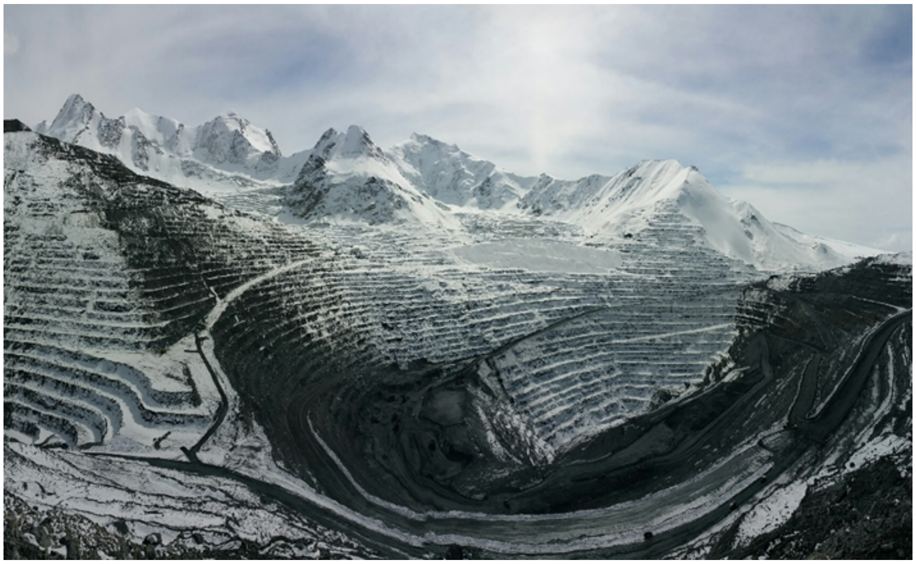
CIBC CAPITAL MARKETS

EQUITY RESEARCH

November 14, 2022 **Earnings Revision**

Weekly CIBC Mining Benchmark



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Sector:
Materials

All figures in U.S. dollars otherwise stated.

For required regulatory disclosures please refer to "Important Disclosures" beginning on page 20.

Our Conclusion

We incorporate in our Weekly CIBC Mining Benchmark minor changes to EPS and CFPS estimates, reflecting primarily actual quarterly prices, intraday comment changes, changes to underlying streams/royalties, and the operational fine-tuning of mines/projects during the week. See page 17-18 for details.

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Metals & Mining – Royalty Companies & Gold Producers - Valuation Summary, November 13, 2022

Valuation Summary

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Analyst	Rating*1	Local Currency	Share Price (local)	Price Target (local)	Using SPOT Assumptions: ND/EBITDA 2022E	ND/EBITDA 2023E	EV/EBITDA 2022E	EV/EBITDA 2023E	FCF Yield 2022E	FCF Yield 2023E	P/CF 2022E	P/CF 2023E	P/NPV at 5%	CF/Share (Reporting Currency) 2022E	CF/Share (Reporting Currency) 2023E	NPV/Share at 5% (US$)	SPOT +10%: CF/Share (Reporting Currency) 2022E	CF/Share (Reporting Currency) 2023E	NPV/Share at 5% (US$)
Royalty Stocks																					
Franco-Nevada Corporation	FNV	CC	OP	C$	187.78	230.00	-1.1	-1.7	23.8	24.6	3.4%	3.1%	28.3	24.8	2.1	5.01	5.72	66.16	5.12	6.12	69.88
Maverix Metals	MMX	MS	R																		
Osisko Gold Royalties Ltd	OR	CC	OP	C$	17.22	23.00	1.6	1.2	19.3	20.4	0.9%	4.3%	18.9	18.8	1.1	0.91	0.92	11.85	0.92	0.99	13.37
Royal Gold, Inc.	RGLD	CC	NT	US$	105.10	135.00	0.6	-0.1	16.3	15.2	-4.6%	5.6%	17.4	17.8	1.6	6.04	5.90	65.07	6.18	6.58	71.84
Sandstorm Gold Ltd.	SSL	CC	OP	C$	6.98	12.50	2.5	2.6	11.8	15.9	-28.0%	6.7%	9.6	14.9	0.8	0.55	0.35	6.29	0.56	0.40	6.97
Triple Flag Precious Metals Corp.	TFPM	CC	R																		
Wheaton Precious Metals Corp.	WPM	CC	OP	US$	37.99	60.00	-0.5	-0.3	21.9	18.5	2.2%	0.5%	22.8	19.0	1.5	1.67	2.00	25.59	1.69	2.26	28.49
Peer Average							**-0.5**	**-0.8**	**21.7**	**21.1**	**1.0%**	**2.8%**	**24.3**	**21.6**	**1.8**	**3.79**	**4.22**	**49.33**	**3.87**	**4.59**	**53.00**
Large Producers																					
Agnico-Eagle Mines Limited	AEM	AS	OP	US$	48.70	66.00	0.2	0.6	9.4	7.5	3.4%	3.4%	9.3	9.3	0.9	5.24	5.23	52.67	5.47	6.12	64.32
B2Gold Corp.	BTG	AS	OP	US$	3.58	5.00	-0.7	-1.0	3.6	4.0	8.1%	10.4%	6.2	5.6	0.9	0.58	0.64	4.00	0.62	0.74	4.71
Barrick Gold Corporation	GOLD	AS	OP	US$	16.44	25.00	0.0	0.1	6.5	6.7	3.3%	4.1%	7.5	6.7	0.8	2.19	2.46	20.76	2.34	2.99	24.68
Endeavour Mining Corporation	EDV	AS	OP	C$	26.84	40.00	0.0	-0.1	4.4	4.6	8.8%	5.0%	5.0	5.0	0.7	4.04	4.04	28.71	4.06	4.70	35.23
Kinross Gold Corporation	KGC	AS	NT	US$	4.31	5.00	1.5	1.3	5.6	5.1	4.5%	7.3%	5.1	4.0	0.9	0.85	1.08	4.54	0.91	1.33	6.33
Newcrest Mining Limited	NCM	AS	NT	A$	19.83	28.00	0.6	0.5	6.1	5.6	1.3%	1.4%	6.9	6.9	0.8	1.92	1.92	16.50	1.92	2.18	21.39
Newmont Corporation	NEM	AS	NT	US$	46.53	52.00	0.5	0.5	8.6	8.1	3.1%	4.2%	11.3	10.2	1.1	4.10	4.57	41.52	4.38	5.57	49.65
Peer Average							**0.3**	**0.4**	**7.5**	**6.9**	**3.5%**	**4.1%**	**8.8**	**8.1**	**0.9**	**3.33**	**3.56**	**32.20**	**3.51**	**4.26**	**38.98**
SMID Gold Producers																					
Alamos Gold Inc.	AGI	CC	OP	C$	11.77	15.00	-0.5	-0.5	11.7	8.8	0.0%	2.1%	11.2	9.3	0.8	0.79	0.96	11.27	0.83	1.15	13.20
Centerra Gold Inc.	CG	AS	NT	C$	7.03	8.25	-2.7	-1.5	3.7	1.4	-8.9%	25.3%	>50	3.3	0.6	0.00	1.61	9.12	0.06	1.92	11.21
Dundee Precious Metals Inc.	DPM	CC	OP	C$	7.07	10.00	-1.9	-2.1	2.5	2.3	13.6%	12.4%	4.8	4.3	0.6	1.12	1.25	8.70	1.17	1.49	10.15
Eldorado Gold Corporation	EGO	CC	OP	US$	7.10	11.00	0.5	2.1	3.6	3.9	-8.5%	-45.7%	6.5	4.2	0.3	1.09	1.71	20.34	1.22	2.18	26.13
Equinox Gold Corp.	EQX	AS	NT	C$	4.83	4.40	5.7	2.7	12.8	5.3	-49.4%	-25.8%	15.7	4.3	0.5	0.23	0.85	6.99	0.30	1.12	9.39
i-80 Gold Corp.	IAU	BA	OP	US$	2.80	5.00	na	4.2	>50	38.6	-18.5%	-4.5%	>50	>50	0.5	-0.19	-0.01	4.09	-0.18	0.01	4.70
IAMGOLD Corporation	IAG	AS	UN	US$	1.85	1.50	2.3	2.6	5.4	5.7	-62.6%	-91.0%	2.2	4.6	0.7	0.83	0.40	2.55	0.86	0.55	3.34
Karora Resources Inc.	KRR	AS	NT	US$	4.02	4.50	-0.5	-1.0	4.9	2.4	-8.6%	24.4%	4.3	2.3	1.1	0.70	1.29	2.76	0.75	1.52	3.44
Lundin Gold Inc.	LUG	BA	OP	C$	12.33	15.50	0.8	0.1	5.9	4.9	11.5%	16.2%	8.1	6.0	1.0	1.15	1.55	9.38	1.15	1.55	9.38
New Gold Inc.	NGD	AS	NT	US$	1.11	1.40	1.3	1.6	5.5	3.5	-12.5%	-13.2%	3.5	3.0	0.7	0.32	0.37	1.49	0.34	0.48	1.99
OceanaGold Corporation	OGC	CC	NT	C$	2.41	3.00	0.7	0.4	4.1	3.2	6.5%	3.7%	3.4	3.0	0.9	0.54	0.61	2.05	0.57	0.74	2.86
Orla Mining Ltd.	OLA	BA	OP	C$	4.74	7.00	0.3	-0.3	9.9	8.3	6.6%	8.5%	13.0	13.1	0.5	0.28	0.27	7.44	0.29	0.32	9.11
SSR Mining Inc	SSRM	CC	OP	US$	15.01	21.00	-0.8	-1.5	6.9	6.5	4.4%	5.6%	9.9	7.4	0.8	1.51	2.03	19.38	1.65	2.52	23.36
Torex Gold Resources Inc.	TXG	BA	NT	C$	11.82	16.50	-0.4	-0.5	0.8	1.1	15.3%	-38.8%	2.0	3.2	0.5	4.42	2.75	17.91	4.50	3.07	21.94
Victoria Gold Corp.	VGCX	MS	NT	C$	8.17	15.00	1.6	1.2	5.3	4.7	-7.8%	8.9%	6.3	3.9	0.4	0.97	1.59	14.80	1.07	1.95	17.63
Yamana Gold Inc.	AUY	AS	TR	US$	5.12	5.30	0.3	0.0	6.9	6.6	4.0%	8.2%	7.3	6.5	0.6	0.70	0.79	9.06	0.73	0.92	10.63
Peer Average							**0.2**	**0.1**	**6.7**	**6.3**	**-2.4%**	**-1.6%**	**7.5**	**6.1**	**0.7**	**0.91**	**1.16**	**10.43**	**0.96**	**1.37**	**12.46**

Source: Company reports, FactSet and CIBC World Markets Inc.

* Share prices in currencies as indicated

*1 Rating: OP Outperformer; NT Neutral; UN Underperformer; TR Tender; R Restricted; *2 NPV for Base Metal and Diversified Miners are generally at 8%

*3 All figures run at CIBC prices 'Analyst: AS Anita Soni; BA Bryce Adams; CC Cosmos Chiu; MS Mohamed Sidibe

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners – Valuation Summary, November 13, 2022

Valuation Summary

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Analyst	Rating*[1]	Local Currency	Share Price (local)	Price Target (local)	Using SPOT Assumptions: ND/EBITDA 2022E	ND/EBITDA 2023E	EV/EBITDA 2022E	EV/EBITDA 2023E	FCF Yield 2022E	FCF Yield 2023E	P/CF 2022E	P/CF 2023E	P/NPV at 5%	CF/Share (Reporting Currency) 2022E	CF/Share (Reporting Currency) 2023E	NPV/Share at 5% (US$)	SPOT +10%: CF/Share (Reporting Currency) 2022E	CF/Share (Reporting Currency) 2023E	NPV/Share at 5% (US$)
Gold Developers																					
Artemis Gold	ARTG	AS	NT	C$	4.50	9.00	na	na	>50	>50	-8.7%	-54.9%	>50	>50	0.4	-0.03	-0.03	9.15	-0.03	-0.03	11.59
Ascot Resources	AOT	AS	NT	C$	0.43	0.65	na	na	>50	>50	-49.4%	-98.0%	>50	>50	0.3	-0.01	-0.01	0.93	-0.01	-0.01	1.16
Marathon Gold	MOZ	AS	NT	C$	0.91	1.75	na	na	>50	>50	-21.4%	-113.8%	>50	>50	0.5	-0.02	-0.01	1.35	-0.02	-0.01	1.72
O3 Mining Inc.	OIII	BA	OP	C$	1.41	4.00	na	na	>50	>50	-36.5%	-20.2%	>50	>50	0.2	-0.06	-0.04	4.54	-0.06	-0.04	6.08
Orezone Gold Corporation	ORE	BA	OP	C$	1.24	2.20	2.0	-0.4	9.3	2.1	-33.5%	39.4%	11.5	2.4	0.4	0.08	0.39	2.12	0.09	0.44	2.52
Osisko Mining Inc.	OSK	BA	OP	C$	3.71	6.25	4.9	na	>50	>50	-16.0%	-18.4%	>50	>50	0.7	-0.04	-0.04	4.21	-0.04	-0.04	4.91
Probe Metals	PRB	MS	OP	C$	1.29	3.35	na	na	>50	>50	-24.4%	-11.4%	>50	>50	0.3	-0.23	-0.10	2.81	-0.23	-0.10	3.48
Skeena Resources	SKE	MS	OP	C$	7.60	17.00	na	na	>50	>50	-16.1%	-13.2%	>50	>50	0.4	-0.59	-0.09	13.92	-0.59	-0.09	16.14
Peer Average							**na**	**na**	**na**	**na**	**-19.2%**	**-32.0%**	**na**	**na**	**0.5**	**-0.10**	**0.00**	**5.92**	**-0.10**	**0.01**	**7.14**
Silver Stocks																					
Endeavour Silver Corp.	EDR	CC	NT	C$	4.70	7.50	-1.0	0.9	14.7	14.7	-2.2%	-11.6%	16.9	18.4	1.2	0.21	0.19	3.06	0.23	0.27	3.56
Fortuna Silver Mines Inc.	FVI	CC	NT	C$	4.63	5.00	0.5	0.2	5.0	4.1	1.4%	8.4%	4.9	4.6	1.0	0.71	0.75	3.41	0.75	0.91	4.44
Gatos Silver Inc.	GATO	CC	NT	US$	3.89	5.75	0.0	-0.1	3.4	6.1	5.3%	0.5%	3.9	7.4	1.3	1.01	0.53	3.08	1.29	0.74	3.95
Hecla Mining Company	HL	CC	NT	US$	4.94	7.00	3.9	1.2	28.6	10.9	7.0%	3.5%	42.4	12.4	1.3	0.12	0.40	3.87	0.15	0.51	5.16
MAG Silver Corp.	MAG	CC	NT	C$	21.45	27.00	-1.3	-1.4	34.8	16.5	-4.3%	-4.3%	>50	>50	1.9	-0.14	-0.31	8.64	-0.14	-0.34	10.17
Pan American Silver Corp.	PAAS	CC	OP	US$	15.45	25.00	0.0	-0.2	12.9	3.6	-0.7%	8.4%	13.1	7.8	0.7	1.18	1.99	22.51	1.37	2.44	28.57
Peer Average							**0.9**	**0.2**	**20.3**	**8.8**	**1.4%**	**3.2%**	**19.1**	**8.3**	**1.1**	**0.52**	**0.84**	**10.71**	**0.61**	**1.05**	**13.53**
Base Metal*[2]																					
Capstone Copper	CS	BA	OP	C$	4.75	5.00	1.3	0.6	8.4	6.0	-18.0%	2.4%	10.5	5.7	0.5	0.34	0.62	6.76	0.37	0.72	8.93
Copper Mountain Mining	CMMC	BA	NT	C$	1.73	2.00	14.3	1.2	31.0	4.4	-24.8%	44.7%	19.5	2.0	0.3	0.09	0.88	4.10	0.13	1.28	6.15
Ero Copper	ERO	BA	NT	C$	17.04	18.00	1.2	1.8	6.1	5.4	-9.1%	-11.7%	6.6	5.5	0.5	1.95	2.36	23.70	2.10	2.98	30.55
First Quantum	FM	BA	NT	C$	33.56	26.00	1.4	1.2	6.9	6.8	8.7%	5.3%	6.6	7.2	0.8	3.85	3.51	33.44	4.05	4.22	42.61
Hudbay	HBM	BA	OP	C$	7.27	10.00	1.7	0.8	4.6	3.0	6.1%	18.0%	3.4	2.6	0.5	1.59	2.15	12.14	1.72	2.68	17.49
Lundin Mining	LUN	BA	NT	C$	8.23	8.50	0.1	0.2	4.3	3.1	-0.7%	-0.6%	5.2	4.5	0.6	1.19	1.37	9.71	1.25	1.67	13.09
Sierra Metals	SMT	BA	**R**																		
Peer Average							**1.3**	**1.0**	**6.7**	**5.8**	**3.5%**	**4.3%**	**6.7**	**6.2**	**0.7**	**2.84**	**2.73**	**25.11**	**2.99**	**3.30**	**32.28**
Diversified & Specialty Miners*[2]																					
Teck Resources	TECK.B	BA	OP	C$	46.43	56.50	0.4	0.0	3.0	2.6	18.2%	22.1%	2.2	2.3	0.3	16.07	15.96	113.86	17.00	20.60	152.58
Cameco Corporation*[3]	CCO	BA	**R**																		
Largo Inc.*[3]	LGO	BA	NT	C$	6.64	10.00	-1.0	-0.2	14.9	5.2	4.9%	0.9%	18.8	6.2	0.6	0.72	0.81	30.15	0.72	0.81	30.15

Source: Company reports, FactSet and CIBC World Markets Inc.

* Share prices in currencies as indicated

*[1] Rating: OP Outperformer; NT Neutral; UN Underperformer; TR Tender; R Restricted; *[2] NPV for Base Metal and Diversified Miners are generally at 8%

*3 All figures run at CIBC prices 'Analyst: AS Anita Soni; BA Bryce Adams; CC Cosmos Chiu; MS Mohamed Sidibe

Metals & Mining – Royalty Companies & Gold Producers - Net Present Value, November 13, 2022

Net Present Value

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Share Price US$	Current Cash US$M	Current Debt US$M	Current Net Debt US$M	Using CIBC Assumptions NPV Per Share (US$)* 5%	Using CIBC Assumptions NPV Per Share (US$)* 10%	Using CIBC Assumptions P/NPV (x)* 5%	Using CIBC Assumptions P/NPV (x)* 10%	Using SPOT Assumptions NPV Per Share (US$)* 5%	Using SPOT Assumptions NPV Per Share (US$)* 10%	Using SPOT Assumptions P/NPV (x)* 5%	Using SPOT Assumptions P/NPV (x)* 10%
Royalty Stocks													
Franco-Nevada Corporation	FNV	141.66	1,057	5	-1,052	63.84	47.45	2.2	3.0	66.16	49.00	2.1	2.9
Maverix Metals	MMX	**R**											
Osisko Gold Royalties Ltd	OR	12.99	219	223	4	10.71	6.60	1.2	2.0	11.85	7.35	1.1	1.8
Royal Gold, Inc.	RGLD	105.10	122	452	330	60.74	36.19	1.7	2.9	65.07	38.64	1.6	2.7
Sandstorm Gold Ltd.	SSL	5.27	16	3	-14	5.82	4.40	0.9	1.2	6.29	4.79	0.8	1.1
Triple Flag Precous Metals	TFPM	**R**											
Wheaton Precious Metals Corp.	WPM	37.99	495	2	-492	23.47	16.54	1.6	2.3	25.59	17.78	1.5	2.1
Peer Average			**382**	**137**	**-245**	**46.93**	**33.42**	**1.9**	**2.7**	**49.33**	**34.92**	**1.8**	**2.5**
Large Producers													
Agnico-Eagle Mines Limited	AEM	48.70	830	1,471	640	45.47	22.02	1.1	2.2	52.67	25.44	0.9	1.9
B2Gold Corp.	BTG	3.58	549	63	-487	3.54	2.90	1.0	1.2	4.00	3.27	0.9	1.1
Barrick Gold Corporation	GOLD	16.44	5,280	5,150	-130	18.05	13.60	0.9	1.2	20.76	15.36	0.8	1.1
Endeavour Mining Corporation	EDV	20.25	832	881	48	24.49	12.40	0.8	1.6	28.71	14.81	0.7	1.4
Kinross Gold Corporation	KGC	4.31	497	2,552	2,056	3.45	1.17	1.2	3.7	4.54	1.82	0.9	2.4
Newcrest Mining Limited	NCM	13.29	565	1,890	1,325	12.67	9.35	1.0	1.4	16.50	12.47	0.8	1.1
Newmont Corporation	NEM	46.53	3,813	6,127	2,314	36.35	29.79	1.3	1.6	41.52	33.91	1.1	1.4
Peer Average			**1,767**	**2,590**	**824**	**27.80**	**19.00**	**1.1**	**1.7**	**32.20**	**21.91**	**0.9**	**1.4**
SMID Gold Producers													
Alamos Gold Inc.	AGI	8.88	132	0	-132	10.01	6.80	0.9	1.3	11.27	7.67	0.8	1.2
Centerra Gold Inc.	CG	5.30	582	6	-576	7.80	6.52	0.7	0.8	9.12	7.68	0.6	0.7
Dundee Precious Metals Inc.	DPM	5.33	420	9	-410	7.84	6.75	0.7	0.8	8.70	7.47	0.6	0.7
Eldorado Gold Corporation	EGO	7.10	307	514	208	15.74	9.88	0.5	0.7	20.34	13.08	0.3	0.5
Equinox Gold Corp.	EQX	3.64	26	67	41	5.50	3.01	0.7	1.2	6.99	4.26	0.5	0.9
i-80 Gold Corp.	IAU	2.11	101	114	13	3.68	3.91	0.6	0.5	4.09	4.23	0.5	0.5
IAMGOLD Corporation	IAG	1.85	536	924	387	1.99	1.58	0.9	1.2	2.55	2.17	0.7	0.9
Karora Resources Inc.	KRR	3.03	75	33	-42	2.35	1.96	1.3	1.5	2.76	2.29	1.1	1.3
Lundin Gold Inc.	LUG	9.30	304	590	286	9.38	7.43	1.0	1.3	9.38	7.43	1.0	1.3
New Gold Inc.	NGD	1.11	280	407	127	1.11	1.21	1.0	0.9	1.49	1.52	0.7	0.7
OceanaGold Corporation	OGC	1.82	133	371	238	1.56	1.06	1.2	1.7	2.05	1.42	0.9	1.3
Orla Mining Ltd.	OLA	3.58	67	168	102	6.28	3.99	0.6	0.9	7.44	4.80	0.5	0.7
SSR Mining Inc	SSRM	15.01	1,058	493	-565	17.08	9.34	0.9	1.6	19.38	9.99	0.8	1.5
Torex Gold Resources Inc.	TXG	8.92	363	3	-360	15.13	11.96	0.6	0.7	17.91	14.12	0.5	0.6
Victoria Gold Corp.	VGCX	6.16	36	186	150	12.95	10.09	0.5	0.6	14.80	11.56	0.4	0.5
Yamana Gold Inc.	AUY	5.12	539	774	235	8.05	5.50	0.6	0.9	9.06	6.18	0.6	0.8
Peer Average			**310**	**291**	**-19**	**9.10**	**6.16**	**0.8**	**1.0**	**10.43**	**7.01**	**0.7**	**0.9**

Source: Company reports, FactSet and CIBC World Markets Inc.

* generally at 8% and 14% for Base Metal, Diversified & Specialty Miners

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Net Present Value, November 13, 2022

Net Present Value

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Share Price US$	Current Cash US$M	Current Debt US$M	Current Net Debt US$M	Using CIBC Assumptions NPV Per Share (US$)* 5%	Using CIBC Assumptions NPV Per Share (US$)* 10%	Using CIBC Assumptions P/NPV (x)* 5%	Using CIBC Assumptions P/NPV (x)* 10%	Using SPOT Assumptions NPV Per Share (US$)* 5%	Using SPOT Assumptions NPV Per Share (US$)* 10%	Using SPOT Assumptions P/NPV (x)* 5%	Using SPOT Assumptions P/NPV (x)* 10%
Gold Developers													
Artemis Gold	ARTG	3.39	105	1	-104	7.26	3.71	0.5	0.9	9.15	4.84	0.4	0.7
Ascot Resources	AOT	0.32	47	32	-14	0.75	0.48	0.4	0.7	0.93	0.61	0.3	0.5
Marathon Gold	MOZ	0.69	119	1	-118	1.07	0.58	0.6	1.2	1.35	0.79	0.5	0.9
O3 Mining Inc.	OIII	1.06	26	1	-25	3.47	1.91	0.3	0.6	4.54	2.67	0.2	0.4
Orezone Gold Corporation	ORE	0.94	24	98	74	1.87	1.42	0.5	0.7	2.12	1.60	0.4	0.6
Osisko Mining Inc.	OSK	2.80	97	71	-26	3.69	2.32	0.8	1.2	4.21	2.69	0.7	1.0
Probe Metals	PRB	0.97	34	0	-34	2.70	2.04	0.4	0.5	2.81	2.08	0.3	0.5
Skeena Resources	SKE	5.73	33	1	-31	12.14	8.81	0.5	0.7	13.92	10.07	0.4	0.6
Peer Average			**60**	**26**	**-35**	**4.99**	**3.14**	**0.6**	**0.9**	**5.92**	**3.74**	**0.5**	**0.8**
Silver Stocks													
Endeavour Silver Corp.	EDR	3.55	77	15	-62	2.77	1.90	1.3	1.9	3.06	2.10	1.2	1.7
Fortuna Silver Mines Inc.	FVI	3.49	108	187	79	3.01	2.07	1.2	1.7	3.41	2.33	1.0	1.5
Gatos Silver Inc.	GATO	3.89	12	13	0	3.09	2.81	1.3	1.4	3.08	2.77	1.3	1.4
Hecla Mining Company	HL	4.94	145	563	419	3.08	2.20	1.6	2.2	3.87	2.72	1.3	1.8
MAG Silver Corp.	MAG	16.18	45	0	-44	7.65	6.03	2.1	2.7	8.64	6.75	1.9	2.4
Pan American Silver Corp.	PAAS	15.45	187	68	-119	18.34	13.26	0.8	1.2	22.51	16.38	0.7	0.9
Peer Average			**96**	**194**	**109**	**8.86**	**6.48**	**1.4**	**1.8**	**10.71**	**7.83**	**1.1**	**1.6**
Base Metal													
Capstone Mining	CS	3.58	198	617	419	4.91	2.69	0.7	1.3	6.76	3.69	0.5	1.0
Copper Mountain Mining	CMMC	1.31	36	276	240	2.96	1.20	0.4	1.1	4.10	1.81	0.3	0.7
Ero Copper	ERO	12.85	360	418	58	16.50	12.46	0.8	1.0	23.70	17.71	0.5	0.7
First Quantum	FM	25.32	1,859	9,248	7,389	24.42	16.77	1.0	1.5	33.44	23.50	0.8	1.1
HudBay	HBM	5.48	287	1,249	963	8.90	5.99	0.6	0.9	12.14	8.47	0.5	0.6
Lundin Mining	LUN	6.21	227	49	-178	7.57	6.70	0.8	0.9	9.71	6.70	0.6	0.9
Sierra Metals	SMT	**R**											
Peer Average			**494**	**1,976**	**1,482**	**10.88**	**7.63**	**0.7**	**1.1**	**14.97**	**10.31**	**0.5**	**0.8**
Diversified & Specialty Miners													
Teck Resources	TECK.B	35.03	1,920	7,234	5,314	39.57	28.36	0.9	1.2	113.86	80.30	0.3	0.4
Cameco	CCO	**R**											
Largo Inc.	LGO	5.01	63	17	-46	30.15	26.01	0.2	0.2	30.15	26.01	0.2	0.2

Source: Company reports, FactSet and CIBC World Markets Inc.

* generally at 8% and 14% for Base Metal, Diversified & Specialty Miners

CIBC

Metals & Mining – Royalty Companies & Gold Producers - Earnings & Cash Flow, November 13, 2022

Earnings & Cash Flow

November 13, 2022

Company	Ticker	Reporting Currency	Using CIBC Assumptions															
			EPS				P/E				CFPS				P/CF			
			2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E
Royalty Stocks																		
Franco-Nevada Corporation	FNV	US$	2.71	3.52	3.67	2.95	>50	35.9	37.7	49.1	4.21	5.20	5.11	5.82	31.2	27.5	28.0	24.8
Maverix Metals	MMX	**R**																
Osisko Gold Royalties Ltd	OR	C$	0.34	0.56	0.52	0.42	>50	27.7	32.9	42.4	0.72	0.95	0.93	0.92	21.1	16.3	18.7	18.6
Royal Gold, Inc.	RGLD	US$	2.90	3.59	3.25	3.06	40.6	30.2	30.0	34.4	5.32	6.91	6.05	5.90	22.1	17.6	17.2	17.9
Sandstorm Gold Ltd.	SSL	C$	0.07	0.14	0.15	0.16	>50	49.1	38.1	35.3	0.35	0.42	0.37	0.41	21.7	17.0	9.5	14.6
Triple Flag Precious Metals	TFPM	**R**																
Wheaton Precious Metals Corp.	WPM	US$	1.13	1.31	1.20	1.39	39.5	32.2	31.6	27.3	1.61	1.88	1.71	2.03	25.5	22.5	22.2	18.7
Peer Average			**2.06**	**2.62**	**2.61**	**2.29**	**na**	**34.0**	**34.7**	**39.8**	**3.28**	**4.06**	**3.85**	**4.28**	**27.6**	**23.9**	**23.9**	**21.5**
Large Producers																		
Agnico-Eagle Mines Limited	AEM	US$	1.86	2.41	2.44	1.76	35.3	25.2	19.9	28.0	4.90	5.38	5.31	5.08	13.4	11.3	9.2	9.5
B2Gold Corp.	BTG	US$	0.49	0.36	0.23	0.17	10.1	10.9	13.0	15.9	0.90	0.68	0.56	0.62	6.0	6.5	6.4	5.7
Barrick Gold Corporation	GOLD	US$	1.15	1.16	0.77	0.74	21.2	17.9	21.5	22.1	3.05	2.46	2.09	2.41	8.0	8.4	7.9	6.8
Endeavour Mining Corporation	EDV	US$	2.28	2.40	1.66	1.28	9.8	9.5	15.6	16.7	5.10	4.79	4.18	4.08	4.4	4.8	5.0	5.2
Kinross Gold Corporation	KGC	US$	0.77	0.43	0.26	0.20	9.1	15.3	16.4	21.4	1.54	0.89	0.87	1.04	4.5	7.4	5.0	4.1
Newcrest Mining Limited	NCM	US$	0.95	1.42	1.03	0.94	21.8	13.4	12.9	14.1	1.87	2.82	1.92	1.92	11.1	6.8	6.9	6.9
Newmont Corporation	NEM	US$	2.65	2.95	1.86	2.14	21.8	20.5	25.1	21.8	6.06	5.35	3.92	4.64	9.5	11.3	11.9	10.0
Peer Average			**1.17**	**1.33**	**0.93**	**0.87**	**17.1**	**14.5**	**15.9**	**17.5**	**2.53**	**2.59**	**1.99**	**2.13**	**8.4**	**7.6**	**7.3**	**6.8**
Alamos Gold Inc.																		
Alamos Gold Inc.	AGI	US$	0.37	0.41	0.30	0.37	22.1	>50	>50	24.0	0.98	1.04	0.95	0.93	8.6	8.8	11.0	9.5
Centerra Gold Inc.	CG	US$	1.64	0.79	-0.11	0.48	5.9	10.8	>50	5.5	3.12	1.39	0.05	1.00	3.1	6.1	>50	3.4
Dundee Precious Metals Inc.	DPM	US$	1.05	1.09	0.64	0.57	5.5	6.5	8.3	9.3	1.09	1.61	1.13	1.22	5.3	4.0	4.7	4.4
Eldorado Gold Corporation	EGO	US$	0.98	0.66	0.08	0.36	10.3	>50	>50	19.9	2.23	2.01	1.15	1.71	4.5	5.1	6.2	4.1
Equinox Gold Corp.	EQX	US$	0.37	0.22	-0.31	0.06	26.7	36.2	>50	>50	0.77	0.99	0.25	0.81	12.9	8.1	14.4	4.5
i-80 Gold Corp	IAU	US$	na	na	-0.11	-0.01	na	na	>50	>50	na	na	-0.21	-0.01	na	na	>50	>50
IAMGOLD Corporation	IAG	US$	0.18	0.06	0.00	-0.01	19.8	>50	>50	>50	0.74	0.60	0.81	0.38	4.9	5.1	2.2	4.9
Karora Resources Inc.	KRR	C$	na	0.18	0.26	0.23	na	16.8	15.2	4.5	na	0.68	0.71	1.26	na	4.4	4.3	2.4
Lundin Gold Inc.	LUG	US$	0.46	1.06	0.75	0.51	17.8	10.9	15.0	10.9	0.65	1.59	1.61	1.18	12.7	6.1	8.1	6.0
New Gold Inc.	NGD	US$	0.03	0.12	-0.02	0.10	41.1	13.6	>50	>50	0.44	0.48	0.34	0.51	3.1	3.4	3.4	3.1
OceanaGold Corporation	OGC	US$	-0.10	0.20	0.18	0.16	>50	9.1	9.9	11.0	0.22	0.47	0.54	0.58	8.3	3.8	3.3	3.1
Orla Mining Ltd.	OLA	C$	-0.13	-0.11	0.25	0.25	>50	>50	17.9	17.1	-0.11	-0.10	0.32	0.31	>50	>50	12.8	13.1
SSR Mining Inc	SSRM	US$	1.40	1.78	1.12	0.94	13.4	9.3	17.9	15.4	1.69	2.80	2.34	2.12	10.0	5.9	9.4	7.2
Torex Gold Resources Inc.	TXG	US$	1.57	2.09	1.74	0.75	9.1	5.8	4.8	11.9	3.82	4.22	4.42	2.68	3.7	2.9	2.0	3.3
Victoria Gold Corp.	VGCX	C$	0.11	1.68	0.72	0.42	>50	9.2	18.2	20.4	1.14	2.85	1.94	1.79	10.9	5.4	6.6	3.8
Yamana Gold Inc.	AUY	US$	0.33	0.32	0.29	0.25	15.3	14.0	17.5	20.5	0.65	0.77	0.72	0.79	7.8	5.8	7.2	6.5
Peer Average			**0.38**	**0.73**	**0.38**	**0.33**	**9.1**	**8.6**	**11.2**	**13.3**	**0.99**	**1.40**	**1.03**	**1.10**	**6.8**	**4.5**	**6.6**	**5.5**

Source: Company reports, FactSet and CIBC World Markets Inc.

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Earnings & Cash Flow, November 13, 2022

Earnings & Cash Flow

November 13, 2022

Company	Ticker	Reporting Currency	Using CIBC Assumptions															
			EPS				P/E				CFPS				P/CF			
			2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E
Gold Developers																		
Artemis Gold	ARTG	C$	na	-0.10	-0.08	-0.07	na	>50	>50	>50	0.00	-0.04	-0.04	-0.04	na	>50	>50	>50
Ascot Resources	AOT	C$	na	-0.01	-0.02	-0.02	na	>50	>50	>50	-0.02	-0.02	-0.01	-0.01	>50	>50	>50	>50
Marathon Gold	MOZ	C$	na	-0.03	-0.02	-0.01	na	>50	>50	>50	na	-0.02	-0.02	-0.01	na	>50	>50	>50
O3 Mining Inc.	OIII	C$	na	0.07	0.26	-0.11	na	7.32	>50	>50	na	-0.08	-0.06	-0.04	na	>50	>50	>50
Orezone Gold Corporation	ORE	US$	-0.07	-0.02	0.06	0.28	>50	>50	14.7	3.3	-0.08	-0.02	0.08	0.38	>50	>50	11.1	2.4
Osisko Mining Inc.	OSK	C$	-0.03	-0.03	-0.08	-0.04	>50	>50	>50	>50	-0.04	-0.03	-0.04	-0.04	>50	>50	>50	>50
Probe Metals	PRB	C$	-0.12	-0.10	-0.24	-0.12	>50	>50	>50	>50	-0.11	-0.11	-0.23	-0.10	>50	>50	>50	>50
Skeena Resources	SKE	C$	na	-1.65	-0.77	-0.21	na	>50	>50	>50	-0.45	-1.59	-0.76	-0.12	>50	>50	>50	>50
Peer Average			**-0.08**	**-0.25**	**-0.10**	**0.04**	**na**	**na**	**na**	**na**	**-0.13**	**-0.26**	**-0.12**	**0.10**	**na**	**na**	**na**	**na**
Silver Stocks																		
Endeavour Silver Corp.	EDR	US$	0.01	-0.05	0.10	0.03	>50	>50	>50	>50	0.19	0.19	0.25	0.17	14.6	27.3	14.8	16.5
Fortuna Silver Mines Inc.	FVI	US$	0.16	0.41	0.19	0.37	32.5	13.9	20.8	10.2	0.54	0.77	0.75	0.82	9.0	7.2	4.7	4.4
Gatos Silver Inc.	GATO	US$	na	0.27	0.63	0.39	na	49.7	6.2	9.9	na	1.14	1.27	0.82	na	11.7	3.1	4.8
Hecla Mining Company	HL	US$	0.05	0.14	0.03	0.16	>50	47.0	>50	23.7	0.31	0.37	0.25	0.39	13.5	15.7	31.1	10.5
MAG Silver Corp.	MAG	US$	-0.08	0.06	0.42	0.91	>50	>50	>50	17.7	-0.06	-0.07	-0.13	-0.33	>50	>50	>50	>50
Pan American Silver Corp.	PAAS	US$	1.16	0.77	0.24	0.74	24.0	>50	>50	22.6	1.74	2.20	1.41	2.08	16.0	15.5	11.7	7.4
Peer Average			**0.23**	**0.23**	**0.36**	**0.53**	**6.2**	**21.1**	**2.2**	**15.3**	**0.45**	**0.72**	**0.60**	**0.54**	**8.4**	**10.7**	**8.7**	**5.7**
Base Metal																		
Capstone Mining	CS	US$	0.06	0.59	0.17	0.29	12.7	6.5	21.3	12.3	0.34	0.85	0.35	0.63	2.4	4.5	10.3	5.7
Copper Mountain Mining	CMMC	C$	0.11	0.62	-0.05	0.50	7.5	5.5	>50	8.2	0.61	1.46	0.27	1.38	1.3	2.3	17.8	2.0
Ero Copper	ERO	US$	1.27	2.33	1.05	1.34	10.4	8.0	12.3	8.5	1.93	3.11	2.00	2.24	6.9	6.0	6.5	5.2
First Quantum	FM	US$	-0.07	1.20	1.57	1.33	>50	17.8	16.1	19.0	2.64	4.33	3.60	3.15	3.4	4.9	7.0	8.0
HudBay	HBM	US$	-0.46	0.24	0.14	0.64	>50	29.4	39.4	8.5	0.93	1.85	1.63	2.16	4.0	3.7	3.4	2.5
Lundin Mining	LUN	US$	0.31	1.12	0.54	0.85	18.2	8.4	11.4	7.3	0.88	2.01	1.23	1.44	6.5	4.7	5.0	4.3
Sierra Metals	SMT	**R**																
Peer Average			**0.67**	**1.49**	**0.72**	**0.98**	**6.5**	**10.6**	**14.6**	**7.7**	**1.43**	**2.40**	**1.62**	**1.87**	**4.9**	**4.5**	**5.5**	**4.0**
Diversified & Specialty Miners																		
Teck Resources	TECK.B	C$	-0.15	5.66	9.34	7.14	>50	4.5	4.0	5.1	3.37	10.39	15.34	11.04	3.7	2.3	2.4	3.3
Cameco	CCO	**R**																
Largo Inc.	LGO	US$	0.11	0.35	0.24	1.42	>50	39.2	21.0	3.5	-0.03	0.72	0.81	2.14	>50	18.8	6.2	2.3

Source: Company reports, FactSet and CIBC World Markets Inc.

CIBC

Metals & Mining – Royalty Companies & Gold Producers - Free Cash Flow & EBITDA, November 13, 2022

Free Cash Flow & EBITDA

November 13, 2022

Company	Ticker	Using CIBC Assumptions															
		Free Cash Flow (US$M)				Free Cash Flow Yield				EBITDA (US$M)				EV/EBITDA			
		2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E
Royalty Stocks																	
Franco-Nevada Corporation	FNV	495	195	938	845	1.8%	0.7%	3.5%	3.1%	840	1,157	1,108	1,061	28.1	21.8	23.6	24.6
Maverix Metals	MMX	**R**															
Osisko Gold Royalties Ltd	OR	-92	47	24	103	-3.8%	2.0%	1.0%	4.3%	64	130	127	120	29.4	17.5	19.0	20.1
Royal Gold, Inc.	RGLD	193	239	-315	386	2.8%	3.5%	-4.6%	5.6%	376	491	451	475	19.0	13.8	16.1	15.3
Sandstorm Gold Ltd.	SSL	141	-30	-436	108	9.0%	-1.9%	-27.8%	6.9%	57	81	156	117	24.6	15.9	11.7	15.6
Triple Flag Precious Metals	TFPM	**R**															
Wheaton Precious Metals Corp.	WPM	875	444	393	94	5.1%	2.6%	2.3%	0.6%	764	853	781	916	24.3	20.8	21.4	18.2
Peer Average		**322**	**179**	**121**	**307**	**2.9%**	**1.6%**	**1.1%**	**2.8%**	**420**	**542**	**525**	**538**	**25.0**	**19.7**	**20.7**	**20.2**
Large Producers																	
Agnico-Eagle Mines Limited	AEM	433	449	785	690	1.9%	2.0%	3.5%	3.1%	1,494	1,734	2,474	2,961	11.3	8.8	9.2	7.7
B2Gold Corp.	BTG	598	422	281	383	15.7%	11.1%	7.4%	10.1%	1,352	1,117	914	827	4.0	3.5	3.7	4.1
Barrick Gold Corporation	GOLD	3,363	1,943	775	1,108	11.6%	6.7%	2.7%	3.8%	7,501	7,089	5,522	5,411	6.9	6.1	6.8	6.9
Endeavour Mining Corporation	EDV	513	644	441	222	10.3%	12.9%	8.9%	4.5%	465	1,139	1,243	1,160	7.6	5.0	4.4	4.7
Kinross Gold Corporation	KGC	1,042	197	276	371	18.6%	3.5%	4.9%	6.6%	2,758	1,408	1,419	1,468	3.6	6.2	5.5	5.3
Newcrest Mining Limited	NCM	-621	1,079	154	167	-5.2%	9.1%	1.3%	1.4%	1,728	2,447	2,060	2,256	na	na	6.1	5.6
Newmont Corporation	NEM	3,580	2,627	993	1,619	9.7%	7.1%	2.7%	4.4%	6,728	3,866	4,393	4,961	7.3	12.8	9.0	8.0
Peer Average		**1,272**	**1,051**	**529**	**651**	**7.8%**	**6.4%**	**3.2%**	**4.0%**	**3,146**	**2,686**	**2,575**	**2,721**	**6.8**	**7.7**	**7.2**	**6.8**
SMID Gold Producers																	
Alamos Gold Inc.	AGI	125	25	3	63	3.6%	0.7%	0.1%	1.8%	372	173	290	370	7.9	15.8	11.5	9.0
Centerra Gold Inc.	CG	604	322	-101	289	51.8%	27.6%	-8.6%	24.8%	766	528	199	498	3.5	2.8	3.6	1.5
Dundee Precious Metals Inc.	DPM	156	234	141	122	15.4%	23.1%	13.9%	12.0%	319	328	248	259	3.7	2.7	2.4	2.3
Eldorado Gold Corporation	EGO	221	87	-101	-598	16.9%	6.6%	-7.7%	-45.6%	475	427	429	394	4.0	4.2	3.5	3.8
Equinox Gold Corp.	EQX	44	-25	-542	-298	3.9%	-2.3%	-48.8%	-26.8%	213	773	136	298	12.5	3.1	12.1	5.5
i-80 Gold Corp	IAU	na	na	-93	-23	na	na	-18.4%	-4.6%	na	na	-11	12	na	>50	>50	41.8
IAMGOLD Corporation	IAG	58	-339	-550	-820	6.5%	-38.2%	-62.0%	-92.5%	379	25	253	222	3.6	42.1	5.3	6.0
Karora Resources Inc.	KRR	na	12	-57	168	0.0%	2.0%	-8.3%	23.6%	na	79	107	212	na	na	4.8	2.5
Lundin Gold Inc.	LUG	122	284	251	354	5.6%	13.0%	11.5%	16.2%	37	451	421	505	69.5	5.4	5.9	4.9
New Gold Inc.	NGD	11	76	-89	-107	1.4%	10.1%	-11.8%	-14.1%	196	391	165	243	6.7	3.4	5.3	3.6
OceanaGold Corporation	OGC	-55	-15	90	36	-4.3%	-1.1%	7.0%	2.8%	139	166	358	448	8.9	8.5	4.1	3.2
Orla Mining Ltd.	OLA	-54	-117	61	84	-4.5%	-9.8%	5.1%	7.1%	-24	-22	107	126	>50	>50	12.2	10.3
SSR Mining Inc	SSRM	231	338	153	185	7.4%	10.9%	4.9%	6.0%	379	704	487	503	7.4	5.0	6.6	6.4
Torex Gold Resources Inc.	TXG	187	135	119	-300	24.4%	17.6%	15.6%	-39.3%	409	505	495	374	2.8	1.6	0.8	1.1
Victoria Gold Corp.	VGCX	23	27	-35	37	5.9%	6.7%	-8.8%	9.4%	46	173	103	120	16.1	5.8	5.4	4.6
Yamana Gold Inc.	AUY	344	358	212	396	7.0%	7.3%	4.3%	8.1%	962	967	888	891	5.8	5.3	6.7	6.7
Peer Average		**144**	**93**	**-34**	**-26**	**9.4%**	**4.9%**	**-7.0%**	**-7.0%**	**334**	**378**	**292**	**342**	**11.7**	**8.1**	**6.0**	**7.1**

Source: Company reports, FactSet and CIBC World Markets Inc.

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Free Cash Flow & EBITDA, November 13, 2022

Free Cash Flow & EBITDA

November 13, 2022

Company	Ticker	Using CIBC Assumptions															
		Free Cash Flow (US$M)				Free Cash Flow Yield				EBITDA (US$M)				EV/EBITDA			
		2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E
Gold Developers																	
Artemis Gold	ARTG	na	-71	-46	-286	0.0%	-13.0%	-8.7%	-54.9%	na	-11	-10	-10	na	>50	>50	>50
Ascot Resources	AOT	-14	-50	-72	-139	-10.1%	-33.7%	-49.4%	-98.0%	-5	-1	-3	-7	>50	>50	>50	>50
Marathon Gold	MOZ	-23	-47	-58	-308	-8.6%	-17.3%	-21.4%	-113.6%	-7	-10	-7	-6	>50	>50	>50	>50
O3 Mining Inc.	OIII	-22	-43	-27	-15	-30.3%	-59.1%	-36.5%	-20.2%	6	23	-3	-5	13.1	2.9	>50	>50
Orezone Gold Corporation	ORE	-26	-92	-103	120	-8.4%	-29.6%	-33.3%	38.7%	-18	-19	43	179	>50	>50	9.0	2.2
Osisko Mining Inc.	OSK	-105	-157	-159	-179	-10.8%	-16.1%	-16.4%	-18.4%	4	3	10	-8	164.4	232.8	92.7	>50
Probe Metals	PRB	-15	-13	-34	-16	-10.4%	-9.2%	-24.4%	-11.4%	-20	-17	-37	-18	>50	>50	>50	>50
Skeena Resources	SKE	-59	-100	-66	-53	-15.1%	-23.8%	-16.1%	-13.2%	-44	-94	-42	-13	>50	>50	>50	>50
Peer Average		**-38**	**-72**	**-71**	**-109**	**-9.0%**	**-19.5%**	**-19.3%**	**-32.0%**	**-12**	**-16**	**-6**	**14**	**69.6**	**76.4**	**31.3**	**0.2**
Silver Stocks																	
Endeavour Silver Corp.	EDR	9	2	-9	-74	1.3%	0.4%	-1.4%	-11.0%	27	46	47	46	16.1	16.3	12.9	13.2
Fortuna Silver Mines Inc.	FVI	85	136	25	95	8.4%	13.4%	2.5%	9.3%	100	258	256	310	10.8	4.8	4.7	3.9
Gato Silver Inc.	GATO	na	-19	24	22	na	-7.2%	8.9%	8.0%	na	71	95	67	>50	11.2	2.8	3.9
Hecla Mining Company	HL	79	118	211	131	2.6%	3.9%	7.0%	4.4%	209	255	138	336	12.8	14.6	22.9	9.4
MAG Silver Corp.	MAG	-6	-81	-68	-72	-0.4%	-5.1%	-4.3%	-4.5%	-9	-3	46	107	>50	>50	33.4	14.5
Pan American Silver Corp.	PAAS	183	312	7	310	5.6%	9.6%	0.2%	9.5%	538	564	273	928	10.7	9.8	11.5	3.4
Peer Average		**70**	**78**	**32**	**69**	**3.7%**	**4.8%**	**1.9%**	**4.2%**	**173**	**198**	**143**	**299**	**11.5**	**10.1**	**11.6**	**5.5**
Base Metal																	
Capstone Mining	CS	38	218	-437	60	1.5%	8.8%	-17.7%	2.4%	128	432	388	534	5.2	3.4	8.2	6.0
Copper Mountain Mining	CMMC	62	160	-67	123	22.2%	57.4%	-24.2%	44.2%	75	229	20	134	5.4	3.5	29.0	4.4
Ero Copper	ERO	57	120	-102	-127	4.9%	10.3%	-8.8%	-10.9%	190	332	209	241	6.9	5.3	5.9	5.1
First Quantum	FM	1,206	2,002	1,352	673	6.9%	11.4%	7.7%	3.8%	2,183	3,684	3,304	3,195	7.8	6.3	7.4	7.6
HudBay	HBM	-119	106	99	262	-8.3%	7.4%	6.9%	18.3%	310	547	541	814	5.8	4.9	4.4	2.9
Lundin Mining	LUN	213	955	-2	20	4.4%	19.8%	0.0%	0.4%	857	1,869	1,263	1,746	5.8	3.7	4.1	3.0
Sierra Metals	SMT	**R**															
Peer Average		**243**	**594**	**140**	**169**	**5.3%**	**19.2%**	**-6.0%**	**9.7%**	**624**	**1,182**	**954**	**1,111**	**6.1**	**4.5**	**9.8**	**4.8**
Diversified & Specialty Miners																	
Teck Resources	TECK.B	-988	1,249	3,050	2,188	-5.3%	6.7%	16.5%	11.8%	1,831	5,242	7,502	6,227	6.8	3.7	3.2	3.9
Cameco	CCO	**R**															
Largo Inc.	LGO	67	-57	16	3	20.9%	-17.8%	4.9%	0.9%	12	25	54	54	43.2	15.5	14.9	5.2

Source: Company reports, FactSet and CIBC World Markets Inc.

Metals & Mining – Royalty Companies & Gold Producers - Sensitivity – Cash Flow, Free Cash Flow & Net Debt, November 13, 2022

Sensitivity - Cash Flow, Free Cash Flow & Net Debt

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Share Price US$	Cash Flow Per Share (US$)				Free Cash Flow Per Share (US$)				Net Debt (US$M)			
			Spot		Spot +10%		Spot		Spot +10%		Spot		Spot +10%	
			2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E
Royalty Stocks														
Franco-Nevada Corporation	FNV	141.66	5.01	5.72	5.12	6.12	4.84	4.42	4.95	4.82	-1,181	-1,825	-1,202	-1,923
Maverix Metals	MMX	R												
Osisko Gold Royalties Ltd*	OR	12.99	0.91	0.92	0.92	0.99	0.12	0.55	0.13	0.61	195	146	193	134
Royal Gold, Inc.	RGLD	105.10	6.04	5.90	6.18	6.58	-4.87	5.90	-4.73	6.58	259	-37	249	-92
Sandstorm Gold Ltd.	SSL	5.27	0.55	0.35	0.56	0.40	-1.47	0.35	-1.46	0.40	387	301	384	283
Triple Flag Precious Metals	TFPM	R												
Wheaton Precious Metals Corp.	WPM	37.99	1.67	2.00	1.69	2.26	0.83	0.18	0.85	0.44	-360	-262	-370	-387
Peer Average			**3.79**	**4.22**	**3.87**	**4.59**	**1.99**	**3.00**	**2.07**	**3.37**	**-140**	**-335**	**-149**	**-397**
Large Producers														
Agnico-Eagle Mines Limited	AEM	48.70	5.24	5.23	5.47	6.12	1.73	1.72	1.97	2.72	607	1,726	501	1,186
B2Gold Corp.	BTG	3.58	0.58	0.64	0.62	0.74	0.29	0.37	0.33	0.48	-644	-817	-686	-961
Barrick Gold Corporation	GOLD	16.44	2.19	2.46	2.34	2.99	0.54	0.68	0.68	1.20	-2	532	-197	-369
Endeavour Mining Corporation	EDV	20.25	4.04	4.04	4.06	4.70	1.78	1.01	1.80	1.68	-58	-72	-62	-240
Kinross Gold Corporation	KGC	4.31	0.85	1.08	0.91	1.33	0.20	0.31	0.25	0.52	2,136	2,018	2,061	1,676
Newcrest Mining Limited	NCM	13.29	1.92	1.92	1.92	2.18	0.17	0.19	0.17	0.46	1,214	1,208	1,214	964
Newmont Corporation	NEM	46.53	4.10	4.57	4.38	5.57	1.43	1.97	1.71	2.97	2,400	2,375	2,177	1,379
Peer Average			**3.33**	**3.56**	**3.51**	**4.26**	**1.05**	**1.23**	**1.23**	**1.95**	**807**	**996**	**716**	**519**
SMID Gold Producers														
Alamos Gold Inc.	AGI	8.88	0.79	0.96	0.83	1.15	0.00	0.19	0.04	0.38	-137	-196	-152	-286
Centerra Gold Inc.	CG	5.30	0.00	1.61	0.06	1.92	-0.47	1.34	-0.41	1.69	-521	-740	-535	-831
Dundee Precious Metals Inc.	DPM	5.33	1.12	1.25	1.17	1.49	0.73	0.66	0.78	0.91	-458	-554	-469	-612
Eldorado Gold Corporation	EGO	7.10	1.09	1.71	1.22	2.18	-0.60	-3.25	-0.47	-2.77	208	809	185	698
Equinox Gold Corp.	EQX	3.64	0.23	0.85	0.30	1.12	-1.80	-0.94	-1.72	-0.66	733	859	711	752
i-80 Gold Corp.	IAU	2.11	-0.19	-0.01	-0.18	0.01	-0.39	-0.09	-0.38	-0.07	40	56	39	49
IAMGOLD Corporation	IAG	1.85	0.83	0.40	0.86	0.55	-1.16	-1.68	-1.12	-1.50	580	615	564	510
Karora Resources Inc.	KRR	3.03	0.70	1.29	0.75	1.52	-0.38	1.12	-0.32	1.38	-48	-216	-58	-266
Lundin Gold Inc.	LUG	9.30	1.15	1.55	1.15	1.55	1.07	1.51	1.07	1.51	317	34	317	34
New Gold Inc.	NGD	1.11	0.32	0.37	0.34	0.48	-0.14	-0.15	-0.11	-0.04	201	390	185	302
OceanaGold Corporation	OGC	1.82	0.54	0.61	0.57	0.74	0.12	0.07	0.15	0.20	231	184	208	69
Orla Mining Ltd. *	OLA	3.58	0.28	0.27	0.29	0.32	0.24	0.30	0.25	0.35	29	-40	26	-58
SSR Mining Inc	SSRM	15.01	1.51	2.03	1.65	2.52	0.66	0.84	0.80	1.33	-371	-728	-401	-822
Torex Gold Resources Inc.	TXG	8.92	4.42	2.75	4.50	3.07	1.36	-3.46	1.44	-3.14	-187	-172	-194	-207
Victoria Gold Corp.*	VGCX	6.16	0.97	1.59	1.07	1.95	-0.48	0.55	-0.38	0.93	172	145	165	114
Yamana Gold Inc.	AUY	5.12	0.70	0.79	0.73	0.92	0.20	0.42	0.24	0.55	238	20	208	-134
Peer Average			**0.91**	**1.16**	**0.96**	**1.37**	**0.10**	**0.10**	**0.16**	**0.32**	**64**	**29**	**50**	**-43**

Source: Company reports, FactSet and CIBC World Markets Inc.

*Cash Flow Per Share In C$

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Sensitivity – Cash Flow, Free Cash Flow & Net Debt, November 13, 2022

Sensitivity - Cash Flow, Free Cash Flow & Net Debt

SPOT = Gold US$1,774/oz; Silver US$21.80/oz; Copper US$3.94/lb; Lead US$0.98/lb; Zinc US$1.36/lb

November 13, 2022

Company	Ticker	Share Price US$	Cash Flow Per Share (US$)				Free Cash Flow Per Share (US$)				Net Debt (US$M)			
			Spot		Spot +10%		Spot		Spot +10%		Spot		Spot +10%	
			2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E	2022E	2023E
Gold Developers														
Artemis Gold*	ARTG	3.39	-0.03	-0.03	-0.03	-0.03	-0.24	-1.48	-0.24	-1.48	-47	37	-47	37
Ascot Resources*	AOT	0.32	-0.01	-0.01	-0.01	-0.01	-0.16	-0.32	-0.16	-0.32	13	194	13	194
Marathon Gold*	MOZ	0.69	-0.02	-0.01	-0.02	-0.01	-0.15	-0.78	-0.15	-0.78	-165	144	-165	144
O3 Mining Inc.*	OIII	1.06	-0.06	-0.04	-0.06	-0.04	-0.39	-0.21	-0.39	-0.21	-14	-3	-14	-3
Orezone Gold Corporation*	ORE	0.94	0.08	0.39	0.09	0.44	-0.31	0.37	-0.30	0.42	83	-75	79	-98
Osisko Mining Inc. *	OSK	2.80	-0.04	-0.04	-0.04	-0.04	-0.45	-0.51	-0.45	-0.51	49	228	49	228
Probe Metals*	PRB	0.97	-0.23	-0.10	-0.23	-0.10	-0.24	-0.11	-0.24	-0.11	-24	-8	-24	-8
Skeena Resources*	SKE	5.73	-0.59	-0.09	-0.59	-0.09	-0.94	-0.76	-0.94	-0.76	-23	-34	-23	-34
Peer Average			**-0.10**	**0.00**	**-0.10**	**0.01**	**-0.40**	**-0.66**	**-0.40**	**-0.65**	**-16**	**60**	**-17**	**58**
Silver Stocks														
Endeavour Silver Corp.	EDR	3.55	0.21	0.19	0.23	0.27	-0.08	-0.41	-0.06	-0.33	-42	38	-46	20
Fortuna Silver Mines Inc.	FVI	3.49	0.71	0.75	0.75	0.91	0.05	0.29	0.09	0.45	111	48	100	-7
Gato Silver Inc.	GATO	3.89	1.01	0.53	1.29	0.74	0.21	0.02	0.27	0.24	-2	-3	-6	-22
Hecla Mining Company	HL	4.94	0.12	0.40	0.15	0.51	0.35	0.18	0.35	0.20	426	347	408	261
MAG Silver Corp.	MAG	16.18	-0.14	-0.31	-0.14	-0.34	-0.69	-0.70	-0.70	-0.73	-59	-134	-64	-159
Pan American Silver Corp.	PAAS	15.45	1.18	1.99	1.37	2.44	-0.11	1.29	0.08	2.08	4	-166	-36	-371
Peer Average			**0.52**	**0.84**	**0.61**	**1.05**	**-0.04**	**0.37**	**0.03**	**0.66**	**73**	**22**	**59**	**-46**
Base Metal														
Capstone Mining	CS	3.58	0.34	0.62	0.37	0.72	-0.70	0.08	-0.67	0.18	477	301	455	214
Copper Mountain Mining*	CMMC	1.31	0.09	0.88	0.13	1.28	-0.33	0.58	-0.29	0.79	273	157	260	65
Ero Copper	ERO	12.85	1.95	2.36	2.10	2.98	-1.15	-1.49	-1.00	-0.87	251	412	237	341
First Quantum	FM	25.32	3.85	3.51	4.05	4.22	2.20	1.34	2.40	2.04	4,991	4,198	4,852	3,622
HudBay	HBM	5.48	1.59	2.15	1.72	2.68	0.33	0.99	0.46	1.52	893	677	855	475
Lundin Mining	LUN	6.21	1.19	1.37	1.25	1.67	-0.04	-0.04	0.02	0.26	68	351	14	49
Sierra Metals	SMT	**R**												
Peer Average			**2.84**	**2.73**	**2.99**	**3.30**	**1.29**	**0.84**	**1.44**	**1.40**	**3,270**	**2,796**	**3,168**	**2,358**
Diversified & Specialty Miners														
Teck Resources*	TECK.B	35.03	16.07	15.96	17.00	20.60	6.32	7.84	6.85	10.29	3,207	-47	2,751	-1,685
Cameco	CCO	**R**												
Largo Inc.	LGO	5.01	0.81	2.14	0.81	2.14	0.25	0.04	0.25	0.04	-53	-13	-53	-13

Source: Company reports, FactSet and CIBC World Markets Inc.

*Cash Flow Per Share In C$

Metals & Mining – Royalty Companies & Gold Producers - Financial Data, November 13, 2022

Financial Data

November 13, 2022

Company	Ticker	Share Price US$	Shares Out M	Market Cap US$M	Enterprise Value US$M	Net Debt US$M	Shareholder Equity US$M	Total Assets US$M	Net Debt to M.Cap %	Debt to Equity x	ROE*[1] %	ROTA*[2] %	Book Value US$/sh	Price to Book x	Dividend per share US$	Dividend Yield %
Royalty Stocks																
Franco-Nevada Corporation	FNV	141.66	192	27,116	26,112	-1,052	6,251	6,444	-4%	0.00	13%	12%	32.9	4.3	1.28	0.9%
Maverix Metals	MMX	**R**														
Osisko Gold Royalties Ltd	OR	12.99	184	2,394	2,403	4	1,257	1,554	0%	0.18	-1%	-1%	7.5	1.7	0.17	1.3%
Royal Gold, Inc.	RGLD	105.10	66	6,899	7,243	330	2,708	3,377	5%	0.17	13%	11%	41.3	2.5	1.40	1.3%
Sandstorm Gold Ltd.	SSL	5.27	298	1,569	1,828	-14	593	621	-1%	0.00	4%	4%	4.8	1.1	0.06	1.1%
Triple Flag Precious Metals	TFPM	**R**														
Wheaton Precious Metals Corp.	WPM	37.99	452	17,160	16,688	-492	6,549	6,594	-3%	0.00	13%	12%	14.5	2.6	0.60	1.6%
Peer Average				**11,027**	**10,855**	**-245**	**3,472**	**3,718**	**-2%**	**0.03**	**12%**	**11%**	**26.3**	**3.4**		
Large Producers																
Agnico-Eagle Mines Limited	AEM	48.70	456	22,203	22,843	640	16,127	23,274	3%	0.09	9%	5%	35.4	1.4	1.60	3.3%
B2Gold Corp.	BTG	3.58	1,063	3,805	3,388	-487	2,884	3,518	-13%	0.02	15%	12%	2.7	1.3	0.16	4.5%
Barrick Gold Corporation	GOLD	16.44	1,771	29,115	37,366	-130	23,857	46,890	0%	0.22	9%	4%	13.5	1.2	0.65	4.0%
Endeavour Mining Corporation	EDV	20.25	246	4,980	5,509	48	3,937	6,686	1%	0.22	7%	4%	15.3	1.3	0.61	3.0%
Kinross Gold Corporation	KGC	4.31	1,300	5,603	7,752	2,056	6,177	10,540	37%	0.41	3%	2%	4.8	0.9	0.12	2.8%
Newcrest Mining Limited	NCM	13.29	891	11,838	12,556	1,325	11,665	17,359	11%	0.16	8%	5%	12.2	1.1	0.27	2.0%
Newmont Corporation	NEM	46.53	794	36,933	39,486	2,314	21,219	39,143	6%	0.29	5%	3%	26.8	1.7	2.20	4.7%
Peer Average				**16,354**	**18,414**	**824**	**12,267**	**21,058**	**5%**	**0.21**	**7%**	**4%**	**21.2**	**1.4**		
SMID Gold Producers																
Alamos Gold Inc.	AGI	8.88	393	3,483	3,345	-132	2,674	3,599	-4%	0.00	-2%	-2%	6.9	1.3	0.10	1.1%
Centerra Gold Inc.	CG	5.30	220	1,166	727	-576	1,961	2,450	-49%	0.00	20%	15%	6.7	0.8	0.21	4.0%
Dundee Precious Metals Inc.	DPM	5.33	190	1,015	607	-410	954	868	-40%	0.01	21%	0%	5.1	1.0	0.16	3.0%
Eldorado Gold Corporation	EGO	7.10	185	1,311	1,512	208	3,161	4,412	16%	0.16	0%	0%	17.1	0.4		
Equinox Gold Corp.	EQX	3.64	305	1,111	1,650	41	345	486	4%	0.19	-8%	-6%	7.4	0.5		
i-80 Gold Corp.	IAU	2.11	240	507	531	13	408	697	3%	0.28	39%	19%	1.6	1.3		
IAMGOLD Corporation	IAG	1.85	479	886	1,343	387	2,141	4,248	44%	0.43	-11%	-6%	4.7	0.4		
Karora Resources Inc.	KRR	3.03	154	521	520	-42	199	345	-8%	0.17	12%	7%	1.4	2.2		
Lundin Gold Inc.	LUG	9.30	235	2,186	2,488	286	814	1,635	13%	0.72	31%	14%	3.7	2.5	0.40	4.3%
New Gold Inc.	NGD	1.11	682	757	878	127	1,023	2,255	17%	0.40	16%	6%	1.5	0.7		
OceanaGold Corporation	OGC	1.82	704	1,279	1,453	238	1,549	2,331	19%	0.24	0%	0%	2.3	0.8		
Orla Mining Ltd.	OLA	3.58	302	1,080	1,007	102	217	417	9%	0.77	-15%	-9%	0.8	4.5		
SSR Mining Inc	SSRM	15.01	207	3,101	3,231	-565	3,538	4,995	-18%	0.14	11%	7%	17.1	0.9	0.28	1.9%
Torex Gold Resources Inc.	TXG	8.92	86	765	406	-360	1,255	1,499	-47%	0.00	15%	11%	13.3	0.7		
Victoria Gold Corp.	VGCX	6.16	64	397	556	150	388	737	38%	0.48	26%	13%	6.1	1.0		
Yamana Gold Inc.	AUY	5.12	961	4,920	5,984	235	4,398	8,390	5%	0.18	3%	2%	4.6	1.1	0.12	2.3%
Peer Average				**1,530**	**1,640**	**-19**	**1,564**	**2,460**	**-1%**	**0.23**	**7%**	**3%**	**7.1**	**1.3**		

Source: Company reports, FactSet and CIBC World Markets Inc.

*[1] ROE=NPAT/Shareholder Equity; *[2] ROTA=EBIT/Total Assets.

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Financial Data, November 13, 2022

Financial Data

November 13, 2022

Company	Ticker	Share Price US$	Shares Out M	Market Cap US$M	Enterprise Value US$M	Net Debt US$M	Shareholder Equity US$M	Total Assets US$M	Net Debt to M.Cap %	Debt to Equity x	ROE*1 %	ROTA*2 %	Book Value US$/sh	Price to Book x	Dividend per share US$	Dividend Yield %
Gold Developers																
Artemis Gold	ARTG	3.39	193	655	475	-104	332	372	-16%	0.00	-4%	-3%	1.9	1.8		
Ascot Resources	AOT	0.32	436	141	127	-14	204	310	-10%	0.16	-1%	-1%	0.5	0.6		
Marathon Gold	MOZ	0.69	396	272	152	-118	270	291	-43%	0.00	-4%	-3%	0.7	1.0		
O3 Mining Inc.	OIII	1.06	68	73	51	-25	177	199	-34%	0.01	9%	9%	2.5	0.4		
Orezone Gold Corporation	ORE	0.94	333	311	390	74	71	217	24%	1.38	-44%	-24%	0.2	4.7		
Osisko Mining Inc.	OSK	2.80	347	972	946	-26	519	757	-3%	0.14	-3%	-2%	1.5	1.8		
Probe Metals	PRB	0.97	145	141	109	-34	32	37	-24%	0.01	-41%	-35%	0.2	4.9		
Skeena Resources	SKE	5.73	70	400	368	-31	98	117	-8%	0.01	-101%	-80%	1.3	4.3		
Peer Average				**371**	**327**	**-35**	**213**	**287**	**-9%**	**0.20**	**-22%**	**-17%**	**1.3**	**2.4**		
Silver Stocks																
Endeavour Silver Corp.	EDR	3.55	190	672	608	-62	307	373	-9%	0.05	7%	5%	1.5	2.4		
Fortuna Silver Mines Inc.	FVI	3.49	291	1,017	1,206	79	1,375	2,022	8%	0.14	5%	4%	4.5	0.8		
Gatos Silver Inc.	GATO	3.89	69	269	262	0	261	408	0%	0.05	-17%	-17%	5.7	0.7		
Hecla Mining Company	HL	4.94	606	2,995	3,158	419	1,955	2,935	14%	0.29	2%	1%	3.3	1.5	0.02	0.3%
MAG Silver Corp.	MAG	16.18	99	1,596	1,549	-44	391	396	-3%	0.00	2%	2%	3.7	4.3		
Pan American Silver Corp.	PAAS	15.45	211	3,253	3,139	-119	2,358	3,200	-4%	0.03	4%	3%	11.7	1.3	0.40	2.6%
Peer Average				**1,634**	**1,654**	**45**	**1,108**	**1,555**	**3%**	**0.12**	**3%**	**2%**	**6.2**	**1.9**		
Base Metal																
Capstone Mining	CS	3.58	690	2,471	3,196	419	2,789	5,261	17%	0.22	-18%	14%	4.0	0.9		
Copper Mountain Mining	CMMC	1.31	214	279	592	240	240	742	86%	1.15	33%	12%	1.2	1.0		
Ero Copper	ERO	12.85	91	1,166	1,241	58	485	1,104	5%	0.86	66%	34%	5.4	2.4		
First Quantum	FM	25.32	692	17,501	24,381	7,389	10,018	25,270	42%	0.92	9%	-200%	15.8	1.6	0.25	1.0%
HudBay	HBM	5.48	262	1,435	2,398	963	1,571	4,288	67%	0.80	-15%	-5%	6.0	0.9	0.02	0.3%
Lundin Mining	LUN	6.21	778	4,824	5,199	-178	4,675	7,772	-4%	0.01	18%	10%	6.1	1.0	0.27	4.4%
Sierra Metals	SMT	**R**														
Peer Average				**4,613**	**6,168**	**1,482**	**3,296**	**7,406**	**32%**	**0.69**	**9%**	**-122%**	**12.0**	**1.4**		
Diversified & Specialty Miners																
Teck Resources	TECK.B	35.03	530	18,533	24,275	5,314	18,351	36,625	29%	0.39	13%	6%	36.1	1.0	0.38	1.1%
Cameco	CCO	**R**														
Largo Inc.	LGO	5.01	64	321	285	-46	274	348	-14%	0.06	9%	7%	4.24	1.18		

Source: Company reports, FactSet and CIBC World Markets Inc.

*1 ROE=NPAT/Shareholder Equity; *2 ROTA=EBIT/Total Assets.

Metals & Mining – Gold & Silver Production & Costs, November 13, 2022

Gold and Silver Production & Costs

November 13, 2022

Company	Ticker	Gold Production (000oz)				By-Product Total Cash Costs (US$/oz)				All-In-Sustaining-Costs (US$/oz)				All-In-Costs (US$/oz)			
		2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E	2020A	2021A	2022E	2023E
Royalty Stocks																	
Franco-Nevada Corporation	FNV	573	728	722	732	292	273	244	265	-	-	-	-	-	-	-	-
Maverix Metals	R																
Osisko Gold Royalties Ltd	OR	66	80	90	112	95	127	156	128	-	-	-	-	-	-	-	-
Royal Gold, Inc.	RGLD	320	333	322	361	384	403	420	418	-	-	-	-	-	-	-	-
Sandstorm Gold Ltd.	SSL	52	68	86	106	300	249	301	283	-	-	-	-	-	-	-	-
Triple Flag Precious Metals	R																
Wheaton Precious Metals Corp.	WPM	649	766	648	755	440	392	401	342	-	-	-	-	-	-	-	-
Peer Average		**332**	**395**	**374**	**413**	**360**	**335**	**327**	**313**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Large Producers																	
Agnico-Eagle Mines Limited	AEM	1,737	2,086	3,176	3,517	775	770	786	770	1,051	1,059	1,071	1,001	1,225	1,215	1,208	1,118
B2Gold Corp.	BTG	1,041	1,047	1,019	1,024	422	528	670	711	788	888	1,045	1,069	878	941	1,098	1,171
Barrick Gold Corporation	GOLD	4,760	4,437	4,215	4,359	699	725	856	844	967	1,026	1,198	1,187	974	1,152	1,362	1,363
Endeavour Mining Corporation	EDV	908	1,536	1,388	1,370	643	618	686	714	873	885	929	984	988	966	1,084	1,092
Kinross Gold Corporation	KGC	1,706	1,447	2,037	2,295	723	828	893	856	987	1,138	1,204	1,110	1,260	1,458	1,247	1,275
Newcrest Mining Limited	NCM	2,171	2,093	1,956	2,216	613	583	624	611	862	912	1,065	1,011	1,044	1,278	1,595	1,432
Newmont Corporation	NEM	5,905	5,971	5,951	5,974	756	785	910	909	1,045	1,062	1,199	1,233	1,119	1,104	1,245	1,241
Peer Average		**2,604**	**2,660**	**2,820**	**2,965**	**698**	**721**	**820**	**811**	**975**	**1,018**	**1,138**	**1,122**	**1,075**	**1,154**	**1,280**	**1,257**
SMID Gold Producers																	
Alamos Gold Inc.	AGI	427	457	455	471	760	794	899	843	1,046	1,135	1,210	1,165				
Centerra Gold Inc.	CG	824	448	247	473	277	341	127	345	729	734	731	630	780	847	769	638
Dundee Precious Metals Inc.	DPM	298	310	265	281	426	435	574	514	654	657	829	717	749	811	983	1,006
Eldorado Gold Corporation	EGO	529	476	462	516	649	631	755	764	921	1,069	1,208	1,097	1,354	1,735	1,751	2,775
Equinox Gold Corp.	EQX	477	602	529	650	847	1,087	1,349	1,200	1,025	1,350	1,605	1,412	1,111	1,481	1,835	1,570
i-80 Gold Corp.	IAU	-	19	30	61	-	902	607	446	-	2,092	2,021	601	-	- 2,925	3,152	914
IAMGOLD Corporation	IAG	653	601	675	464	984	1,132	1,167	1,187	1,232	1,426	1,647	1,649	1,335	1,564	1,585	1,670
Karora Resources Inc.	KRR	-	113	140	183	-	1,296	992	1,095	-	1,737	1,377	1,430	-	-	2,484	1,525
Lundin Gold Inc.	LUG	215	429	399	404	667	665	689	494	804	839	779	564	1,140	1,203	1,188	1,037
New Gold Inc.	NGD	293	287	264	344	569	514	905	987	1,252	1,463	1,792	1,583	1,523	1,430	2,187	2,047
OceanaGold Corporation	OGC	302	363	466	524	866	740	909	804	1,278	1,247	1,412	1,341	1,747	1,675	1,580	1,530
Orla Mining Ltd.	OLA	-	2	106	105	-	4,986	517	505	-	7,965	733	767	-	55,875	1,350	1,314
SSR Mining Inc	SSRM	712	794	639	718	759	640	667	709	1,141	955	1,343	1,205	962	949	1,296	1,023
Torex Gold Resources Inc.	TXG	430	468	468	433	672	664	727	801	923	928	1,021	1,059	1,301	1,507	1,561	2,384
Victoria Gold Corp.	VGCX	117	164	148	198	786	737	966	1,016	1,153	1,193	1,536	1,308	1,293	1,513	1,905	1,597
Yamana Gold Inc.	AUY	780	885	884	921	701	689	744	737	1,080	1,030	1,108	1,062	1,005	1,045	1,196	1,079
Peer Average		**379**	**401**	**386**	**422**	**679**	**734**	**835**	**801**	**1,013**	**1,093**	**1,260**	**1,143**	**1,054**	**1,174**	**1,388**	**1,377**
Gold Developers																	
Artemis Gold	ARTG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ascot Resources	AOT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marathon Gold	MOZ	-	-	-	-	-	-	-	810	-	-	-	-	-	-	-	-
O3 Mining Inc.	OIII	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orezone Gold Corporation	ORE	-	-	36	147	-	-	487	497	-	-	483	512	-	-	4,311	757
Osisko Mining Inc.	OSK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Probe Metals	PRB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skeena Resources	SKE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Peer Average		-	-	5	18	-	-	61	163	-	-	60	64	-	-	539	95
Silver Stocks		**Silver Production (Moz)**				**By-Product Total Cash Costs (US$/oz Ag)**				**All-In-Sustaining-Costs (US$/oz Ag)**				**All-In-Costs (US$/oz Ag)**			
Endeavour Silver Corp.	EDR	3.5	4.9	5.4	5.0	7.3	9.3	11.2	11.7	17.6	20.3	21.2	21.9	-	-	-	-
Fortuna Silver Mines Inc.	FVI	7.1	7.5	6.8	6.8	1.8	- 0.6	2.2	3.0	13.5	15.2	15.6	13.2	26.9	25.3	37.3	38.3
Gatos Silver Inc.	GATO	2.9	7.6	9.5	7.3	6.0	5.9	3.7	4.9	17.2	16.1	12.7	12.3	-	-	-	-
Hecla Mining Company	HL	13.5	12.9	14.0	16.9	-	1.4	2.9	1.0	-	9.2	11.7	8.3	-	11.9	15.8	11.7
MAG Silver Corp.	MAG	-	-	4.6	8.7	-	-	4.6	3.4	-	-	9.2	10.5	-	-	9.2	10.5
Pan American Silver Corp.	PAAS	17.0	19.2	18.3	28.7	7.1	11.5	12.7	9.3	11.4	15.6	16.8	12.6	14.0	20.1	20.7	18.8
Peer Average		**7**	**9**	**10**	**12**	**4**	**6**	**7**	**6**	**9**	**14**	**15**	**12**	**10**	**14**	**15**	**15**

Source: Company reports, FactSet and CIBC World Markets Inc.

CIBC

Metals & Mining – CIBC Commodity Price Assumptions, November 13, 2022

CIBC Commodity Price Assumptions

November 13, 2022

Commodity		SPOT	Quarterly Forecast				Annual Forecast						
			Q1A/22	Q2A/22	Q3A/22	Q4E/22	2019A	2020A	2021A	2022E	2023E	2024E	2025E
Precious Metal Prices													
Gold	US$/oz	$1,774	$1,878	$1,870	$1,725	$1,825	$1,392	$1,770	$1,798	$1,825	$1,750	$1,650	$1,650
Silver	US$/oz	$21.80	$24.00	$22.66	$19.23	$26.00	$16.20	$20.51	$25.13	$22.97	$23.00	$20.00	$20.00
Platinum	US$/oz	$1,044	$1,029	$954	$878	$879	$865	$873	$1,025	$935	$1,013	$1,050	$1,050
Palladium	US$/oz	$2,047	$2,317	$2,075	$2,079	$2,072	$1,540	$2,179	$2,318	$2,136	$1,620	$1,500	$1,500
Rhodium	US$/oz	$25,861	$7,075	$7,075	$14,320	$14,320	$3,901	$9,479	$16,642	$10,698	$5,200	$4,000	$4,000
Base Metal Prices													
Aluminium	US$/lb	$1.09	$1.48	$1.31	$1.07	$1.42	$0.81	$0.77	$1.12	$1.32	$1.28	$1.24	$1.05
Copper	US$/lb	$3.94	$4.54	$4.33	$3.52	$4.00	$2.72	$2.80	$4.24	$4.10	$3.95	$3.75	$3.75
Lead	US$/lb	$0.98	$1.06	$1.00	$0.90	$1.14	$0.91	$0.83	$1.00	$1.02	$1.32	$1.00	$0.96
Nickel	US$/lb	$11.80	$12.91	$13.19	$10.01	$11.15	$6.30	$6.25	$8.37	$11.82	$9.90	$8.85	$8.74
Zinc	US$/lb	$1.36	$1.70	$1.78	$1.49	$1.90	$1.16	$1.03	$1.36	$1.72	$1.65	$1.25	$1.20
Molybdenum	US$/lb	$0.00	$14.40	$18.60	$18.00	$18.00	$10.60	$8.46	$15.62	$17.25	$15.75	$14.00	$12.00
Cobalt	US$/lb	$23.37	$33.79	$35.04	$23.63	$32.00	$15.10	$14.31	$22.03	$31.11	$30.00	$30.00	$29.00
Vanadium	US$/lb		$11.00	$10.50	$9.50	$9.50	$9.46	$6.13	$9.50	$10.13	$9.50	$8.00	$8.00
Bulk Commodities (term price)													
Metallurgical Coal	US$/t	$115.00	$484.88	$524.40	$250.00	$300.00	$184.95	$129.15	$224.79	$389.82	$250.00	$180.00	$180.00
PCI Coal	US$/t	$116.76	$390.76	$491.10	$245.00	$210.00	$130.98	$90.80	$160.13	$334.22	$175.00	$126.00	$126.00
Energy													
Crude Oil, WTI	US$/bbl	$88.86	$94.54	$108.38	$91.32	$85.00	$57.00	$39.43	$67.94	$94.81	$85.22	$70.00	$70.00
Currencies													
USD per Canadian		0.754	0.790	0.783	0.766	0.760	0.754	0.735	0.797	0.775	0.755	0.760	0.760
USD per Australian		0.670	0.725	0.714	0.683	0.670	0.695	0.671	0.750	0.698	0.695	0.710	0.710
USD per Euro		1.035	1.122	1.065	1.007	1.050	1.120	1.136	1.184	1.061	1.088	1.100	1.100
USD per Sterling		1.181	1.341	1.256	1.177	1.190	1.277	1.254	1.376	1.241	1.235	1.260	1.260
Brazilian Real per USD		5.325	5.225	4.923	5.247	5.700	3.938	5.293	5.390	5.259	5.591	5.300	5.300
Mexican Peso per USD		19.507	20.508	20.036	20.239	21.500	19.243	22.522	20.283	20.556	21.323	21.500	21.500
Russian Rouble per USD		60.550	88.904	67.377	60.205	60.205	64.680	70.700	73.708	67.442	90.000	80.000	75.000
South African Rand per USD		17.243	15.224	15.604	17.055	17.055	14.431	16.400	14.588	16.192	17.055	17.055	17.055

Source: Company reports, FactSet and CIBC World Markets Inc.

Metals & Mining – Royalty Companies & Gold Producers - Minor Changes – EPS & CFPS, November 13, 2022

Minor Changes - Earnings Per Share & Cash Flow Per Share

Reason: A=Adjusted Quarter Prices; I=Previous Intraday Comment Changes; S=Change to Underlying Stream/Royalty; O=Operational Fine-Tune of Mines/Projects; X=Other Changes

November 13, 2022

Company	Ticker	Analyst	Reporting Currency	Changes to 2022E EPS		Reason	Changes to 2023E EPS		Reason	Changes to 2022E CFPS		Reason	Changes to 2023E CFPS		Reason
				Previous	Revised		Previous	Revised		Previous	Revised		Previous	Revised	
Royalty Stocks															
Franco-Nevada Corporation	FNV	CC	US$		3.68			2.88			5.18			5.70	
Maverix Metals	MMX	MS	**R**												
Osisko Gold Royalties Ltd	OR	CC	C$		0.52			0.41			0.92			0.93	
Royal Gold, Inc.	RGLD	CC	US$		3.25			3.06			6.05			5.90	
Sandstorm Gold Ltd.	SSL	CC	US$		0.14			0.15			0.37			0.38	
Triple Flag Precious Metals	TFPM	CC	**R**												
Wheaton Precious Metals Corp.	WPM	CC	US$		1.20			1.39			1.71			2.03	
Peer Average															
Large Producers (2020 >1,000koz)															
Agnico-Eagle Mines Limited	AEM	AS	US$		2.44			1.74			5.31			5.11	
B2Gold Corp.	BTG	AS	US$		0.23			0.17			0.56			0.62	
Barrick Gold Corporation	GOLD	AS	US$		0.77			0.74			2.09			2.41	
Endeavour Mining Corporation	EDV	AS	US$		1.30			1.21			4.06			3.93	
Kinross Gold Corporation	KGC	AS	US$		0.26			0.20			0.87			1.04	
Newcrest Mining Limited	NCM	AS	US$		1.03			0.94			1.92			1.92	
Newmont Corporation	NEM	AS	US$		1.86			2.14			3.92			4.64	
Peer Average															
Alamos Gold Inc.															
Alamos Gold Inc.	AGI	CC	US$		0.30			0.37			0.95			0.93	
Centerra Gold Inc.	CG	AS	US$		-0.17			0.97			0.01			1.58	
Dundee Precious Metals Inc.	DPM	CC	US$		0.65			0.57			1.19			1.23	
Eldorado Gold Corporation	EGO	CC	US$		0.08			0.36			1.15			1.71	
Equinox Gold Corp.	EQX	AS	US$		-0.31			0.06			0.25			0.81	
i-80 Gold Corp.	IAU	BA	US$		-0.08			0.00			-0.18			-0.01	
IAMGOLD Corporation	IAG	AS	US$		-0.04			-0.06		0.83	0.84	**O**		0.38	
Karora Resources Inc.	KRR	AS	C$		0.22			0.23			0.63			1.30	
Lundin Gold Inc.	LUG	BA	US$		0.57			0.59			1.58			1.29	
New Gold Inc.	NGD	AS	US$		-0.06			-0.09			0.32			0.36	
OceanaGold Corporation	OGC	CC	US$		0.18			0.16			0.54			0.58	
Orla Mining Ltd.	OLA	BA	C$		0.20			0.21			0.28			0.27	
SSR Mining Inc	SSRM	CC	US$		0.87			0.97			1.61			2.08	
Torex Gold Resources Inc.	TXG	BA	US$		1.77			0.61			4.38			2.57	
Victoria Gold Corp.	VGCX	MS	C$		0.44			0.41			1.23			2.20	
Yamana Gold Inc.	AUY	AS	US$		0.29			0.25			0.72			0.79	
Peer Average															

Source: Company reports, FactSet and CIBC World Markets Inc.

Analyst: AS Anita Soni; BA Bryce Adams; CC Cosmos Chiu; MS Mohamed Sidibe

Metals & Mining – Developers, Silver Stocks, Base Metals & Diversified Miners - Minor Changes – EPS & CFPS, November 13, 2022

Minor Changes - Earnings Per Share & Cash Flow Per Share

Reason: A=Adjusted Quarter Prices; I=Previous Intraday Comment Changes; S=Change to Underlying Stream/Royalty; O=Operational Fine-Tune of Mines/Projects; X=Other Changes

November 13, 2022

Company	Ticker	Analyst	Reporting Currency	Changes to 2022E EPS Previous	Changes to 2022E EPS Revised	Reason	Changes to 2023E EPS Previous	Changes to 2023E EPS Revised	Reason	Changes to 2022E CFPS Previous	Changes to 2022E CFPS Revised	Reason	Changes to 2023E CFPS Previous	Changes to 2023E CFPS Revised	Reason
Gold Developers															
Artemis Gold	ARTG	AS	C$		-0.08			-0.07			-0.04			-0.04	
Ascot Resources	AOT	AS	C$		-0.02			-0.02			-0.01			-0.01	
Marathon Gold	MOZ	AS	C$		-0.02			-0.01			-0.02			-0.01	
O3 Mining Inc.	OIII	BA	C$		0.26			-0.11			-0.06			-0.04	
Orezone Gold Corporation	ORE	BA	C$		0.06			0.28			0.08			0.38	
Osisko Mining Inc.	OSK	BA	C$		-0.08			-0.04			-0.04			-0.04	
Probe Metals	PRB	MS	C$		-0.24			-0.12			-0.23			-0.10	
Skeena Resources	SKE	MS	C$		-1.22			-0.66			-1.27			-0.57	
Peer Average															
Silver Stocks															
Endeavour Silver Corp.	EDR	CC	US$		0.07			0.06			0.24			0.21	
Fortuna Silver Mines Inc.	FVI	CC	US$		0.17			0.34			0.75			0.79	
Gatos Silver Inc.	GATO	CC	US$		0.63			0.39			1.27			0.82	
Hecla Mining Company	HL	CC	US$		0.00			0.21			0.25			0.47	
MAG Silver Corp.	MAG	CC	US$		0.42			0.91			-0.13			-0.33	
Pan American Silver Corp.	PAAS	CC	US$		0.39			0.76			1.39			2.09	
Peer Average															
Base Metal															
Capstone Mining	CS	BA	US$		0.17			0.29			0.35			0.63	
Copper Mountain Mining	CMMC	BA	C$		-0.16			0.21			0.10			0.86	
Ero Copper	ERO	BA	US$		1.05		1.53	1.51	O		1.99			2.46	
First Quantum	FM	BA	US$		1.57			1.33			3.60			3.15	
HudBay	HBM	BA	US$		0.14			0.64			1.63			2.16	
Lundin Mining	LUN	BA	US$		0.54			0.85			1.23			1.44	
Sierra Metals	SMT	BA	**R**												
Diversified & Specialty Miners															
Teck Resources	TECK.B	BA	C$		9.34			7.14			15.34			11.04	
Cameco	CCO	BA	**R**												
Largo Inc.	LGO	BA	US$		0.26			0.17			0.82			0.94	

Source: Company reports, FactSet and CIBC World Markets Inc.

Analyst: AS Anita Soni; BA Bryce Adams; CC Cosmos Chiu; MS Mohamed Sidibe

CIBC Ratings and Price Targets

Ticker	Price	Price Target Prior	Price Target Current	Rating Prior	Rating Current

Source: Company reports and CIBC World Markets Inc.

Changes To CIBC Estimates

Ticker	Earnings Type	FYE	2021 Prior	2021 Current	2022 Prior	2022 Current	2023 Prior	2023 Current

Source: Company reports and CIBC World Markets Inc.

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Neutral	NT	Stock is expected to perform in line with similar stocks in the coverage universe during the next 12-18 months.
Underperformer	UN	Stock is expected to underperform similar stocks in the coverage universe during the next 12-18 months.
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