

## Mining Monthly: November Edition

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All figures in USD unless otherwise stated

### 1 Month Performance

Gold	+7.1%
Silver	+12.5%
Copper	+8.3%
Platinum	+11.4%

### YTD Performance

Gold	-3.4%
Silver	-4.5%
Copper	-14.9%
Platinum	+9.1%

### Equity Indices Performance (1 Month)

GDX	+16.9%
GDXJ	+17.6%
SIL	+14.4%
COPX	+21.6%

### Best Performers (1 Month)

I-80 Gold Corp.	IAUX	+55.0%
Prime Mining Corp.	PRYM	+53.4%
Capstone Copper Corp	CS	+46.5%
Hudbay Minerals Inc.	HBM	+44.5%
Eldorado Gold Corporation	ELD	+43.9%

### Worst Performers (1 Month)

Talon Metals Corp	TLO	-17.9%
Hycroft Mining Holding Corporation	HYMC	-16.0%
Belo Sun Mining Corp.	BSX	-15.7%
Ascot Resources Ltd.	AOT	-11.6%
Endeavour Silver Corp.	EXK	-6.2%

Please refer to the applicable disclosures on the back page  
Source: Atrium Research, CapitalIQ, FactSet, Company Documents

### What you need to know:

- Producers, developers, and explorers continue to trade at low multiples. These low multiples make for great buying opportunities; there are plenty of standout winners despite the weak performance
- We anticipate the number of bankruptcies to rise as companies struggle to raise funds and treasuries dwindle
- Precious metals and commodities shared a strong month, posting the highest monthly gain since 2020 – equities took part as well

### Sentiment Update

Gold just posted the largest monthly gain in more than two years with spot rising 7.1%, from \$1,651/oz to \$1,768/oz, the largest move since July 2020. Silver posted its best monthly gain since December 2020, rising 12.5% to \$22.3/oz. Copper had a strong month as well with the price per pound rising from \$3.49/lb to \$3.78/lb. The miners took part in the upside as well, with the GDX, SIL, and COPX gaining 17%, 14%, and 22%, respectively.

Overall, the scenario for gold equities improved significantly throughout November, with multiples bouncing off lows only seen when gold was between \$1,200-1,300/oz (Figure 4). That said, we continue to see opportunities throughout the mining sector with producers cash flowing considerably at ~\$1,800/oz gold, and developers and explorers being ripe for acquisitions. Development companies are also trading at near-decade lows on a P/NAV basis despite continuing to advance their projects. We believe investors will need to be patient and selective with development companies as they face a more challenging financing environment and ongoing cost inflation risk.

We are also seeing many opportunities in the junior explorer space, with most companies trading at ~\$30/oz, down ~60% from 2020 highs. These trough multiples not only make a great entry point for investors, but also might encourage more M&A from the heavily cash-flowing producers. However, opportunities often come with misfortune as capital to fund these exploration projects has never been more difficult to obtain and as a result, we anticipate bankruptcies to be on the rise from the lowest quality players in the group over the next several months.

As we approach the end of the year, we are pleased with the general sentiment of the mining space given its recent performance despite the recessionary fears across broader markets. We encourage investors to position themselves in the mining sector as many top-tier companies remain on sale but must proceed with caution as some lower-quality companies may not make it through 2023.

### Major News

#### Prospectus Exemption Amendment:

The Canadian Securities Administration (the CSA) amended the National Instrument 45-106 Prospectus Exemptions (NI 45-106) to introduce a new prospectus exemption available to companies listed on a Canadian stock exchange. The exemption will provide a more efficient method of raising capital for reporting issuers by introducing a short offering document. Additionally, the exemption will allow the issuer to distribute freely tradeable listed equities to the public. The exemption has specific eligibility requirements that limit this offering to companies of a certain size and financing need.

We view this as a positive for junior explorers as the exemption helps companies with limited access to capital get the funds required to advance their projects and ultimately contribute to supply chains.

#### **New Accredited Investor Exemption:**

The Ontario Securities Commission (OSC) expanded the Accredited Investor Exemption to include “Self-Certified Investors” with certain professional or academic qualifications. This means that investors who “possess the necessary business knowledge, through their education or experience, to make an informed investment decision” despite not meeting the financial criteria to qualify as an accredited investor, are now eligible to be exempt from the accredited investor criteria. Some examples of courses or certifications that would qualify an investor as Self-Certified are holders of an MBA degree in finance, CFA charterholders, CPAs, etc. We view this as a positive for the mining space as this exemption opens more capital that otherwise could not be deployed into the market and can contribute to bringing more attention to an asset class that is necessary for building our future.

#### **Canada Orders Chinese to Divest Stakes in Three Canadian Lithium Miners:**

Earlier this month the Canadian government ordered several Chinese companies to divest their stakes in three Canadian lithium miners as it looks to strengthen its hold on this country’s critical minerals projects amid rising demand for the underlying commodities. Industry Minister François-Philippe Champagne said that following a “multi-step national security review process” the government has asked Sinomine Rare Metals Resources Co., Chengze Lithium International Ltd., and Zangge Mining Investment Co. to divest from Canada’s Power Metals Corp., Lithium Chile Inc., and Ultra Lithium Inc., respectively. These steps were taken under the Investment Canada Act (ICA), which gives the government the power to require non-Canadians to divest control of a Canadian business if it believes the investment could be injurious to national security.

We understand that China dominates the global supply of many critical metals and there is some need to prevent supply chain vulnerabilities from affecting the industry in the West, however, this decision poses many risks and downsides to the Canadian critical metals mining industry. This increased risk for foreign investors will likely reduce foreign investment and slow down the development of these critical metals projects. The decision could also result in fewer foreign asset companies listing in Canada and the re-domiciliation of Canadian companies to other jurisdictions. Beyond lithium, the new guidelines extend to the other 31 minerals on the critical mineral list, including Cu, Ni, U, and Zn, and could affect foreign investment in companies mining these minerals as well.

#### **M&A and Major Financings**

**Yamana Gold Inc.** entered into an agreement to be acquired by Pan American Silver Corp. and Agnico Eagle Mines Ltd., breaking the Gold Fields Limited offer from May 31, 2022. According to the Gold Fields agreement, Yamana had to pay a US\$300M termination fee to Gold Fields. Pan American Silver will acquire all of the issued and outstanding shares of Yamana, while Agnico will acquire Yamana’s Canadian assets, including the Canadian Malartic mine.

**Triple Flag Precious Metals Corp.** and **Maverix Metals Inc.** announced that they have entered into a definitive agreement in which Triple Flag will acquire Maverix in an all-share transaction, in aims to build the next senior precious metals streaming and royalty company. At the time of the acquisition, the exchange ratio implies a premium of 22% based on the 10-day VWAP of Triple Flag and Maverix. The purchase price implies a total equity value for Maverix of \$606M. Upon completion of the transaction, existing Triple Flag and Maverix shareholders would own approximately 77% and 23% of the combined company, respectively.

**Equinox Gold Corp.** announced an at-the-market offering with BMO and National Bank for up to US\$100M. The proceeds from the offering will be used to continue expanding production from its current asset base through exploration and development, for prospective M&A, and general working capital purposes. The offering will be effective until December 2024 unless terminated before such date by Equinox.

### Performance by Commodity

Commodity	Unit	Price	1 Month	1 Year
Gold	(\$/oz)	1,771.4	+7%	-1%
Silver	(\$/oz)	22.2	+12%	-1%
Platinum	(\$/oz)	988.7	+11%	+4%
Copper	(\$/lb)	3.8	+8%	-12%
Steel	(\$/t)	3,698.0	+4%	-16%
Iron Ore	(\$/t)	109.5	+24%	+11%
Lead	(\$/t)	2,225.0	+9%	+1%
Manganese	(CNY/t)	31.3	0%	-9%
Palladium	(\$/oz)	1,848.0	-3%	-0%
Uranium	(\$/lb)	48.4	-3%	+5%
Lithium	(CNY/t)	577,500.0	-2%	+182%
Cobalt	(\$/t)	51,955.0	0%	-25%
Nickel	(\$/t)	28,556.0	+23%	+43%
Tin	(\$/t)	24,446.0	+29%	-37%
Zinc	(\$/t)	3,131.0	+8%	-3%
Molybdenum	(\$/kg)	46.5	+3%	+4%
Titanium	(\$/kg)	9.0	-18%	+27%

**Figure 1: Performance by Commodity (Source: Trading Economics)**

Three Graphs to Consider

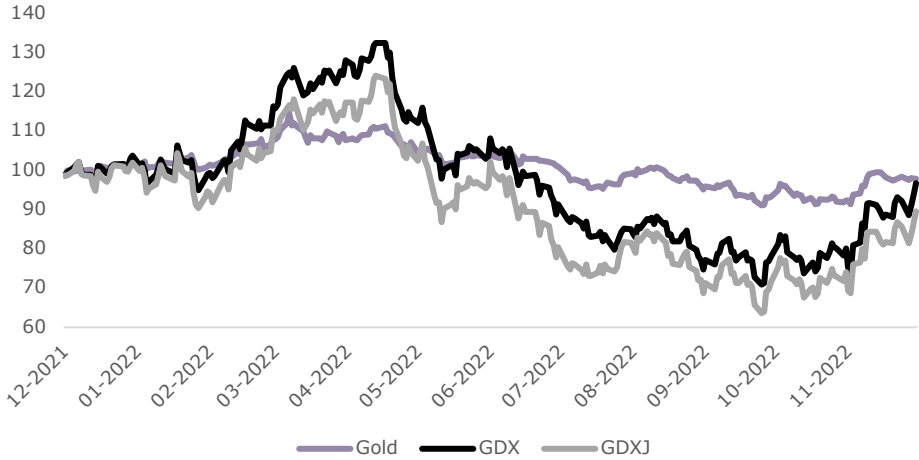


Figure 2: Gold Spot vs. Gold Equities Indices

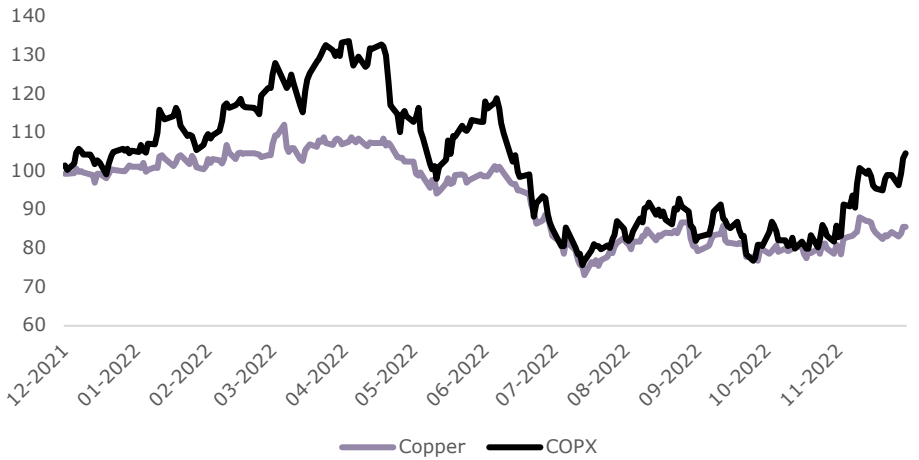


Figure 3: Copper Spot vs. Copper Equities Index

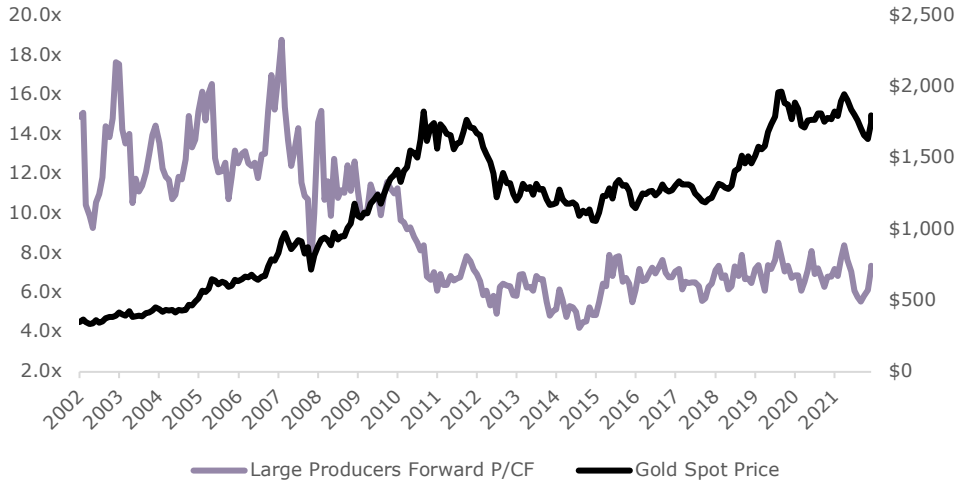


Figure 4: Multiple Compression

### Best Drill Intercepts

We highlight the best drill intercepts in the industry as we believe here lies some of the highest upside opportunities in the exploration market, evident by the strong outperformance compared to the broader market as they uncover potentially sizeable assets.

Company	Ticker	Grade (g/t)	Interval (m)	From (m)	Grade x Width	November Performance
HighGold Mining	HIGH	18.76	121	208	2270	+20.3%
New Found Gold	NFG	42.64	32	145	1364	+30.5%
Snowline Gold	SGD	1.89	410	5	775	+12.3%
Filo Mining	FIL	0.53	1356	44	719	+22.2%
New Pacific Metals	NUAG	1.03	592	176	610	-7.0%
Northern Star Resources	NST:ASX	33.85	18	184	609	+26.8%
i-80 Gold	IAU	60.20	10	199	602	+71.3%
De Grey Mining	DEG:ASX	261.00	2	36	522	+25.0%
Southern Cross Gold	SXG:ASX	1.60	306	319	490	+126.0%
Kenorland Minerals	KLD	16.61	29	71	482	+1.4%

**Figure 5: Best Gold Intercepts in November (Source: MinerDeck)**

Company	Ticker	Grade (g/t)	Interval (m)	From (m)	Grade x Width	November Performance
GoGold Resources	GGD	265	111	69	29,415	+31.1%
GR Silver Mining	GRSL	111	186	151	20,646	+12.0%
Filo Mining	FIL	14	1356	44	18,984	+22.2%
AbraSilver Resource	ABRA	754	25	140	18,850	-9.6%
Collective Mining	CNL	69	169	136	11,661	+6.5%
i-80 Gold	IAU	631	18	188	11,358	+71.3%
Hycroft Mining	HYMC	58	189	314	10,962	-4.5%
Dolly Varden Silver	DV	372	22	25	8,184	+24.6%
Fireweed Metals	FWZ	46	124	286	5,704	+47.5%
Goliath Resources	GOT	442	11	142	4,862	-23.0%

**Figure 6: Best Silver Intercepts in November (Source: MinerDeck)**

Company	Ticker	Grade (%)	Interval (m)	From (m)	Grade x Width	November Performance
Filo Mining	FIL	0.62	1356	44	841	+22.2%
Arizona Sonoran Copper	ASCU	1.22	340	211	415	+8.2%
Ivanhoe Electric	IE	1.06	314	602	333	+12.6%
Solaris Resources	SLS	0.31	910	124	282	+50.7%
Marimaca Copper	MARI	0.45	464	4	209	0.0%
Tudor Gold	TUD	0.34	593	794	202	-6.0%
Culpeo Minerals	CPO	1.08	169	239	183	0.0%
Peel Mining	PEX:ASX	2.07	82	425	170	+6.1%
Aeon Metals	AML:ASX	1.54	98	319	151	+15.4%
American Eagle Gold	AE	0.17	851	30	145	+500.0%

**Figure 7: Best Copper Intercepts in November (Source: MinerDeck)**

## Peer Group Analysis

### Large Producers

Company Name	Ticker	Price (Local)	FD ITM Shares	Mkt Cap	EV	P/NAV	P/CF		AISC		AuEq Production CAGR (2021-2024)	1 Month Change
							2022E	2023E	2022E	2023E		
Newmont Corporation	NEM	47.11	804.0	\$37,876	\$40,255	1.2x	7.8x	9.7x	\$1151	\$1024	4%	+11%
Sibanye Stillwater Limited	SBSW	10.83	2830.0	\$30,649	\$30,338	0.3x	4.3x	3.0x	\$2469	\$1346	-1%	+15%
Barrick Gold Corporation	GOLD	16.45	1771.0	\$29,133	\$29,075	0.9x	7.5x	6.9x	\$1203	\$1169	4%	+9%
Agnico Eagle Mines Limited	AEM	50.79	492.0	\$24,989	\$25,629	1.1x	9.9x	9.7x	\$1066	\$1053	22%	+16%
Newcrest Mining Limited	NCM	18.58	893.1	\$12,152	\$13,288	0.6x	6.7x	8.2x	\$999	\$1058	0%	+24%
Gold Fields Limited	GFI	11.08	891.2	\$9,875	\$10,726	0.9x	6.2x	6.0x	\$1216	\$1129	9%	+41%
Anglogold Ashanti Ltd	AU	18.55	418.4	\$7,761	\$8,714	1.0x	4.9x	5.7x	\$1442	\$1304	9%	+42%
Northern Star Resources Ltd	NST	10.70	1165.1	\$8,335	\$8,179	0.7x	7.2x	8.0x	\$1049	\$1043	9%	+22%
Kinross Gold Corporation	KGC	4.15	1265.3	\$5,251	\$7,449	0.8x	5.9x	5.8x	\$1371	\$1302	1%	+14%
Endeavour Mining Plc	EDV	28.26	248.8	\$5,149	\$5,197	0.8x	4.7x	5.5x	\$918	\$988	-4%	+17%
<b>Average</b>						<b>0.8x</b>	<b>6.5x</b>	<b>6.9x</b>	<b>\$1288</b>	<b>\$1142</b>	<b>5%</b>	<b>+21%</b>

### Intermediate Producers

Company Name	Ticker	Price (Local)	FD ITM Shares	Mkt Cap	EV	P/NAV	P/CF		AISC		AuEq Production CAGR (2021-2024)	1 Month Change
							2022E	2023E	2022E	2023E		
Alamos Gold Inc.	AGI	13.21	401.4	\$3,883	\$3,751	0.9x	13.2x	10.5x	\$1220	\$1140	3%	+23%
Hecla Mining Company	HL	5.33	606.3	\$3,231	\$3,604	1.3x	30.1x	22.8x	\$1498	\$1384	3%	+17%
B2Gold Corp.	BTO	4.51	1087.7	\$3,592	\$3,081	1.2x	5.8x	4.1x	\$1013	\$783	-1%	+8%
SSR Mining	SSRM	15.16	207.5	\$3,145	\$2,762	0.9x	23.5x	7.8x	\$1187	\$1236	-4%	+10%
Lundin Gold Inc.	LUG	13.52	239.9	\$2,375	\$2,662	1.0x	6.4x	8.7x	\$832	\$914	1%	+37%
Equinox Gold Corp.	EQX	4.79	403.9	\$1,417	\$1,987	0.4x	18.2x	3.9x	\$1768	\$1431	12%	+7%
Eldorado Gold Corporation	ELD	10.95	184.7	\$1,481	\$1,672	0.3x	8.7x	3.8x	\$1209	\$942	12%	+44%
IAMGOLD Corporation	IAG	2.07	480.0	\$994	\$1,510	0.9x	3.0x	3.7x	\$1604	\$1179	9%	+42%
Oceanagold Corporation	OGC	2.47	704.9	\$1,275	\$1,449	0.4x	3.9x	3.1x	\$1632	\$1206	29%	+25%
Centamin Plc	CEE	1.74	1156.5	\$1,474	\$1,347	0.7x	4.8x	4.3x	\$1351	\$1165	7%	+24%
New Gold Inc.	NGD	1.45	682.3	\$724	\$839	0.4x	4.1x	2.1x	\$1950	\$974	11%	+18%
Victoria Gold Corp.	VGCX	7.55	66.4	\$367	\$519	0.4x	6.4x	3.2x	\$1568	\$979	14%	+10%
Dundee Precious Metals Inc.	DPM	6.13	193.1	\$867	\$444	0.4x	3.9x	3.9x	\$853	\$914	-10%	-1%
Torex Gold Resources Inc.	TXG	13.10	86.5	\$829	\$491	0.5x	2.3x	3.1x	\$1012	\$1068	-8%	+41%
Argonaut Gold Inc.	AR	0.41	911.5	\$274	\$369	0.2x	N/A	1.1x	\$1608	\$1040	26%	+2%
<b>Average</b>						<b>0.7x</b>	<b>9.6x</b>	<b>5.8x</b>	<b>\$1354</b>	<b>\$1090</b>	<b>7%</b>	<b>+20%</b>

### Small Producers

Company Name	Ticker	Price (Local)	FD ITM Shares	Mkt Cap	EV	P/NAV	P/CF		AISC		AuEq Production CAGR (2021-2024)	1 Month Change
							2022E	2023E	2022E	2023E		
Orla Mining Ltd.	OLA	4.91	342.7	\$1,232	\$1,308	0.7x	12.2x	14.6x	\$558	\$451	622%	+14%
K92 Mining Inc.	KNT	7.95	237.9	\$1,385	\$1,305	0.7x	16.0x	8.7x	\$1070	\$900	32%	+28%
Wesdome Gold Mines Ltd.	WDO	8.13	144.5	\$860	\$862	0.7x	14.3x	6.0x	\$1537	\$840	26%	-0%
Calibre Mining Corp.	CXB	0.85	474.5	\$295	\$248	0.3x	3.1x	2.0x	\$1218	\$1032	26%	+23%
Mandalay Resources Corporation	MND	2.14	93.7	\$147	\$138	0.4x	1.8x	1.4x	\$1072	\$1026	4%	+25%
Hycroft Mining Holding Corporation	HYMC	0.58	199.8	\$116	\$107	0.5x	N/A	N/A	\$1557	N/A	-100%	-16%
Galiano Gold Inc.	GAU	0.77	228.2	\$129	\$74	0.4x	5.0x	4.4x	\$1456	\$1724	-5%	+15%
<b>Average</b>						<b>0.5x</b>	<b>8.7x</b>	<b>6.2x</b>	<b>\$1210</b>	<b>\$996</b>	<b>87%</b>	<b>+13%</b>

### Developers & Major Explorers

Company Name	Ticker	Price (Local)	FD ITM Shares	Mkt Cap	EV	P/NAV	P/CF		AISC		AuEq Production CAGR (2021-2024)	1 Month Change
							2022E	2023E	2022E	2023E		
Osisko Mining Inc.	OSK	3.54	408.5	\$1,059	\$1,036	0.6x	N/A	N/A	N/A	N/A	N/A	+25%
Rupert Resources Ltd.	RUP	4.69	266.3	\$915	\$887	0.4x	N/A	N/A	N/A	N/A	N/A	+23%
Artemis Gold Inc.	ARTG	4.22	272.9	\$843	\$793	0.3x	N/A	N/A	N/A	N/A	N/A	+13%
New Found Gold Corp.	NFG	6.23	177.3	\$809	\$762	0.7x	N/A	N/A	N/A	N/A	N/A	+27%
Reunion Gold Corporation	RGD	0.42	1854.9	\$570	\$551	0.5x	N/A	N/A	N/A	N/A	N/A	+4%
I-80 Gold Corp.	IAUX	2.62	240.4	\$461	\$478	0.4x	N/A	N/A	N/A	N/A	N/A	+55%
Sabina Gold & Silver Corp.	SBB	1.27	553.9	\$515	\$464	0.3x	N/A	N/A	N/A	N/A	N/A	+14%
Orezone Gold Corporation	ORE	1.20	332.6	\$292	\$437	0.5x	N/A	1.9x	N/A	N/A	N/A	+3%
Skeena Resources Limited	SKE	7.42	78.8	\$428	\$407	0.4x	N/A	N/A	N/A	N/A	N/A	+21%
Belo Sun Mining Corp.	BSSX	0.22	1452.4	\$229	\$214	0.1x	N/A	N/A	N/A	N/A	N/A	-16%
G Mining Ventures Corp.	GMIN	0.68	447.5	\$223	\$173	0.3x	N/A	N/A	N/A	N/A	N/A	+5%
Ascot Resources Ltd.	AOT	0.38	435.6	\$121	\$136	0.2x	N/A	N/A	N/A	N/A	N/A	-12%
Marathon Gold Corporation	MOZ	0.92	395.8	\$267	\$105	0.3x	N/A	N/A	N/A	N/A	N/A	+10%
Prime Mining Corp.	PRYM	1.81	112.8	\$150	\$140	0.2x	N/A	N/A	N/A	N/A	N/A	+53%
Wallbridge Mining Company Limited	WM	0.22	885.3	\$143	\$114	0.2x	N/A	N/A	N/A	N/A	N/A	+29%
Probe Metals Inc.	PRB	1.28	157.9	\$148	\$115	0.2x	N/A	N/A	N/A	N/A	N/A	+11%
Moneta Gold Inc.	ME	1.58	102.7	\$119	\$104	0.2x	N/A	N/A	N/A	N/A	N/A	+11%
Osino Resources Corp.	OSI	0.82	127.5	\$77	\$73	0.2x	N/A	N/A	N/A	N/A	N/A	+41%
<b>Average</b>						<b>0.3x</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>+18%</b>

Figure 8: Peer Group Analysis

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**NOT RATED:** Atrium does not provide research coverage on the respective company

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