

EXPLORATION INFORMATION NUMBER THREE – DECEMBER 2022

An end-of-year update on the work carried out by Wedderburn Goldfields Ltd (WGL) via its wholly owned subsidiary PSD Minerals Pty Ltd (PSD) on its 100% owned Exploration Licence 6302, (EL) situated in the geological area of Central Victoria known as the Bendigo Zone, which has historically produced about 2% of the world's gold (over 63 million ounces).

EXPLORATION TARGETS

The world-class large and very high-grade gold deposits in Central Victoria all occur in distinct structural settings known as dilation zones, of which there are various forms. WGL is basing its search for gold on three main types of dilation zones, which have proven to be prolific gold producers in the Bendigo Zone. These three forms of dilation zones are:

1. Hinge zones in anticlines – probably the greatest amount of gold came from these structures;
2. Spur zones (a mesh-like arrangement of quartz-filled tension veins that were often very significant bodies of gold mineralisation) situated between anticlines and synclines; and
3. Hinge zones of synclines, which were neglected but are a significant feature of the very high-grade Swan Zone at Fosterville.

PGN Geoscience (PGN) notes: *“Where the magnetic response decreases along strike (N-S) we interpret this indicate plunging hinge zones or transition into synclinal hinges.”*

EXPLORATION LICENCE 6302

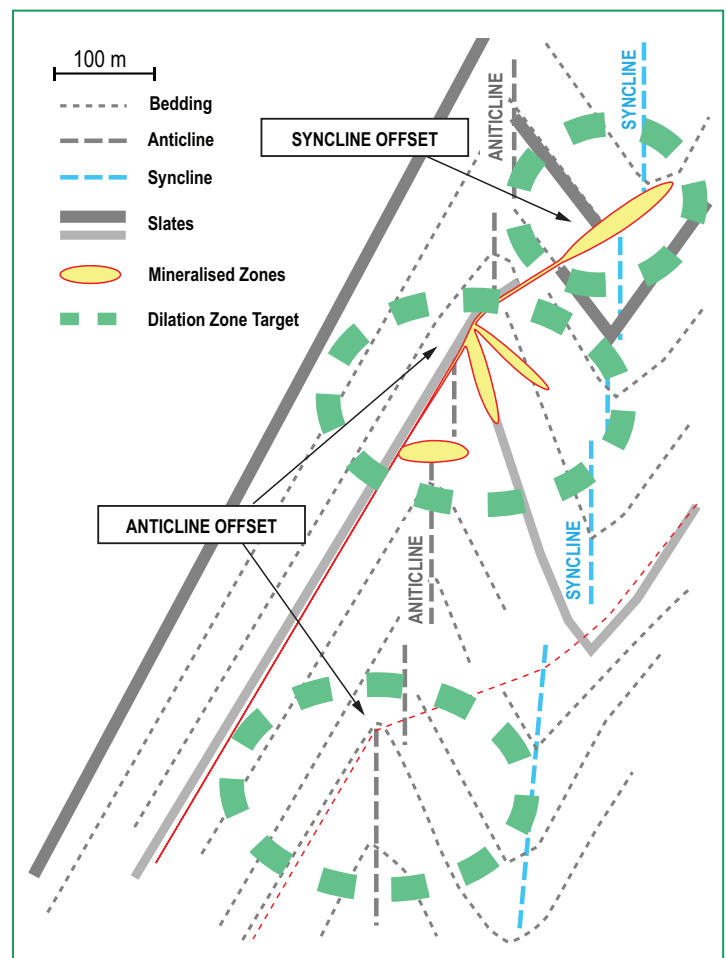
Historical research by Clive Willman & Associates (Willman) has classified the auriferous reefs of Wedderburn into three distinct groups: the Western, Central and Eastern Zones.

The Central Zone has the most greatest geological information. This has driven the current exploration carried out by WGL, which has focussed on Lane's Corridor in the southern portion of the Central Zone.

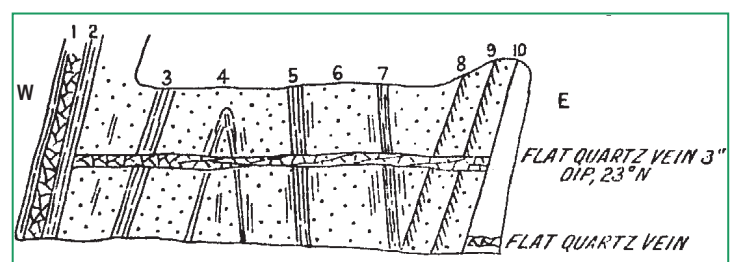
HISTORICAL RESEARCH

Memoire 10-1911 (Whitelaw) gives a credible geological description of the gold deposits of Wedderburn and their geological structures.

Whitelaw's cross-section of Baker's reef in Baker's shaft depicts the structural geological complexity of Lane's Corridor, noting the presence of a north-dipping cross reef extending from a laminated quartz reef in the west to a series of faults on the east.



Schematic cross-section showing how Bendigo zone gold-quartz veins usually occupy **dilation zones** associated with faults and fold axes.



Whitelaw (1911) - Cross-section of Lane's Reef in Baker's Shaft

CURRENT EXPLORATION

WGL has successfully completed a circa 3,400 metre diamond drilling campaign centred on Lane's Corridor.

Twelve holes, LDH 001 to 011, were drilled at flat angles circa azimuth 30° with downhole lengths of 120-150 metres, and DH 001 to 004 were drilled at azimuth angles of 51° with downhole extents of about 400 metres.

For all 16 diamond drill holes, the drill core has been:

- logged (preliminary interpretation continuing),
- subjected to magnetic susceptibility measurements (which also indicates conductivity was completed in late November – final interpretation imminent).

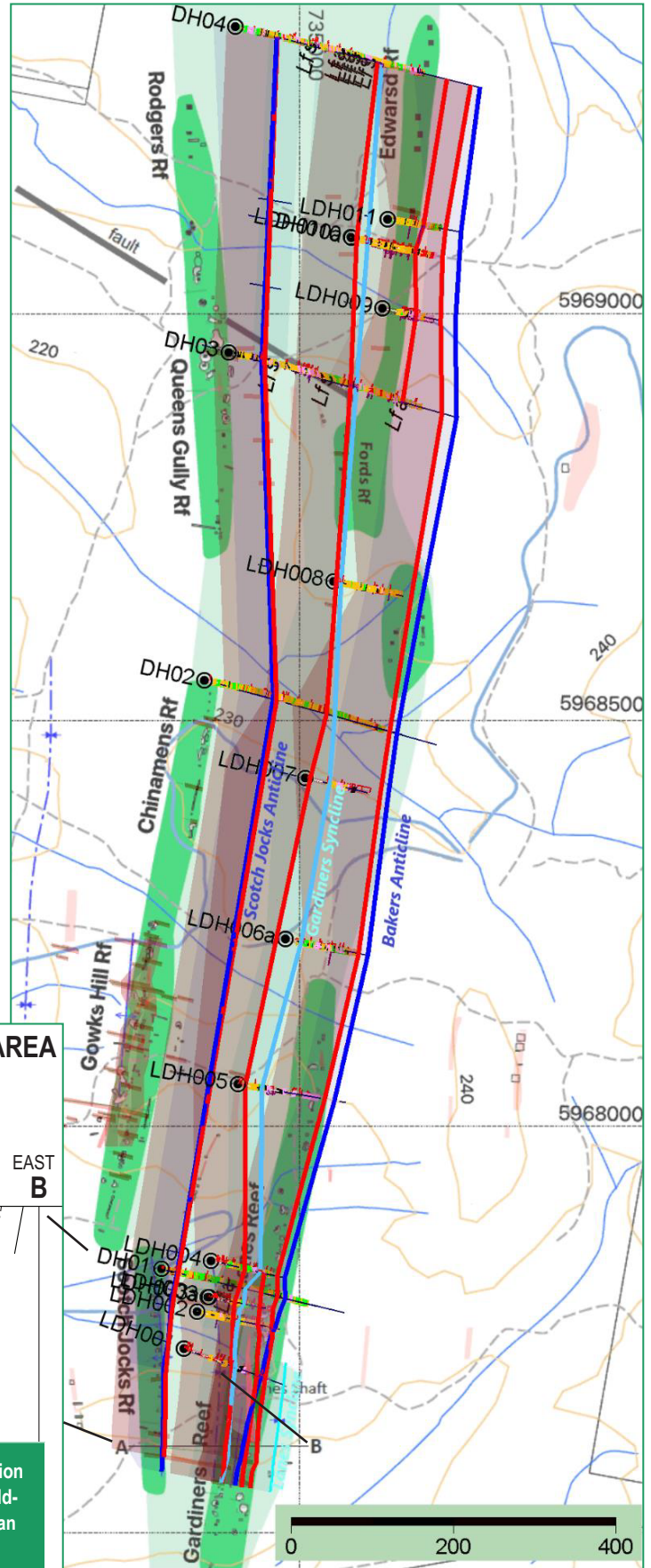
It is anticipated the drill core will be subjected to further testing and review comprising:

- a follow-up review of geological structural features as detailed interpretations of all results are completed and incorporated into a new 3-D model (January 2023),
- handheld X-ray fluorescence (XRF) measurements to test for any anomalous geochemical features in the core (to be done when contractors are available),
- geological structural logging (when contractors are available early in 2023).

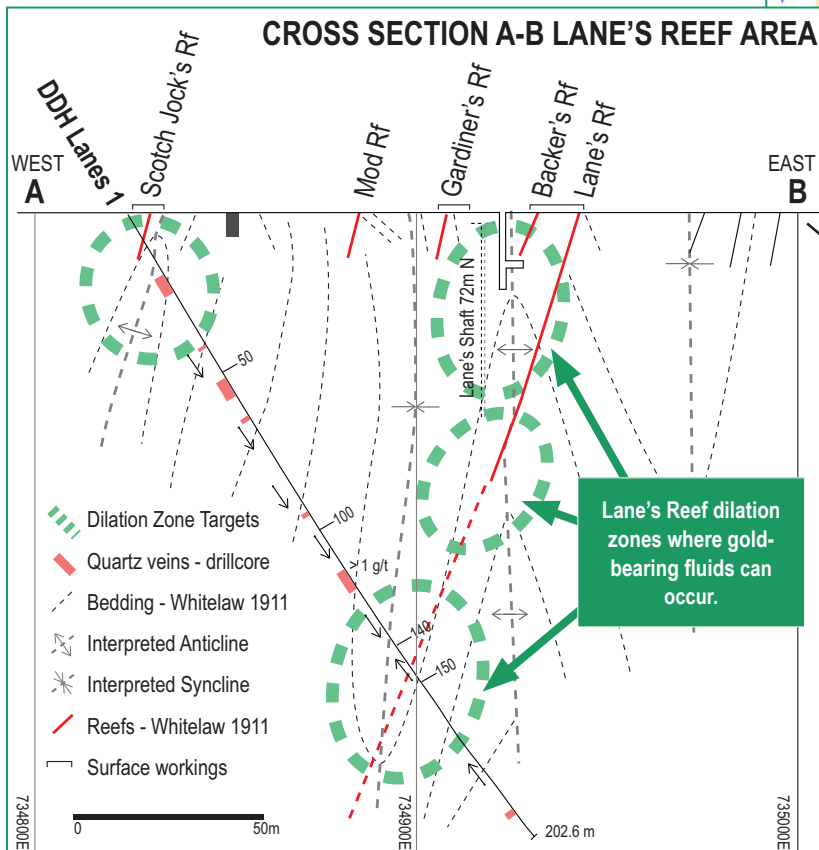
Interpretation from the core logging to date has established the structural setting of Scotch Jock's, Gardiner's and Baker's anticlines for a strike length of 1.75 km, noting that Gardiner's, Baker's and Lane's Reefs are north plunging from the southern end of Lane's Corridor whilst the plunge of the reefs in the north of Lane's Corridor is more difficult to determine.

Whilst several quartz reefs have been intersected in the north of Lane's Corridor, they have only tentatively been interpreted as Gardiner's, Baker's and Lane's Reefs.

LANE'S CORRIDOR

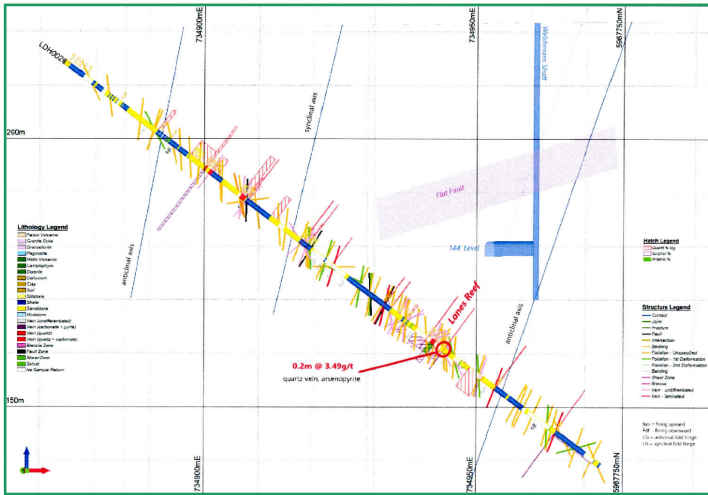


Geographic extent of Lane's Corridor drilling and digital 3D modelling.



INTERPRETATIONS FROM CORE LOGS

Referring to Whitelaw's cross-section of Scotch Jock's, Gardiner's, Baker's and Lane's Reef, note Lane's Reef is on the eastern side of Baker's anticline, the Whitelaw cross-section of Baker's reef in Baker's shaft depicts a cross fault in Baker's anticline plunging at 23°.



Looking at PSD Lanes corridor drill hole LDH002, Lane's Reef is interpreted to be on the west of Baker's anticline, if correct Lane's reef has crossed:

- the 23° plunging cross reef (depicted in Whitelaw's cross-section)
- the hinge of Baker's anticline (depicted in Whitelaw's cross-section)

The LDH002 drill log places Lane's Reef on the west side of Baker's anticline, whereas Whitelaw had Lane's Reef on the east side of Baker's anticline at Baker's shaft further south.

The position, of this crossover area, of both the cross fault and the hinge of Baker's anticline, by Lane's Reef, now become exploration targets capable of being located underground more accurately. Interpretation of the drill core from the current diamond drilling program is ongoing.

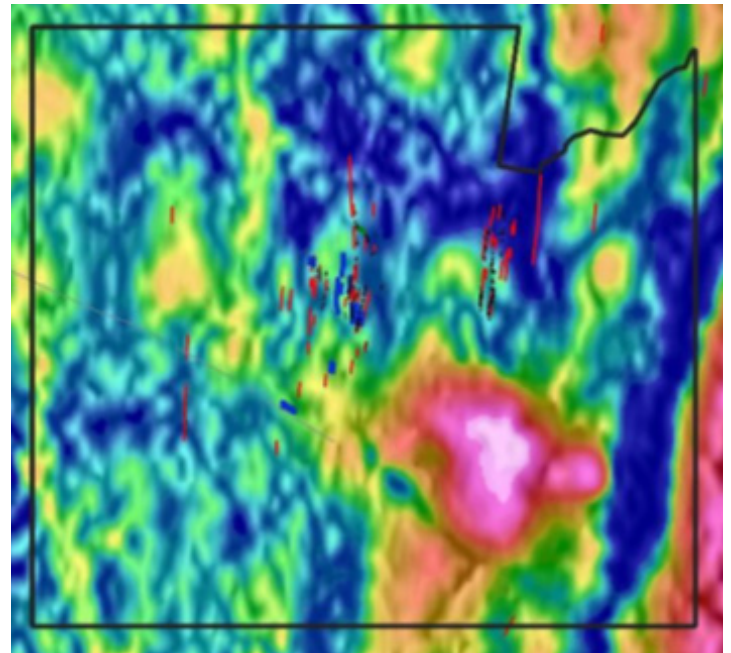
MAGNETIC AND CONDUCTIVITY MEASUREMENTS

Reinterpretation of historical airborne magnetics by PGN Geoscience (PGN) has shown that an area of increased magnetic intensity occurs within the EL, some 15 km in length and some 5 km wide, surrounded by different ages of granite outcropping.

PGN note: "Previously identified auriferous quartz reefs broadly correlate with North-South trending ~500 metre wide magnetic highs. -the ~500 metre wide, magnetic anomalies are likely produced by magnetic horizons from the top ~250 metres of the subsurface." (not from within the oxidised zone)

The airborne magnetics also define, interpreted major linear cross faults within the EL.

PGN note: "The cross faulting appears to produce local magnetite/pyrrhotite depletion in the sedimentary pile. DH03 appears to be drilled across one of these cross faults with a zone of distinct brecciation, sodic alteration and arsenopyrite mineralisation, at ~150-200 metres depth coincident with a depletion in magnetic susceptibility and wide zone (~100 metres) of increased conductivity. These relationships may be a useful for targeting."



PGN Geoscience image – aero magnetic geophysics.

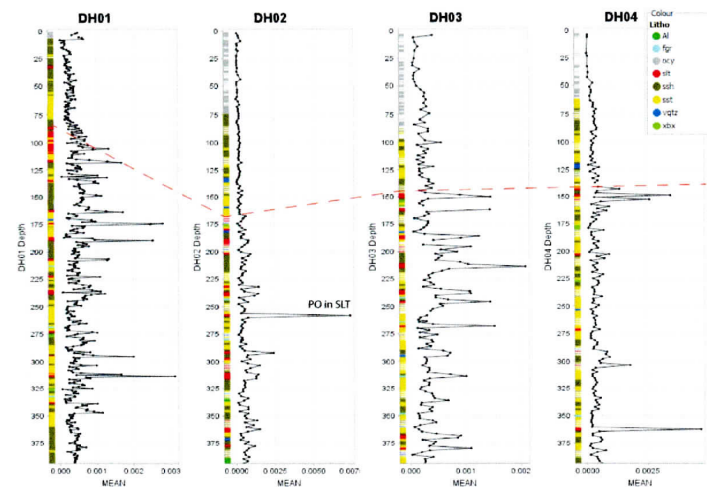
PGN note: "Outcrop mapping and historic drilling suggest the Wedderburn region is dominated by the early Ordovician deep marine turbidites of the Castlemaine Group."

The underlying Castlemaine Group is a prerequisite for gold deposition in the geological Bendigo Zone and thus on WGL's EL.

LITHOLOGY AND MAGNETICS

The sedimentary rocks of Central Victoria, which host significant gold mineralisation, are part of a suite of rocks deposited in deep water, so they form subtle variations of siltstones, shales and sandstones that are quite difficult to log visually. The magnetic susceptibility work by PGN has shown that at Wedderburn, the lithologies have distinct magnetic characteristics, potentially allowing for a more accurate interpretation of each lithology.

We believe this is a very important geological breakthrough that has potentially major ramifications for the understanding of the structural setting and prediction of major mineralised dilation zones.



PGN Geoscience image – lithology interpreted from magnetics.

Sandstones have the lower magnetic susceptibility, shale has an order of magnitude higher magnetic susceptibility, and siltstones have the highest magnetic susceptibility. The highest zone of magnetic susceptibility at Wedderburn to date occurs in a narrow layer of pyrrhotite within siltstone.

The magnetic susceptibilities for the same lithology decrease as the structures move north in Lanes Corridor.

PGN note: "Where the magnetic response decreases along strike (N-S) we interpret this indicate plunging hinge zones or transition into synclinal hinges."

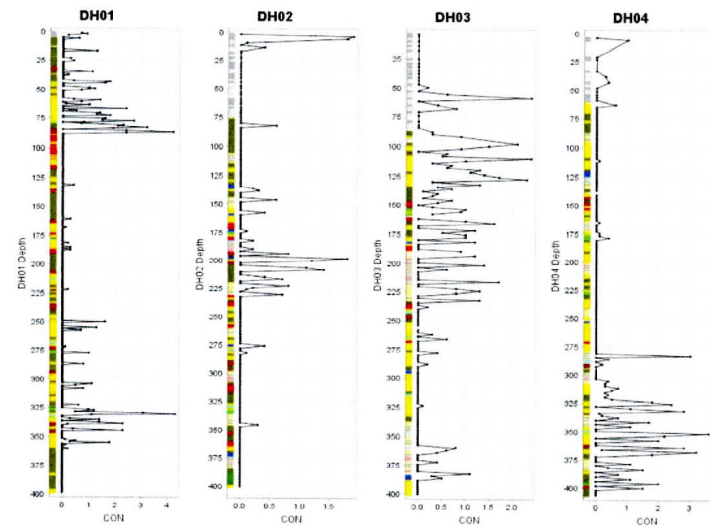
"N-S trending aeromagnetic lows correspond to regional synclines where the siltstones rich horizons are structurally lower producing a more subdued magnetic response due to increased source-to-sensor distance. This will require validation through structural logging".

The magnetic susceptibilities will be used to help define structure and lithology, which PGN will incorporate in the 3-D model it's developing for Lane's Corridor.



Pyrrhotite in interbedded shale-siltstone in DH02 at 258 metres

LITHOLOGY AND CONDUCTIVITY



PGN Geoscience image – conductivity related to lithology.

PGN Note: "The downhole hole conductivity analysis for DH01-4 reveals elevated conductivity for brecciated zones (xbx) and a wider zone of increased conductivity from 100 to ~226 metres in DH03 (Figure 20) which is coincident with the most altered and arsenopyrite mineralised zone. The most intensely altered zone sericite, arsenopyrite (~150- 180 metres interval) is characterised by a slight depletion in magnetic susceptibilities. On this basis, it may be possible to image mineralised zones (xbx) with airborne electrical resistivity (TEM) or IP whilst the background shales, sandstones, siltstones and rare dykes are not associated with any clear conductivity anomalies."



Visible gold seen in a brecciated quartz vein in DH03 at a depth of 162.35 metres.

ASSAY RESULTS

This update interprets data collected from the drilling campaign, completed by Wedderburn Goldfields Ltd, that systematically probed a 1.75 km strike length of the Lanes Corridor via 17 diamond drill core holes for a total of 3,317.6 metres of core.

A total of 845 half-core samples (including quality assurance reference samples) were analysed by ALS Adelaide (gold by fire-assay and multi-element by ICP).

Bendigo Zone goldfields are characterised by arsenopyrite pathfinders. WGL's drill-core assay results indicate the company's diamond drilling campaign has successfully identified structures at Wedderburn that are auriferous and contain pathfinder minerals (Table 1).

Table 1: Lanes Corridor Drilling Summary.

Hole ID	Azimuth	Dip	Depth (m)	Au (best intercept)	Comment
LDH001	110.3	-30	124	0.7m @ 1.21g/t from 54.15m	
LDH002	102.2	-37.5	125.75	0.2m @ 3.49g/t from 89m	Lanes Reef
LDH003	103	-46	113.95	0.1m @ 0.4g/t from 31.5m	
LDH003a	100	-25	28.5	no significant result	redrill of top portion of LDH003 due to poor sample recovery
LDH004	101.8	-51	118.5	0.5m @ 1.95g/t from 88m	
LDH005	100	-54	171	1m @ 0.53g/t from 5m	
LDH006a	103	-58	159	no significant result	LDH006 abandoned at 15m due to rig misalignment
LDH007	103	-58	153	0.3m @ 0.62g/t from 84m	
LDH008	103	-58	159	0.1m @ 0.48g/t from 114.6m	
LDH009	103	-65	156	0.25m @ 0.58g/t from 59.1m	
LDH010	103	-56	144	0.5m @ 1.37g/t from 93.4m	Edwards & Symons Reef
LDH010a	103	-30	123.8	0.3m @ 0.26g/t from 96.3m	collared at same location as LDH010
LDH011	99	-60	132	0.4m @ 0.12g/t from 84.4m	
DH01	103	-65	398.7	1.0m @ 0.03g/t from 127m	Lanes Reef Deepes
DH02	103	-55	401.6	0.75m @ 1.88g/t from 10.9m	Poverty Gully
DH03	103	-52.5	401.5	0.3m @ 0.66g/t from 1.7m	Queens Gully
DH04	103	-55	407.3	0.5m @ 0.23g/t from 229.9m	Edwards & Symons Deepes

STRUCTURES VS GRADE

Victoria's recorded gold production since 1851 is greater than 2,500 tonnes, or 1.5% of all the world's gold from just 0.03% of the world's land area. Geological Survey of Victoria estimates the state's goldfield geology is two orders of magnitude (100x) richer in gold than the global average, and that recent successful mines like Fosterfield, Costerfield and Tarnagulla show the state has more than 1,500 tonnes of gold still to be found and mined.

Modern exploration techniques including magnetics and conductivity give an added impetus to exploration and mineralisation research.

Science combined with conviction, persistence and patience are the keys to unlocking Victoria's golden opportunities – Fosterfield has shown the prize is worth the risk. One deposit has increased Victoria's share of Australian gold production from 1.5% to 5.6%.

Grade estimation

Victoria's often nuggety, coarse gold makes new exploration technologies like those being employed by WGL especially important.

For example, during 1989, Western Mining Corporation carried out an evaluation of the Poverty Reef at Tarnagulla. A 970 tonne bulk sample yielded a head grade of 7 g/t. Diamond drill core assays from both surface (NQ) and underground (BQ) drilling indicated a low grade in the 1 g/t to 3 g/t range. As a result, Western Mining chose to downgrade its exploration at Tarnagulla, put its operations in care and maintenance and release its subcontractors.

In 1994 Reef Mining discovered the Nick O'Time structure by surface diamond drilling on a 50 metre grid pattern along an interpreted south plunging zone south of the Poverty Reef workings. Grade estimates during exploration ranged from an original estimate of up to 10 g/t to between 5 g/t and >20 g/t. Figure 1 shows the difficulty of estimating grade in this setting with diamond drill assays wildly fluctuating from an extraordinary 759 g/t to 0.05 g/t.

THE BENDIGO ZONE

The Bendigo Zone is underlain by the Castlemaine group sediments, which are, in turn, underlain by the Cambrian mafic volcanics, which are generally thought to be the origin of the gold.

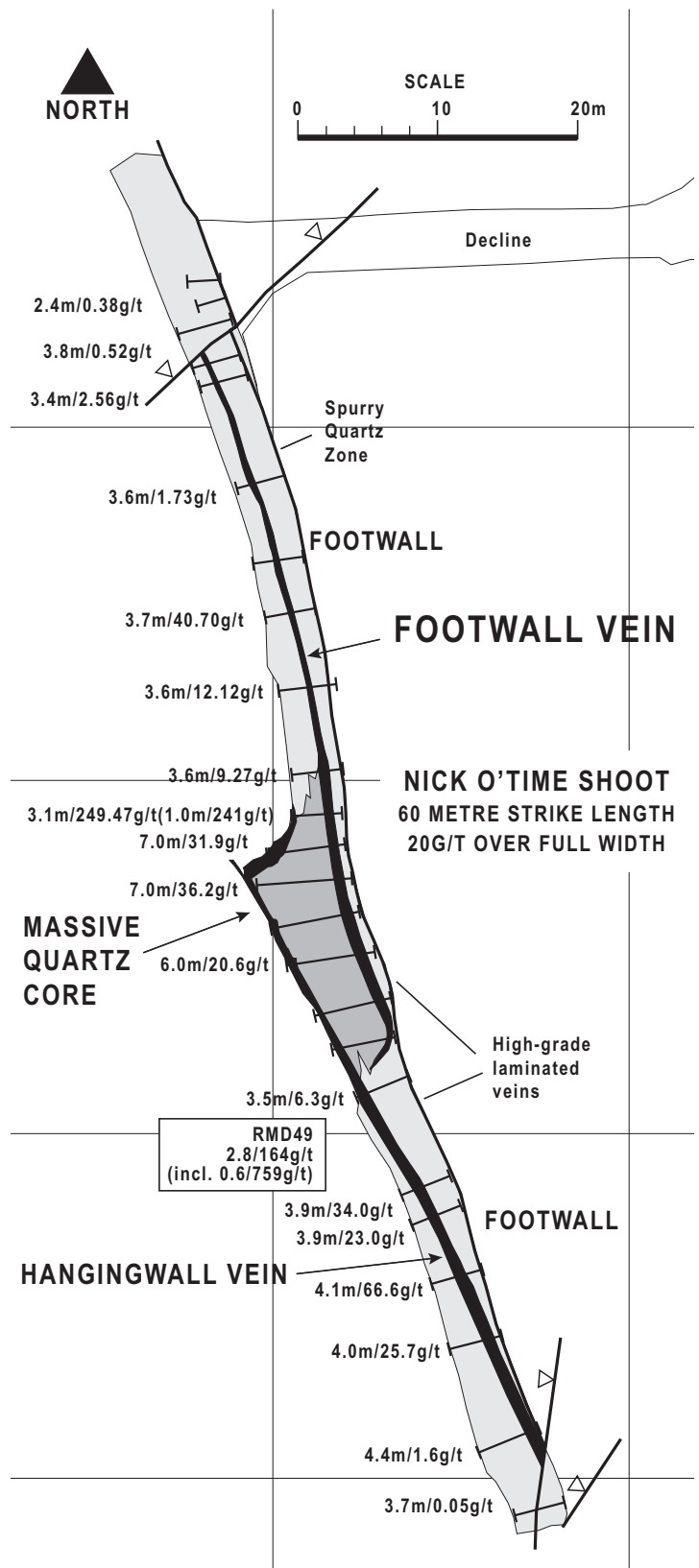
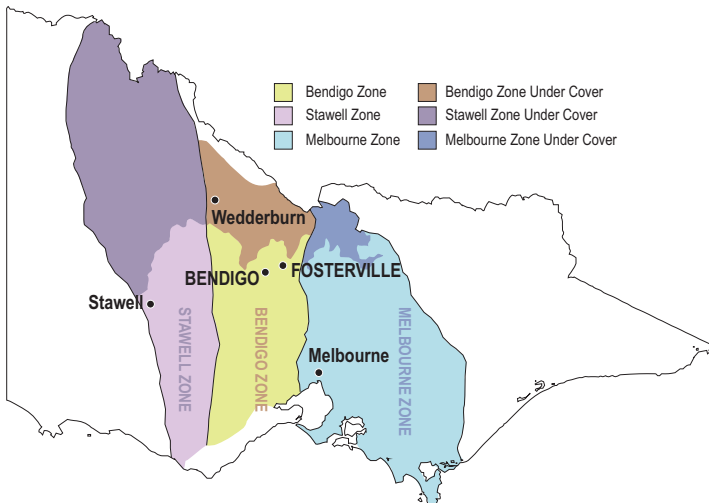
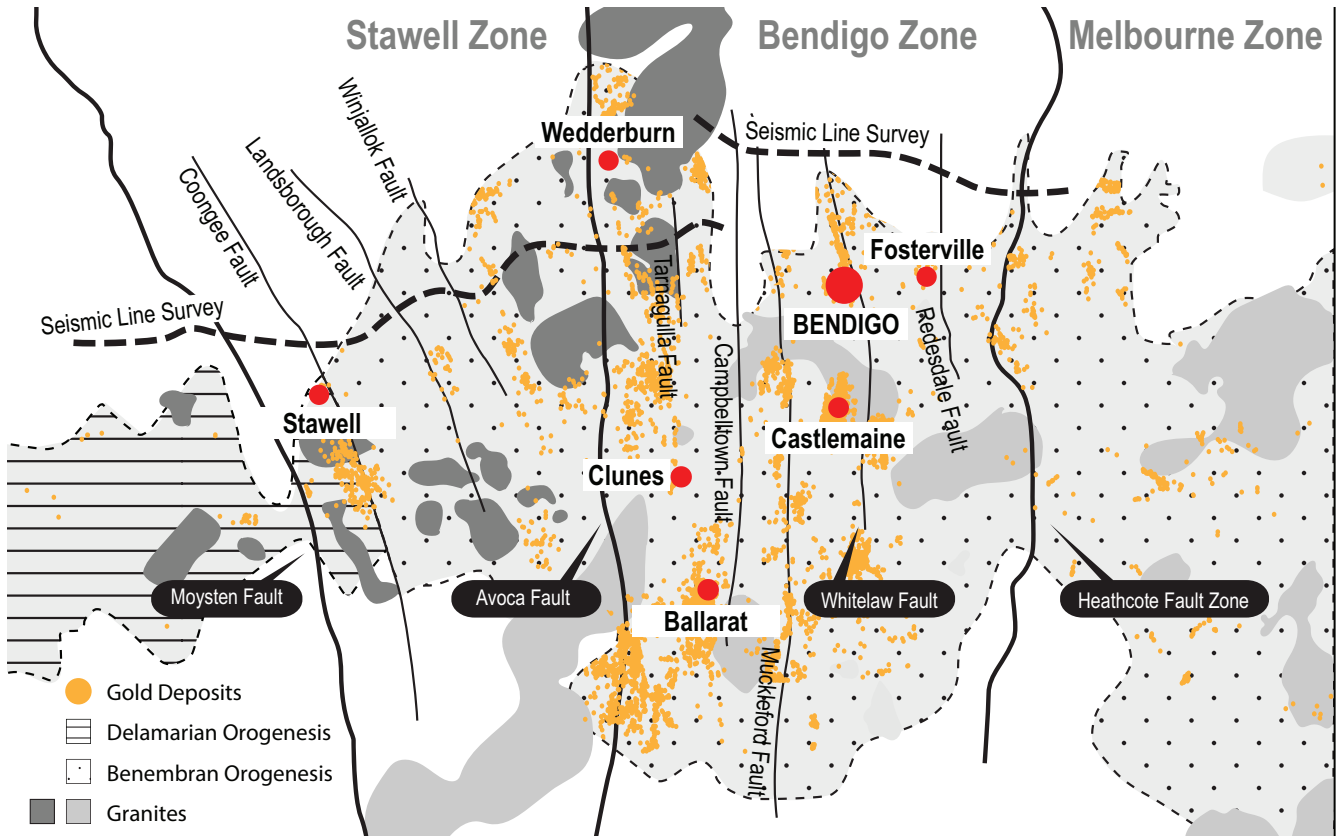


Fig 1 Geological level plan, mining stope block 2E, level 990mRL, Nick O'Time Oreshoot, Poverty Reef.



Pervasive sericite alteration within DH03 from ~150-180 metres

DEEP CRUSTAL STRUCTURE OF THE WEDDERBURN GOLDFIELD



The Wedderburn Goldfield sits near the western margin of the Bendigo structural zone of Victoria.

The Bendigo zone has the greatest gold production, 2049 tonnes, of all Victorian geological structural zones.

It contains most of the state's major historical mining centres such as Bendigo, Fosterville, Ballarat, Castlemaine and Clunes.

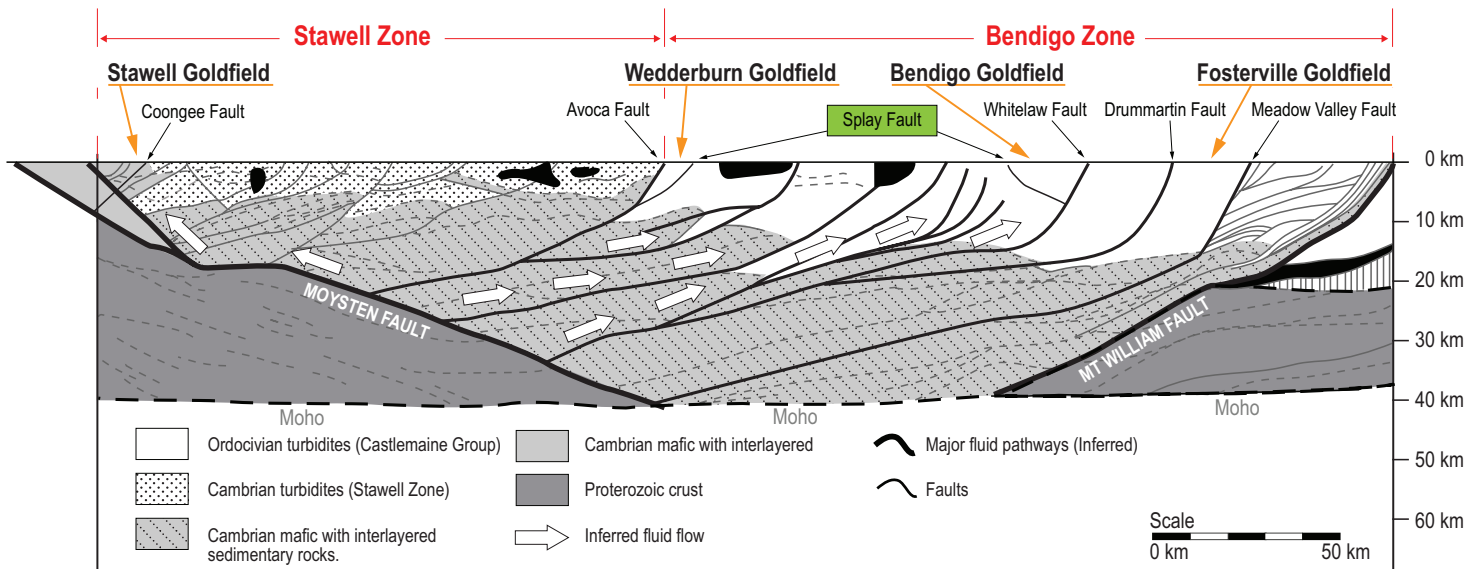
Wedderburn is in many ways typical of other central Victorian gold deposits

with comparable styles of mineralisation and structural controls.

However, Wedderburn is atypical with regard to its location as it lies just 5 km from the Bendigo Zone's western margin, which is defined by the Avoca Fault.

Wedderburn has a significant east-west spread of about 5 km and a strike length of up to 7.5 km.

Within the Wedderburn Goldfield there are three groups, or clusters of reefs – the Western, Central and Eastern Groups, each separated by low-production zones.



The stratigraphy beneath Wedderburn is best shown by the results of the 2006 deep seismic survey. The rocks in the upper crust are dominated by a sequence of marine sandstones and mudstones. These turbidites are known as the Castlemaine Group and overlie Cambrian mafic volcanics at depth.

The Castlemaine Group is the main host for orogenic gold mineralisation in the Bendigo Zone. The Stawell Zone, which lies immediately west of Wedderburn, has a very similar stratigraphy, but in the Stawell Zone the turbidites are Cambrian in age.

The Bendigo Zone was deformed by the Benambran Orogeny (~ 445 Ma) which caused all the turbidites to be folded and faulted and initiated a major influx of 'orogenic' gold mineralisation.

Whereas the Castlemaine Group turbidites were deformed mainly by folding and faulting, the deeper mafic volcanics were deformed into a series of imbricated thrust slices (much like tilting books on a bookshelf).

So it is likely that crustal-scale faults focused gold-bearing fluids into the Wedderburn area during the main mineralising event (probably about 445 Ma).

The 2006 seismic survey revealed several large faults occur at depth in the western Bendigo Zone.

One fault was inferred to splay from the footwall of the Avoca Fault into the area south of Wedderburn – this fault may be one of the fluid pathways that focused gold-bearing fluids into the vicinity of Wedderburn.