51.08
	Inferred	0.43	38.4	17.4	8.6	3.1	276,000	4,000	4.05	65.89
20	Indicated	16.79	1,250.1	566.3	236.9	155.5	3,072,000	38,000	3.38	54.98
	Inferred	0.38	37.4	17.0	8.5	3.0	273,000	4,000	4.46	72.95
25	Indicated	14.36	1,173.0	531.9	221.6	145.6	2,909,000	37,000	3.71	60.49
	Inferred	0.30	34.5	15.7	7.9	2.7	257,000	3,000	5.22	84.96
30	Indicated	12.17	1,093.6	493.7	206.6	136.8	2,739,000	31,000	4.08	66.44
	Inferred	0.24	32.1	14.9	7.6	2.3	245,000	3,000	6.06	99.05
35	Indicated	10.54	1,019.1	460.1	190.5	127.8	2,589,000	30,000	4.39	71.70
	Inferred	0.21	31.3	14.6	7.5	2.2	244,000	3,000	6.76	110.21
40	Indicated	9.24	952.2	427.8	177.2	120.2	2,451,000	30,000	4.67	76.52
	Inferred	0.18	29.3	13.7	7.0	2.0	234,000	3,000	7.37	120.20
45	Indicated	8.05	888.3	395.8	165.0	113.6	2,303,000	26,000	5.01	81.58
	Inferred	0.15	27.5	12.8	6.7	1.9	227,000	3,000	8.32	135.70
50	Indicated	6.99	819.2	365.2	151.0	104.8	2,160,000	25,000	5.32	86.75
	Inferred	0.13	26.8	12.4	6.7	1.7	229,000	3,000	9.36	152.64

*Calculated contained pounds of zinc, lead, copper and zinc equivalent rounded to the nearest 100,000. Calculated contained ounces of silver and gold rounded to the nearest 1,000.

The 2019 MRE was prepared incorporating 21,203 metres of drilling by Buchans in 144 surface drill holes, including 91 holes totaling 13,145 metres drilled since the 2011 PEA, and including 17 holes totaling 2,205 metres drilled in 2018. In addition, the 2019 MRE incorporated information collected through systematic relogging of approximately 28,000 metres of core from 280 archived surface and underground drill holes from the former Lucky Strike mine. Archived core was viewed for this purpose by availing of services and resources provided by the NL Department of Natural Resources' core library at Buchans.

COMPARISON WITH PREVIOUS RESOURCE ESTIMATES

Comparison With 2013 MRE

The previous, Mineral Resource Estimate for the Lundberg deposit, dated February 2013 (“2013 MRE”) (See Buchans Minerals Corporation NI 43-101 Technical Report, Effective Date April 26th, 2013 filed on SEDAR), is now considered historic in nature and should no longer be relied upon. It has been superseded by the current Mineral Resource Estimate.

The 2013 MRE included Indicated Mineral resources of 23.44 million tonnes grading 1.41% Zn, 0.60% Pb, 0.35% Cu, 5.31 g/t Ag and 0.07 g/t Au and Inferred resources of 4.31 million tonnes grading 1.29% Zn, 0.54% Pb, 0.27% Cu, 4.47 g/t Ag and 0.08 g/t Au, using a NSR\$US15/tonne cut-off.

The 2019 Lundberg deposit block model was made available to MineTech International Limited of Halifax Nova Scotia, who generated an optimized pit shell, optimized to maximum Net Present Value based on the cost, recovery and metal pricing parameters disclosed in Notes 2 through 6 of **Table 1**. The net effect of the 2019 optimized pit shell is to not include certain portions of the Lundberg mineral deposit that do not fall within the optimized shell volume. The material falling within the pit shell that meets the \$US20 NSR value defines the final 2019 MRE statement presented as **Table 1**.

While the 2019 pit optimization excludes significant volumes of mineralization within the Lundberg deposit from classification as Mineral Resources, it should be noted that much of the excluded volume lies largely beneath the bottom of the current pit shell and has potential to be included in future optimized pit shells that reflect changes in metal prices or other parameters defined for future optimization and Mineral Resource estimation.

Comparison with 2011 PEA

A positive Preliminary Economic Assessment of the Lundberg deposit was completed in 2011 (“2011 PEA”) using an earlier Mineral Resource estimate comprised entirely of Inferred Mineral Resources (see Buchans Minerals Corporation NI 43-101 Technical Report, Effective Date August 11, 2011 filed on SEDAR). Both the 2011 PEA and the associated Mineral Resource Estimate are considered historic and should not be relied upon. The 2011 PEA assumed an ultimate pit design for the base case pit containing 17.28 Mt of Inferred Mineral Resources with an average grade over a 10-year mine life of 1.63% Zn, 0.69% Pb, 0.40% Cu, 5.96 g/t Ag, 0.07 g/t Au and 1.24% Ba, as presented in **Table 4**.

Table 4. Ultimate Pit Design Results (from historic 2011 PEA, Table 16.6, p. 16-20)

Item	Tonnes (millions)	Zn %	Pb %	Cu %	Ag g/t	Au g/t	Ba %	ZnEq % ¹
Inferred Resource	17,280,000	1.63	0.69	0.40	5.96	0.07	1.24	3.47
Waste Rock	52,930,000							
Stripping Ratio	3.06							

^{1.} ZnEq% calculated as per 2019 ZnEq% calculation (see Table 1, Note 5), 2011 PEA metal price and currency exchange assumptions: 3.62 \$US/lb Cu, 1.10 \$US/lb Pb, 1.22 \$US/lb Zn, 22.74 \$US/oz Ag, value CDN dollar in \$US 0.988.

Comparing the pit-constrained 2019 MRE to the historic 2011 PEA base case ultimate pit Inferred Mineral Resource, the 2019 MRE shows 16.79 million tonnes in the higher confidence Indicated category, compared to 17.28 million tonnes in the Inferred category in the historic 2011 PEA.

Comparing grade, the 2019 MRE grade of 3.38% ZnEq, reflects a slight decrease of 0.10% ZnEq from the historic 2011 PEA ultimate pit design grade of 3.47% ZnEq, (or an overall reduction of 2.8% in grade).

Based on comparison of the 2019 MRE to the ultimate pit scenario used in the 2011 PEA, Buchans believes it has been highly successful in increasing confidence in the Lundberg deposit through the 2019 MRE. This is exemplified by the highly-comparable tonnage in the current Indicated Mineral Resource category within the new optimized pit shell relative to that previously assigned to the Inferred Mineral Resource category within the 2011 ultimate pit.

The 2011 PEA was undertaken during a period of prevailing high Canadian:US currency exchange rates (2011 PEA assumed one Canadian dollar valued at US\$ 0.988) and the Company feels that assessment of this factor at lower exchange rates indicative of long-term trends could, in combination with other updated parameters, positively influence future analysis of Lundberg deposit economic viability.

Recommendations

Mercator has concluded that the 2019 MRE represents a substantial upgrade in deposit definition confidence that is exemplified by its large inventory of Indicated category Mineral Resources. Mercator's primary recommendation arising from the 2019 MRE program is that an updated assessment of the Lundberg deposit's economic potential be completed as the next phase of project evaluation. This could take the form of a new Preliminary Economic Assessment or an internal economic study leading to a decision to proceed directly to a Pre-Feasibility Study assessment of deposit economics.

CENTRAL NEWFOUNDLAND ZINC LEAD PROJECTS

Buchans controls mineral rights covering 116 km² (11,600 hectares) considered prospective for VMS Zn-Pb-Cu-Ag-Au base metal deposits within the Buchans district of central Newfoundland.

Buchans' extensive land package includes several undeveloped deposits including the large, lower grade, Lundberg stockwork deposit located beneath the former Lucky Strike massive sulphide orebody, as well as several smaller "satellite deposits", composed of higher-grade, massive sulphide mineralization, including the Daniels and Bobbys deposits located within the Company's Tulks North property, 20 km south of Buchans.

Drilling completed by Buchans in 2018 in four target areas within a radius of 3.5 kilometres of Lundberg/Lucky Strike returned favourable results warranting further exploration to identify additional higher-grade resources that could potentially complement Lundberg's development or could be developed as stand-alone mining projects (*see Buchans news release dated January 23, 2019*). The Company remains optimistic that its Buchans project still holds potential for discovery of new VMS deposits comparable to historically mined orebodies in the Buchans camp, where Asarco mined more than 16.2 million tonnes from five separate deposits, with a combined average grade of 14.51% Zn, 7.65% Pb, 1.33% Cu, 126 g/t Ag, and 1.37g/t Au, before mine closure in 1984.

Buchans' exploration strategy in Newfoundland is to continue to build on its existing resource base with the aim of developing either a stand-alone open pit mine centred on the larger lower grade Lundberg stockwork deposit, or a number of smaller higher-grade VMS deposits that could be developed simultaneously and processed in a central milling facility, similar to past-producing mines at Buchans or Duck Pond.

QUALIFIED PERSON

The 2019 Mineral Resource Estimate was prepared by Matthew Harrington, P. Geo., and Michael Cullen, P. Geo., of Mercator Geological Services, with support from Douglas Roy, P. Eng. of MineTech International Limited and Tim McKeen, P. Eng., of Stantec Limited. All are Independent Qualified Persons as defined by NI 43-101. The 2019 Mineral Resource Estimate has been classified in accordance with

Buchans Resources Limited

News Release

CIM Definition Standards on Mineral Resources and Mineral Reserves (May 14, 2014). Mr. Cullen and Mr. Harrington have read and approved the contents of this news release, as it relates to the disclosed Mineral Resource Estimate.

In accordance with NI 43-101, a Technical Report will be filed on SEDAR within 45 days of the disclosure of this news release. For the purposes of this news release, Paul Moore, P. Geo., Vice President Exploration for Buchans Resources Limited is the designated non-Independent Qualified Person and has reviewed and approved the technical and scientific contents of this press release.

ABOUT BUCHANS RESOURCES

Buchans Resources Limited is incorporated under the laws of the Province of Ontario, Canada and is a "reporting issuer" in the Provinces of Alberta, British Columbia, Nova Scotia and Newfoundland and Labrador. The Company was a wholly-owned subsidiary of Minco plc until August 30, 2017, at which time all the shares in the Company were transferred to Minco shareholders.

Buchans Resources has interests in zinc, lead, silver properties located in Canada, Ireland and the United Kingdom, gold properties in Newfoundland and in Labrador, copper cobalt in Labrador and manganese in New Brunswick and, indirectly through its 22% shareholding in Xtierra Inc. (TSXV: "XAG"), in base metal and silver projects in Mexico.

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Additional information is available on the Company's website at www.BuchansResources.com.

FORWARD-LOOKING STATEMENTS

This document contains certain forward-looking statements relating to, but not limited to, the Company's expectations, intentions, plans and beliefs. Forward-looking information can often be identified by forward-looking words such as "anticipate", "believe", "expect", "goal", "plan", "intend", "estimate", "may" and "will" or similar words suggesting future outcomes, or other expectations, beliefs, plans, objectives, assumptions, intentions or statements about future events or performance. Forward-looking information may include reserve and resource estimates, estimates of future production, unit costs, costs of capital projects and timing of commencement of operations, and is based on current expectations that involve a number of business risks and uncertainties. Factors that could cause actual results to differ materially from any forward-looking statement include, but are not limited to, failure to establish estimated resources and reserves the grade and recovery of ore which is mined varying from estimates, capital and operating costs varying significantly from estimates, delays in obtaining or failures to obtain required governmental, environmental or other project approvals, delays in the development of projects changes in exchange rates, fluctuations in commodity prices, inflation and other factors. Forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results to differ materially from expected results. Shareholders and prospective investors should be aware that these statements are subject to known and unknown risks uncertainties and other factors that could cause actual results to differ materially from those suggested by the forward-looking statements. Shareholders are cautioned not to place undue reliance on forward-looking information. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, that contribute to the possibility that the predictions, forecasts, projections and various future events will not occur. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking information whether as a result of new information, future events or other such factors which affect this information, except as required by law.