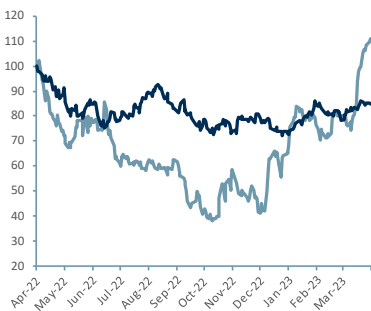


POST RESULTS FYE22A

VALUE RANGE

USD 6.68 – 7.03



PPTA (lighter line) Nasdaq market vs price relative

Tuesday, 11 April 2023

Intrinsic Price (USD)	6.86
Value Range Low (USD)	6.68
Value Range High (USD)	7.03
Implied MCAP (m)	452.26
Implied EV (m)	416.29
XNAS	PPTA
TSX	PPTA
Financial YE	31-Dec
Currency	USD

Business Activity

Mining E&P

Key Metrics

Close Price (USD)	4.90
MCAP (m)	308.76
Net Debt (Cash) (m)	-36.21
EV (m)	272.55
52 Wk Hi	5.02
52 Wk Lo	1.69

Key Ratios

(Net Cash) / Shareholder Equity %	-11.73%
FX Rate USD/USD	1.00

Mining Sector Research

Nasdaq Market Index

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Perpetua Resources Corp

US Strategic Asset (Sb) – Beats our expectations

Perpetua Resources Corp. (Nasdaq: PPTA; TSX: PPTA) is an Idaho based (Stibnite jurisdiction), gold-antimony-silver (Au-Sb-Ag) junior explorer/producer. PPTA YE22A results beat (come in under) ACF's OPEX cost estimates by 2.43%. The Environmental Liabilities Expense rose by \$4.6m due to inflation pressures and was the only individual opex line to miss PPTA's budget forecasts. ACF's **valuation increase** for PPTA released on Mar 7, 2023 is based on milestones achieved since our initiation note. ACF identifies PPTA as a best-in-class gold asset. PPTA is an ESG leader amongst junior miners (long run lower WACC), has a unique antimony (Sb) reserve in the US and is positioned to be the only domestically mined source of Sb (supplying ~35% of domestic demand).

- Final EIS and draft RoD expected YE23E;
- Inflation drove up Environmental Liabilities Expense by \$4.6m
- EBIT beat - loss came in lower by 2.43%, Δ \$(0.73)m vs. ACF est.;
- EBITDA beat - loss came in lower by 2.43%, vs. ACF est.;
- EPS beat (+ fully diluted) loss 4.22% lower vs. ACF est.

ACF est. \$ (m)	Revenue	EBITDA	EPS (diluted)	CPS	CPS (diluted)
2027E	628.0	435.4	4.79	6.91	6.60
2031E	1,123.6	876.6	7.43	13.91	13.29

Multiples	EV/ Revenue	EV/ EBITDA	P/ EPS (diluted)	P/ CPS	P/ CPS (diluted)
2027E	0.4x	0.63x	1.02x	0.71x	0.74x
2031E	0.2x	0.3x	0.7x	0.4x	0.4x

Investment Case

Share Price History	No. of Shares in issue	Fully diluted
NoSh (m)	63.01	65.97
Implied Intrinsic Price	7.18	6.86
Value Range Low	6.82	6.68
Value Range High	7.54	7.03
XNAS	PPTA	
Financial YE	31-Dec	
Reporting Currency	USD	
NoSh (m)		63.01
NoSh (m) expected dilution (Exp D)		63.01
NoSh (m) full dilution (FD)		65.97
Key Metrics	\$	adj.
MCAP (m)	308.8	308.8
Net Debt (Cash) (m)	(36.2)	(36.2)
EV (m)	272.5	272.5
52 Wk Hi	5.02	5.02
52 Wk Lo	1.69	1.69
Free Float	26%	26%
*Key Metrics FCF adj.	2027E	2031E
CPS (USD)	6.91	13.9
CPS (Exp D) (USD)	6.91	13.9
CPS (FD) (USD)	6.60	13.3
P/CPS	0.71x	0.35x
P/CPS (Exp D)	0.71x	0.35x
P/CPS (FD)	0.74x	0.37x

Perpetua Resources Corp, an ESG/sustainability focused junior miner is redeveloping the Stibnite Gold Project (SGP), Idaho, previously abandoned after 100+ years of mining activity. PPTA's SGP boasts high grade gold @ 2.2 g/t (est. years 1-4 with M + I resource of 6 Moz Au @ 1.42 g/t). The 2020 feasibility study (FS) suggests superior economics with a post-tax NPV of \$1.86bn (assumptions: 5% discount rate, gold \$1,850/oz) and will be the only domestic mined source of the critical mineral Sb (M+I 206Mlbs @0.07%).

Top tier gold mine – PPTA completed a feasibility study (FS) on the Stibnite Gold Project in Dec 2020. The FS recorded Proven & Probable Reserves at 4.8 Moz gold (Au) @ 1.43 g/t, Measure and Indicated (M + I) at 6.0 Moz @ 1.42 g/t. **In contrast, we conservatively model Proven & Probable at Au 4.25 Moz by reducing grade assumptions by 5% as a margin of error vs. the FS.**

The FS provides evidence that Stibnite is one of the largest independent gold projects in the US. Stibnite **could become the second largest gold producing mine in the US** with an average annual production of 463 Koz years 1-4. **We conservatively model average annual production of 457 Koz years 1-4.** The project's exceptional grade and low strip ratio place it in the lowest quartile of the mining cost curve (AISC cost at \$438/oz in years 1-4).

The FS suggests robust project economics of 22% IRR at \$1,600/oz gold and ~28% IRR at \$1,850/oz gold. We assume an aggressive >11.6% WACC and a **\$1,613 t/oz gold price**, which is at the mid-point between the long run (17 years) median gold price and the **current spot price of ~\$2,024.50 t/oz.**

Our value range is \$6.68 to \$7.03 p/s suggesting 37-44% upside. The stock is up ~145% since our [initiation note of Sep 28, 2022](#).

Gold – PPTA's superior project economics: The SGP, is located along the eastern edge of the Idaho Batholith, within the Central Idaho Mineral Belt. There are 3 primary deposits mined as 3 separate open pits and an additional 3m MT of historical tailings at >1.0 gpt.

Antimony (Sb) - PPTA could reduce US critical minerals supply chain risk: PPTA plans to supply ~35% of US Sb demand. *Antimony is a critical mineral used in renewables, LDES, defense (ammunition et al), and fire-retardant materials.* Currently, China and Russia dominate global antimony supply, controlling more than 75% of production. PPTA has national strategic value in its ability to become the sole US antimony domestic source of mined production.

Defense – On Dec 19, 2022 Perpetua received an award of up to \$28.4m under the Defense Production Act (DPA) for critical minerals, i.e. **Antimony trisulfide**. On Sept 12, 2022, Perpetua announced a \$200k grant by the US Department of Defense (DoD) (through Defense Logistics Agency (DLA)) for two study programs - each to be completed over 12 months – to evaluate PPTA’s military-grade antimony trisulfide resources to see if they meet military specifications (Mil-Spec).

Renewables - Antimony’s unique properties make the semi metallic element a key resource in renewable energy (solar panels and wind turbines).

Long Duration Energy Storage (LDES) - PPTA’s partner Ambri Inc. is rapidly commercializing an Sb-based liquid battery suitable for long-term energy storage. **Ambri’s** use of antimony delivers a low-cost technology and a system that avoids degradation by fully consuming the negative electrode.

Healthcare - Although antimony (Sb) is currently used sparingly in medicine, it has beneficial effects and we expect healthcare AI iterative learning techniques to reveal more uses. Today Sb compounds (meglumine antimonate and sodium stibogluconate) are the principal medications for treating leishmaniasis (kala-azar), caused by a protozoan parasite.

ESG and Sustainability impact on valuation - PPTA is a leading exemplar within the junior mining space for ESG/Sustainability. The emphasis on ESG will lower its cost of capital through reduced risk and greater competition from investors. An ESG culture will improve operational margins through better monitored process and mindset. As we approach production this long-term investment will come into play, enhancing our valuation range.

Since our [initiation note](#) PPTA also completed its water quality improvements at Stibnite improving Hennessy Creek diversion channel to prevent leakage, removing legacy waste from Defense Mineral Exploration Administration (DMEA) waste rock dump from along the East Fork of the South Fork of the Salmon River (EFSFSR), and creating a lined diversion for surface water around Smelter Flats.

Catalysts

Final EIS + draft RoD YE2023; Final permitting decision beginning 24E; Rising gold price; Rising antimony demand / supply tightening (ammunition usage and innovation (EVs / clean energy)); Successful Mil-Spec results from DoD project.

FYE22A Results - Beats expectations

Advance its Stibnite project to commercial production in 2027E.

Significant milestone - United States Forest Service (USFS) released PPTA's Supplemental Draft Environmental Impact Statement (SDEIS) and has identified the Stibnite Gold Project's "Modified Mine Plan" as the Preferred Alternative.

Significant milestone - United States Forest Service (USFS) updates National Environmental Policy Act (NEPA) permitting schedule -> FEIS and draft ROD exp. YE23 and final ROD exp. beg. 24E.

Perpetua Resources: strategy is to advance its Stibnite project to commercial production in 2027E. On 28 Oct 2022, the United States Forest Service (USFS) released PPTA's Supplemental Draft Environmental Impact Statement (SDEIS) and has identified the Stibnite Gold Project's "Modified Mine Plan" as the Preferred Alternative.

PPTA FYE22A highlights:

- Critical minerals \$24.8m award (Technology Investment Agreement under Title III of Defense Production Act) from the DoD in Dec 2022A will support plans to achieve final RoD by beginning. 2024E;
- DoD \$200k grant awarded in Sep 2022A;
- Clean Water Act Permit received to Construct from the Idaho Department of Environmental Quality (DEQ);
- Ongoing discussions with Nez Perce Tribe;
- No reportable environmental spills and zero lost time incidents;
- Completion of summer 2022 water quality improvement program: stream diversion and removal of Defense Minerals Exploration Administration legacy waste rock dump from East Fork of the South Fork of the Salmon River;
- Department of Defense antimony Mil-Spec study program ongoing.

Perpetua Resources' YE22A OPEX came in 2.43% lower than our estimates. This positive OPEX performance dropped through to EBITDA, EBIT and NI. All costs booked to PPTA's YE22A results, besides those related to the ASAO work, were below budget.

The rate of expenditure for the ASAO (Administrative Settlement Agreement and Order on Consent) increased PPTA's Environmental Liability Expense by \$4.6m in 2022A as a result of higher fuel costs and inflationary pressures.

US gasoline and diesel prices increased by ~50% and ~60%, respectively, between Oct 2021 to Jun 2022, driving up the company's fuel costs over the 2022 summer period creating the increase in the P1 estimated cleanup costs (i.e. ASAO).

The cost increase was also driven by an increase in the hourly rates of permitting contractors and a tightening in the US labor market (during the summer of 2022, US employment rate averaged 59.9% versus 60.4% today) – both factors created increased competition for contractors' services.

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