



GOLD SECTOR

DEVELOPERS / ADVANCED EXPLORERS

Developers / Advanced Explorers

Stock	Code	YTD %Change	3Yr %Change	Market Cap (A\$M)
Alto Metals	AME	-31%	-56%	33
Antipa Minerals	AZY	-33%	-69%	37
Astral Resources	AAR	10%	-48%	45
Ausgold	AUC	-28%	-33%	73
Carnavale Resources	CAV	0%	-50%	19
De Grey Mining	DEG	4%	20%	1627
Gateway Mining	GML	-60%	-31%	8
Great Boulder	GBR	-25%	43%	36
Horizon Gold	HRN	-7%	-31%	13
Kairos Minerals	KAI	-28%	-57%	39
Kin Mining	KIN	-6%	-63%	14
Matsa Resources	MAT	-30%	-78%	12
Magnetic Resources	MAU	23%	-10%	37
Meeka Metals	MEK	-37%	115%	34
Nexus Minerals	NXM	-75%	-63%	20
Odyssey Gold	ODY	-34%	-17%	21
Ora Gold	OAU	24%	-51%	34
Predictive Discovery	PDI	31%	320%	265
Rox Resources	RXL	6%	-77%	57
Spartan Resources	SPR	184%	26%	89
Saturn Metals	STN	-11%	-76%	23
Strickland Metals	STK	275%	197%	33
Tanami Gold	TAM	-3%	-51%	39
WIA Gold	WIA	-22%	-27%	30

Company	ASX Code	Argonaut Valuation (\$/sh)
Carnavale Resources	CAV	No Covered / No Rating
Ora Gold	OAU	No Covered / No Rating
Spartan Resources	SPR	No Covered / No Rating
Magnetic Resources	MAU	\$1.8 (SPEC BUY)
De Grey Mining	DEG	\$1.69 (BUY)
WIA Gold	WIA	\$0.13 (SPEC BUY)

Please refer to important disclosures at the end of the report (from page 11)

Friday, 8 December 2023

Gold Sector – 2023 Recap

2023 Performers

Analyst | Patrick Streater

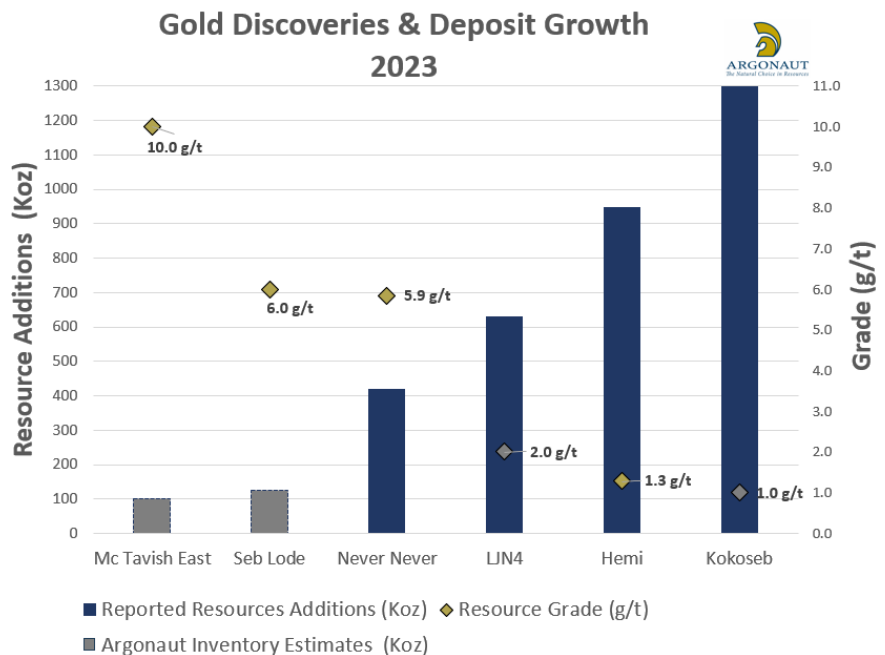
Quick Read

With 2023 coming to an end Argonaut packages together a selection of pre-production gold plays that made material progress in growing their deposits during the year. We discuss some well-known stories (Hemi and Never Never) and introduce some new discoveries worth considering: Kokoseb (WIA), LJN4 (MAU), SEB Lode (OAU) and McTavish East (CAV).

Key 2023 Gold Sector Themes

Adding value via the drill bit: New discoveries and resource growth is the most effective way to add value to a gold project. In Figure 1 below, we highlight the 2023 performers that drilled on during the year and made meaningful progress with their projects.

Figure 1 – 2023 gold developer and explorer progress.



Source: Argonaut Research, Company Reports

Good Projects Power On Regardless: A lack of funding availability during the year saw most developers and explorers cutting back on exploration spend and slow down their development activities. Despite this, ample funding was still available for companies with quality projects who were able to maintain progress.

Implications

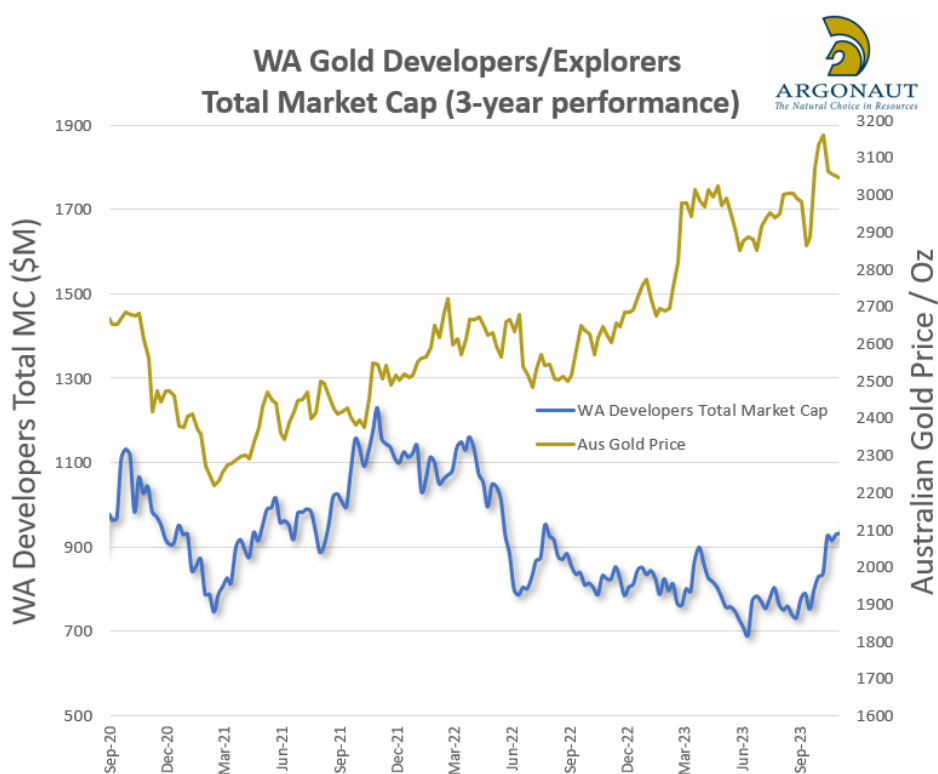
Heading into next year our pick of which deposits that will have the largest MRE increases in 2024 are Kokoseb (WIA Gold), LJN4 (Magnetic Resources) and Hemi (De Grey). All three are Buy Recommendations by Argonaut.

2024 Gold Portfolio – Revert back to old names or start fresh?

Leading into 2024 we put together a selection of pre-production gold plays which have spent 2023 adding value to their projects via the drill bit. For some of these names this value has been recognised in the share price, for others we are yet to see this value materialise.

The inclusion into this note considers not just resources added, but resource additions from projects where we have a high conviction of the project progressing to production. We consider geology, mineability, metallurgy and infrastructure hurdles in this assessment. At the larger end of the market cap range, well-known stories such as Hemi (De Grey) and Never Never (Spartan Resources) continued to grow during the year. New discoveries we cover in this note include LJN4 (Magnetic Resources), Kokoseb (WIA Gold), McTavish East (Carnavale Resources) and SEB Lode (Ora Gold).

Figure 2 - WA gold developer/explorers versus \$A gold price performance.



Source: Argonaut Research, Company Reports

Figure 3 – Discussed Projects in this note with current valuations, Argonaut ratings and likely development scenario.

Company	ASX Code	Key Project	Stage	Market Cap (\$m)	Price (\$/sh)	Argonaut Valuation (\$/sh)	YTD Performance %	Development Scenario
Carnavale Resources	CAV	McTavish East	Exploration	19	0.005	No Rating	+10%	Bolt-on acquisition
Ora Gold	OAU	Seb Lode	Resource	34	0.007	No Rating	+7%	Bolt-on acquisition
Spartan Resources	SPR	Never Never	Resource	467	0.48	No Rating	+193%	Mill Restart
Magnetic Resources	MAU	LJN4	Resource	259	1.06	\$1.8 (SPEC BUY)	+23%	Bolt-on acquisition
De Grey	DEG	Hemi	DFS	2,564	1.34	\$1.69 (BUY)	+8%	Stand-alone
WIA Gold	WIA	Kokoseb	Resource	30	0.033	\$0.13 (SPEC BUY)	-22%	Stand-alone

Source: Argonaut Research, FactSet

2023 Value Adders

WIA Gold (WIA), Market Cap \$30m: In May this year WIA Gold released a Maiden MRE of 1.3Moz at 1.0g/t for its Kokoseb discovery located in Namibia. Kokoseb is a text book discovery story with a resource that’s growing much faster than what the market has priced in.

With an extensive amount of drilling yet to be reported and further drilling planned into next year we anticipate WIA will eventually report a +2Moz resource for Kokoseb in its

next MRE update which is flagged for mid-CY24. Using all currently reported drilling by WIA, Argonaut models a current inventory for Kokoseb of 1.7-1.9Moz. Lode geometries at Kokoseb are favourable to large scale open mining with wide zones of mineralisation starting at surface dipping on average 50-60 degrees. These attributes should deliver a high resource to reserve conversion whilst maintaining sensible strip ratios.

Post-MRE, the drill out at Kokoseb continues with four rigs onsite to drill out the extents of Kokoseb and test further exploration targets at the southern end of Kokoseb. Argonaut holds a [Speculative Buy recommendation](#) for WIA with price target of \$0.13/sh (\$0.03/sh current). Current cash position of \$10.1m (at 30th Sep-23).

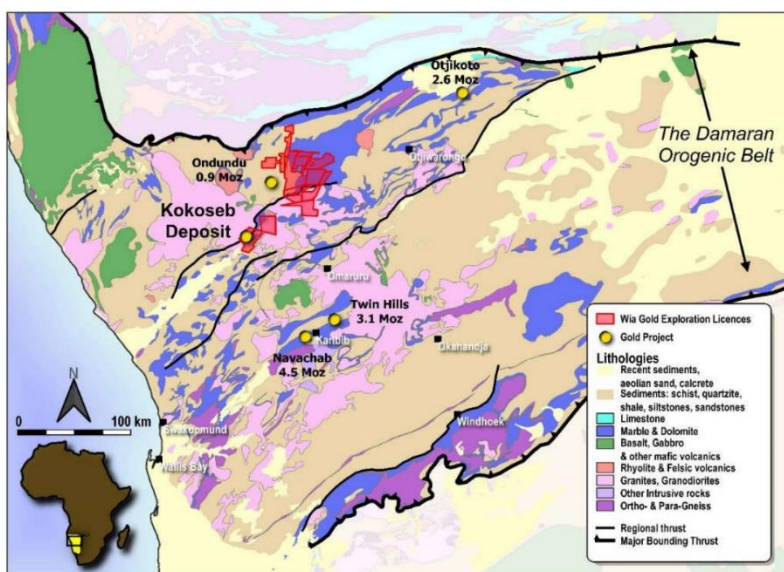
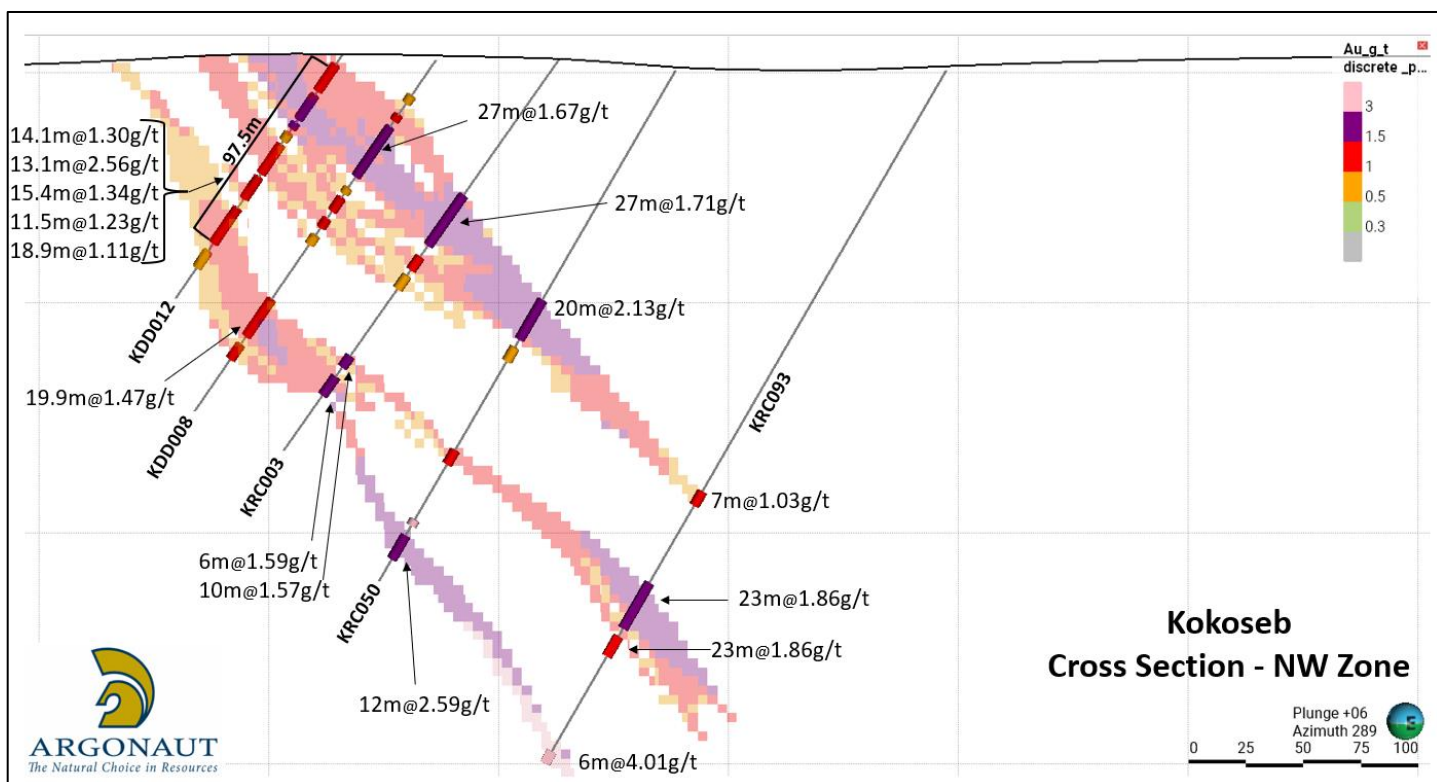


Figure 4 – (Above) Regional location map of Kokoseb. (Below) – Cross section of previously reported intercepts from Kokoseb.



Source: Argonaut Research (Figure 4), WIA (Figure 4-above)

Magnetic Resources (MAU), Market Cap \$261m: Magnetic Resources finished the year with an impressive MRE upgrade to its LJN4 deposit, located in the Laverton region of WA.

Top 5 intercepts reported at LJN4:

- 126m at 2.82 g/t Au
- 37m at 6.5 g/t Au
- 61m at 3.56 g/t Au
- 112m at 1.75 g/t Au
- 34m at 5.05 g/t Au

During the last six months MAU has released over a dozen +50gm intercepts from extensional drilling at depth to the LJN4 deposit. This drilling resulted in a +107% increase to the LJN4 MRE which now totals 852Koz at 2.02g/t Au (0.5g/t Au cut-off grade). Lode geometries at LJN4 are ideal for open-pit mining, with average true widths of 10-15m and a high-grade core over 150m a strike length with true widths ranging from 50-60m. In Argonaut’s recent MAU research note - ‘[Lady Julie – Sleeping Giant?](#)’, we model an open pit scenario that captures the current MRE within a large 1000m x 600m optimised pit shell (A\$2500/Oz). The LJN4 deposit is located only 15km from two existing mills - Mt Morgans (3Mtpa) and Granny Smith (3.5Mtpa). Our most likely development scenario for LJN4 is treating ore through one of these mills under a toll treating or a project acquisition transaction.

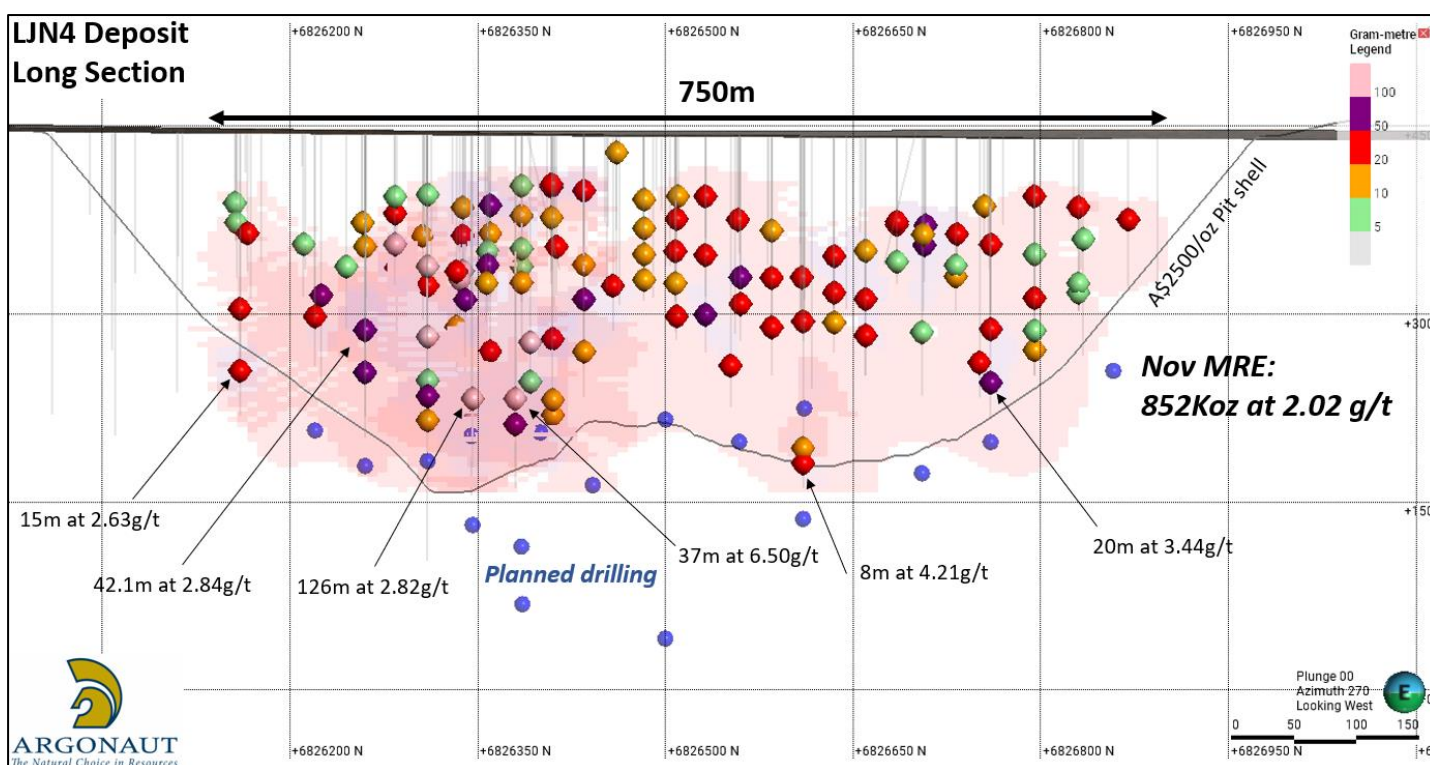
Laverton Project Total Resources (Nov-23):

Deposit	Tonnes (Mt)	Au g/t	Ounces (Koz)
LJN4	13.1	2.02	823
LJC	1.3	1.68	72
HN9	3.1	1.28	130
Other	5.0	1.12	180
Total	22.7	1.69	1,235

Source: MAU

MAU currently has three drill rigs onsite completing a 5,215m program targeting down dip extensions to LJN4. We anticipate further material increases to the MRE from the aggressive 80-150m spaced drill step-outs combined with the excellent continuity of mineralisation. From the high-tenor intercepts already reported at LJN4 over a 750m strike length, we expect that through further drilling LJN4 may be a sizeable underground resource in addition to a large open pit. Argonaut holds a Speculative Buy recommendation for MAU with price target of \$1.80/sh (\$1.07/sh current). Current cash position of \$5.3m (at 20th Nov-23).

Figure 5 – Long section of the LJN4 deposit with +5gram metre intercepts plotted (true widths).

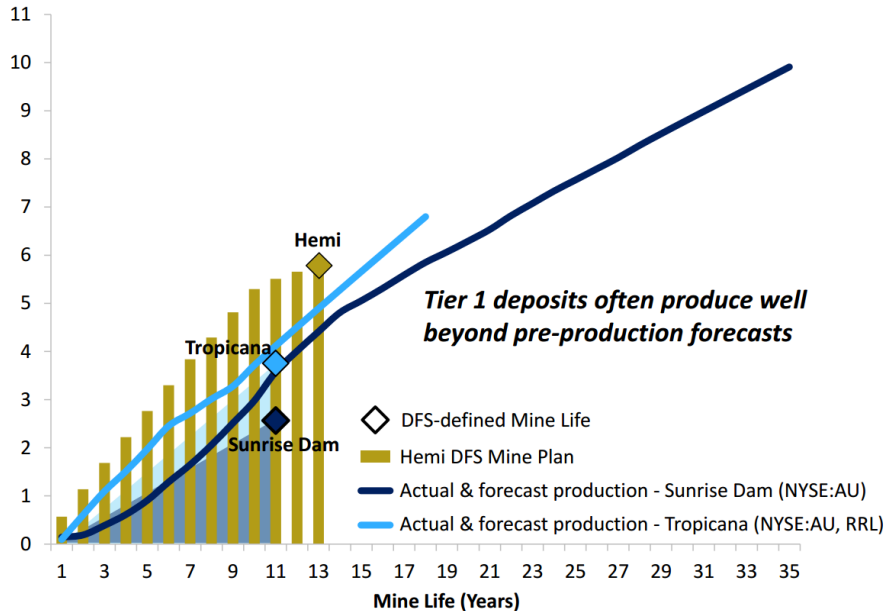


Source: Argonaut Research

Hemi featured as the only gold project in 'Argonaut's Best Undeveloped Projects - 2023'.

De Grey (DEG), Market Cap \$2.5B: Further drilling at Hemi added 1Moz during an 8-month period since March. The total resource at Hemi now totals 10.5Moz at 1.3g/t Au with 65% of the total ounces classified in the Measured and Indicated category. More importantly, drilling success at Eagle identified a higher-grade component developing at Hemi which opens the door for future underground development at Hemi. Argonaut's project valuation driver in the short term (3-6months) is the drilling progress at Eagle translating into underground reserve that increases the current 530Kozpa production profile. Argonauts holds a Buy recommendation with price target \$1.69/sh (\$2.18 spot price valuation at A\$3,044). For further details refer to Argonaut's recent research '[DFS Review](#)'.

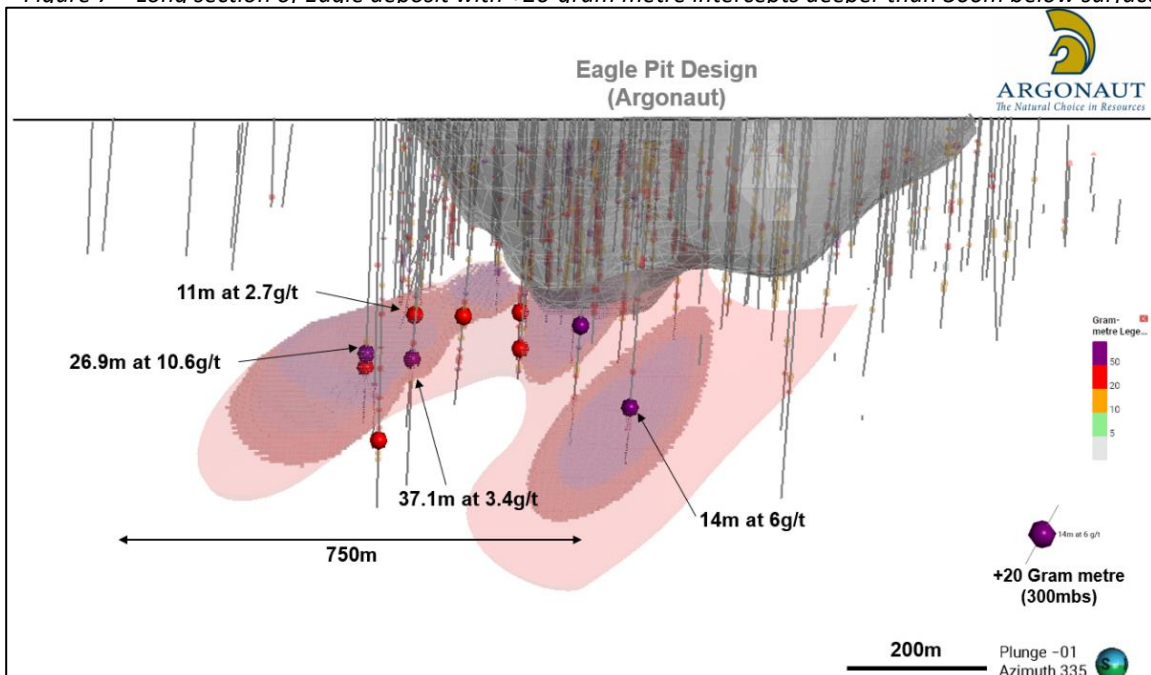
Figure 6 – Mine life forecasts of large-scale quality deposits – forecast vs actual Cumulative Production (Moz)



High-grade system developing at Eagle paving the for underground development

Source: Argonaut Research, S&P Global

Figure 7 – Lona section of Eagle deposit with +20-gram metre intercepts deeper than 300m below surface plotted.



Source: Argonaut Research



Spartan Resources (SPR), Market Cap \$463m: Spartan Resources' progress during the year delivered an additional 420Koz of resources at Never Never which now totals 721Koz at 5.9g/t Au. There is no question as to the quality of the Never Never discovery which has the grade, widths, and continuity to make it a high-margin underground operation once it goes into production. Even in a subdued sector for the gold developers the market recognised the material value of Never Never with a +190% YTD share price performance. SPR is flagging another MRE update for Never Never this month which that will incorporate additional drilling completed since the last MRE update in July.

Never Never featured as a Special Mention in 'Argonaut's Best Undeveloped Projects - 2023'.

In addition to the attractive mining physicals, a Never Never operation doesn't require a new mill build as the 2.5Mtpa Dalgaranga Mill has been kept in an active state of readiness since open pit mining ceased at Gibleys. SPR is targeting a Maiden Ore Reserve for Never Never early next year followed by mid-2024 restart decision.

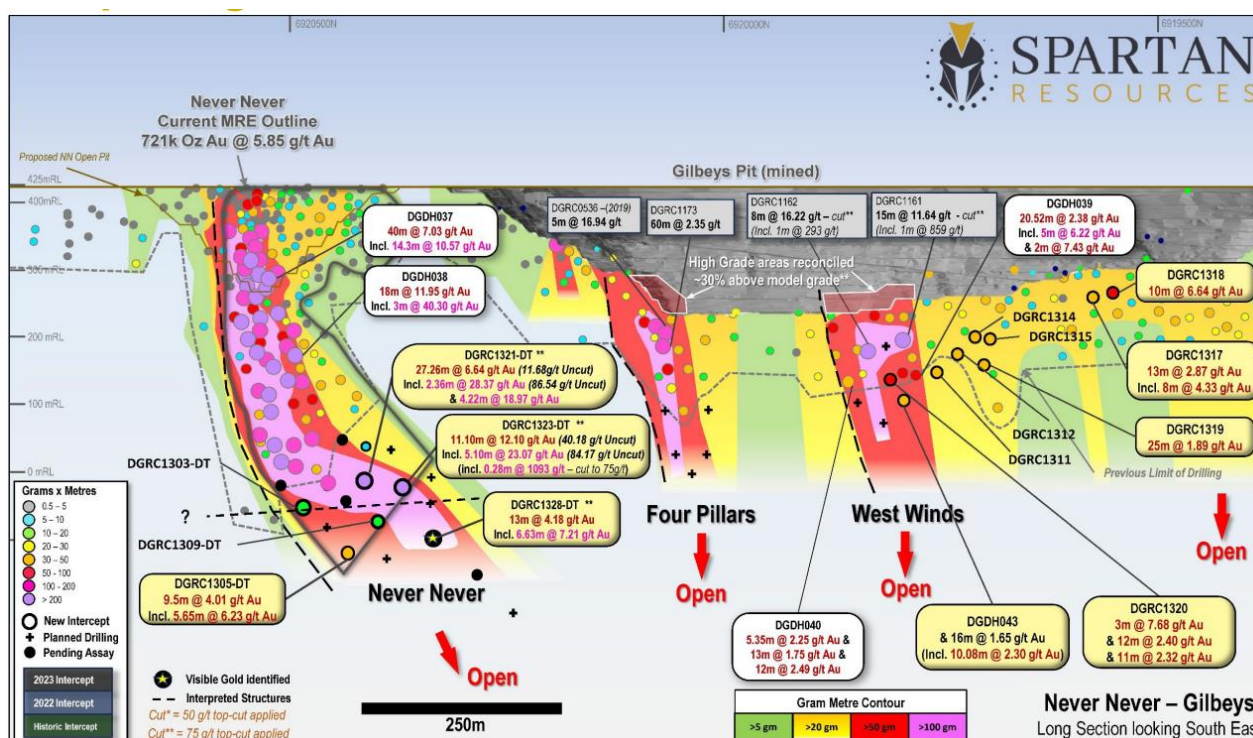
Figure 4 – Dalgaranga and Never Never Mineral Resources (as at 30 June 2023)

DALGARANGA MINERAL RESOURCES			
Category	Tonnes (Mt)	Grade (g/t)	Ounces (koz Au)
Measured	0.50	1.0	15.2
Indicated	12.36	2.2	892.5
Inferred	3.85	2.2	275.6
GRAND TOTAL	16.70	2.2	1,183.3

NEVER NEVER MINERAL RESOURCES			
Category	Tonnes (Mt)	Grade (g/t)	Ounces (koz Au)
Indicated	2.95	5.78	548.4
Inferred	0.88	6.10	172.9
GRAND TOTAL	3.83	5.85	721.2

Source: SPR

Figure 5 – Long Section of Never Never and 'look-a-like' targets along strike below the Gibleys Pit.



Source: SPR

The SEB Lode Discovery is our pick for the highest margin discovery this year

- 40m at 17g/t Au from 30m
- 16m at 35g/t Au from 28m
- 17m at 24g/t Au from 67m
- 13m at 22g/t Au from 32m
- 17m at 15g/t Au from 30m

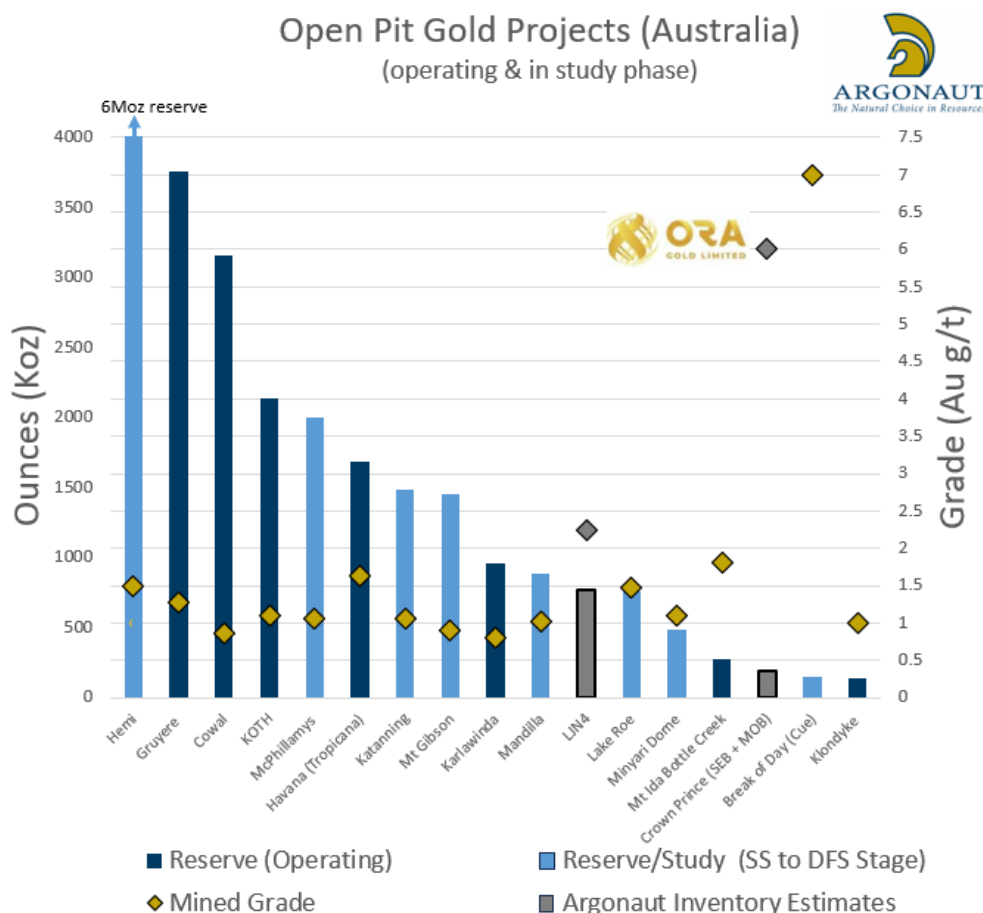
Initial Leach Well tests indicate excellent cyanide recovery +97%.

Ora Gold (OAU), Market Cap \$31m: Ora Gold’s Crown Prince Project is located 15km northwest of Meekatharra. Recent exploration success over the last six months identified a new discovery named the ‘SEB Lode’ which has been the focus of an extensive discovery drill out since April. A Select highlight of RC and diamond results from SEB drilling include:

Mineralisation has been defined over a 230m strike length and to a depth extent of ~210m below surface. Gold mineralisation sits within steeply dipping quartz veins hosted within folded dolerite unit. Infrastructure in the area is excellent, with a travel distance of 21km to the Meekatharra township and its sealed air strip. Open pit mining at Crown Prince will require minimal capex spend with ore processing through one of five existing mills in the area. Haulage distance to the Bluebird Mill (WGX), currently running below capacity, is 37km. OAU has flagged a maiden MRE for the SEB Lode in the current quarter which Argonaut estimates will be in the range of 125-145Koz for the SEB Lode grading around 6-7g/t Au. Importantly, the resource will be a shallow high-grade open pit development which are exceedingly rare in WA.

Figure 6 – Select open pit operations in production and study phase.

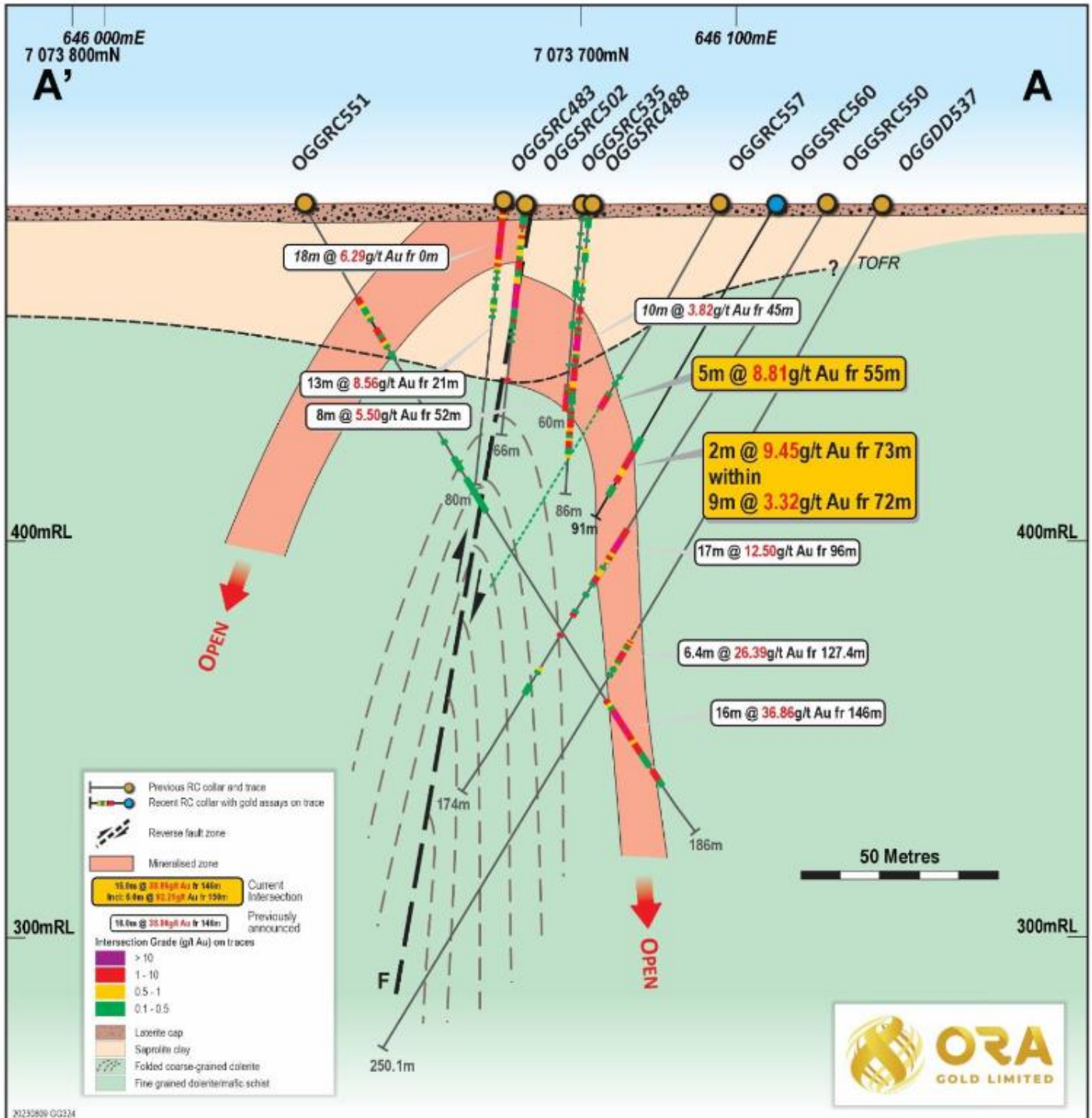
The SEB Lode will be a rare combination of shallow, high-grade open pit feed – potential M&A target in next the 12-months



Source: Argonaut Research, Company Reports, S&P Global



Figure 7 – Cross section of reported drill results from SEB.



Source: OAU

Carnavale Resources (CAV), Market Cap \$17m: Carnavale Resources is a high-grade gold exploration play outside of Kookynie, WA. Drilling throughout the year has focused on RC drill testing an anomalous trend of air core results over a 700m strike position at the McTavish East Prospect. Results of two RC drill programs reported in July and October have demonstrated potential for a high-grade resource (+10g/t) with best results of:

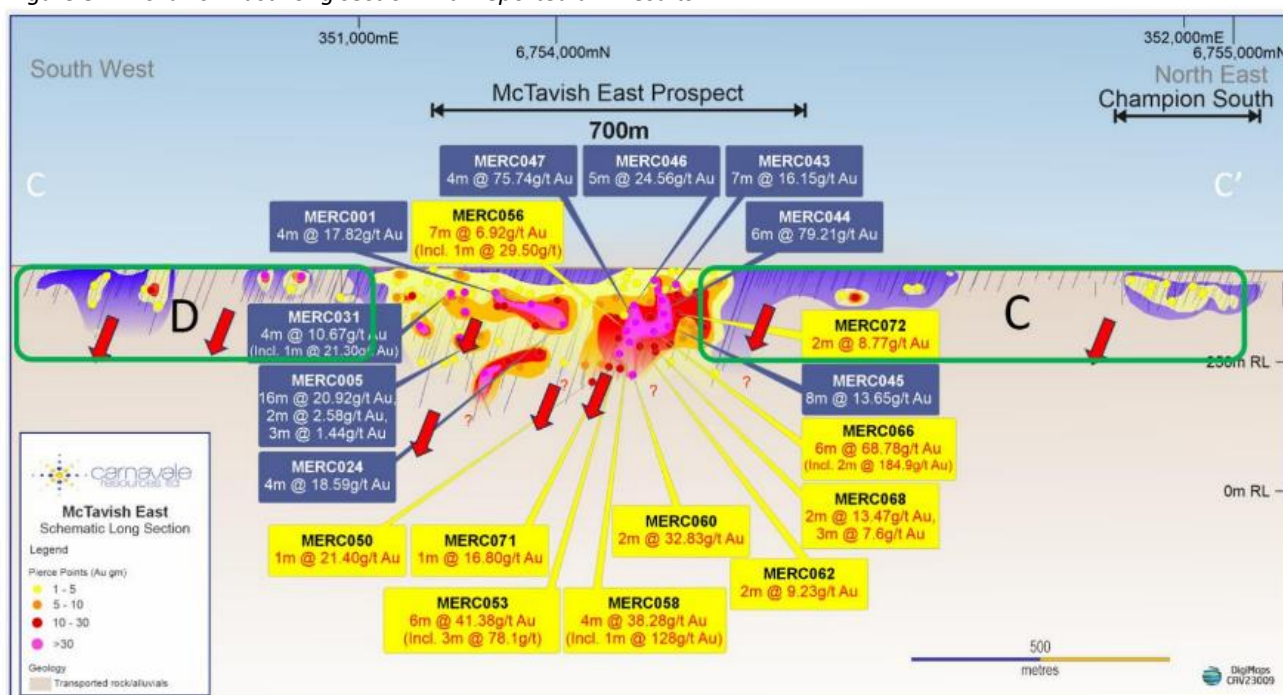
- 6m at 79g/t Au (MERC044)
- 4m at 75g/t Au (MERC047)
- 8m at 13g/t Au (MERC045)
- 5m at 24g/t Au (MERC046)
- 7m at 16g/t Au (MERC043)
- 6m at 68g/t Au (MERC066)

Mc Tavish East could be a +10g/t resource with simple met and truck able to at least 15 operating mills

Using currently reported drill data, Argonaut estimates a potential McTavish East inventory of 70-100koz grading 10-15g/t Au. There is plenty of scope to expand mineralisation at depth and target additional shoots along strike. The McTavish East Lode is a steeply dipping high grade (+10g/t) shoot with average true widths of 2-3m. Given the lode geometries we expect the majority of the McTavish East will be reported as an underground resource with a small open pit component. Initial metallurgical testing reported in September indicates excellent recoveries - ranging from 97%-99% in oxide and fresh rock respectively.

CAV is nearing the completion of a ~4,500m RC and diamond program at McTavish east targeting infill and extensions to the main lode. Drill results are anticipated in January. Further drilling in February is planned to drill test anomalous air core intercepts over a 1.5km strike extent of the McTavish East trend. Development of McTavish East won't require a new mill as, the deposit is truck able to numerous operating mills within the region. In time, we view the eventual developer of McTavish East as an existing small to mid-tier miner but for now CAV's focus is on value adding via the drill bit.

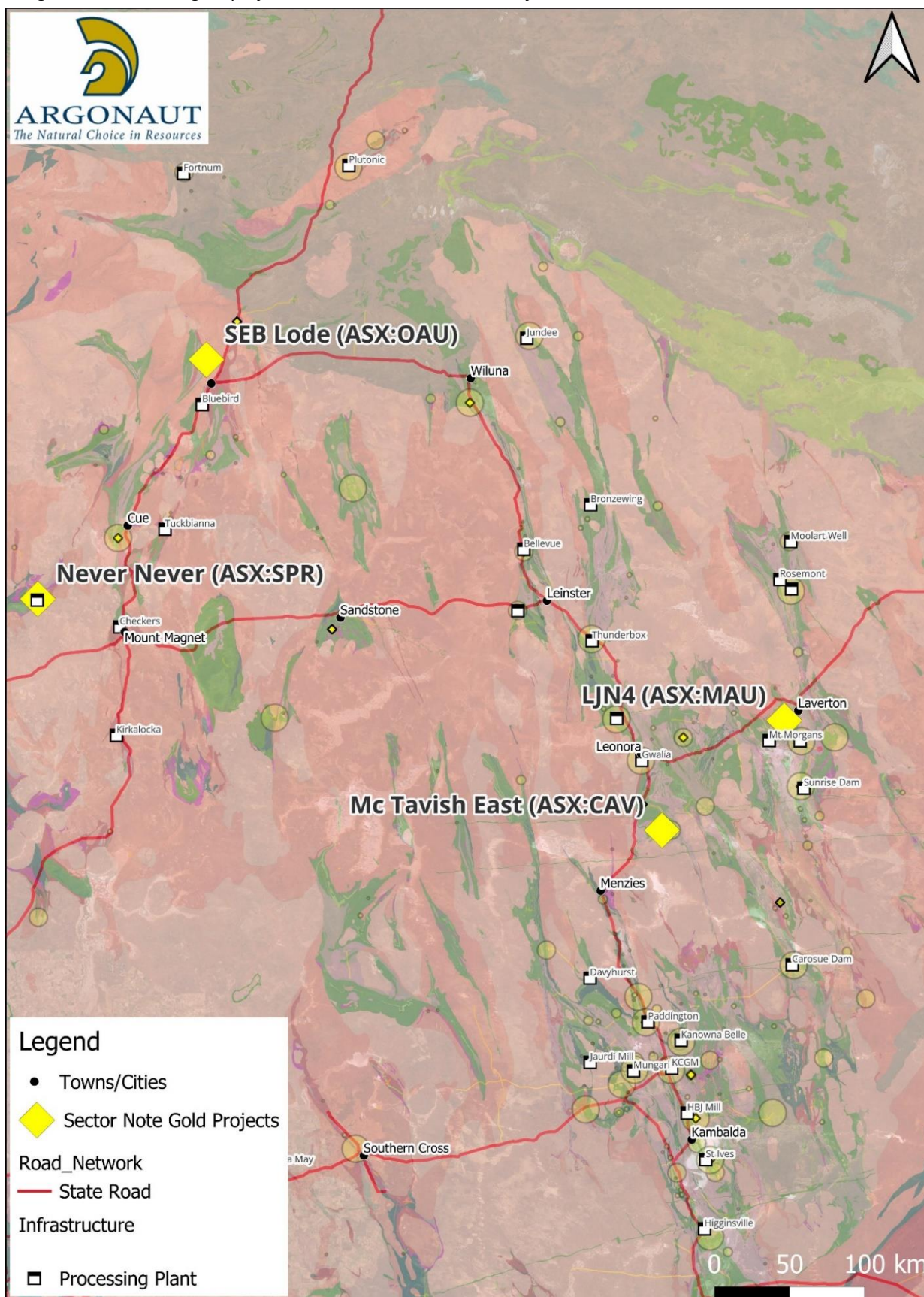
Figure 8 – McTavish East Long section with reported drill results.



Source: CAV



Figure 9 – Discussed gold project locations in WA Eastern Goldfields.



Source: Argonaut Research

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The publishing analyst owns shares in DEG, CAV, OAU, MAU and WIA

Carnavale Resources (CAV): Argonaut Securities Pty Ltd acted as Lead Manager to the Placement to raise up to \$2.2M in July 2023 and received fees commensurate with these services.

De Grey Mining Ltd (DEG): Argonaut Securities Pty Limited acted as Joint Lead Manager and Joint Bookrunner, and Argonaut PCF Limited acted as Joint Underwriter to the \$300M Placement announced on 28 September 2023 and received fees commensurate with these services.

Ora Gold Ltd (OAU): Argonaut Securities Pty Ltd acted as Joint Lead Manager to the Placement to raise up to \$4M in November 2023 and received fees commensurate with these services. Argonaut Securities Pty Ltd acted as Lead Manager to the Placement to raise up to \$2M in July 2023 received fees commensurate with these services. Argonaut holds 15M OAU shares.

Wia Gold Ltd (WIA): Argonaut Securities Pty Ltd acted as Lead Manager & Sales Agent to the pro-rata non-renounceable entitlement offer to raise up to approximately \$11M announced in July 2023 and received fees commensurate with this service. Argonaut owns or controls 5,333,332 WIA shares and 1.5M WIA01 Options exercisable at \$0.05 and 1.5M WIA02 exercisable at \$0.10 on or before 30 September 2024.

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