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## A Major Three Dimensional Induced Polarisation Electrical Geophysical Survey Has Commenced at the Moina Project in Tasmania, Targeting World Class Intrusive Related Gold Deposits

Frontier Resources Ltd is pleased to announce that the data collection phase of a very large three dimensional induced polarisation (3D-IP) electrical geophysical survey has commenced at the Moina Project in Tasmania, Australia (figure 1).

Grid line cutting was completed over an area of 24 sq km in preparation for the survey and 128 line kilometres were cut in 2 months by 3 pairs of grid cutters. Soil samples will be collected as required.

*The 3D-IP survey will be used to target major and World Class 'Intrusive Related' gold deposits associated with the Dolcoath Granite and it will also substantially assist drill target delineation related to the recently defined tungsten, tin, molybdenum, bismuth, lead and zinc soil anomalies.*

*The Dolcoath intrusive is a highly fertile granite that intruded into a very favourable geological environment for the formation of mineral deposits and has introduced gold, silver, tungsten, tin, bismuth, molybdenum, fluorine, lead and zinc into several known deposits in the district.*

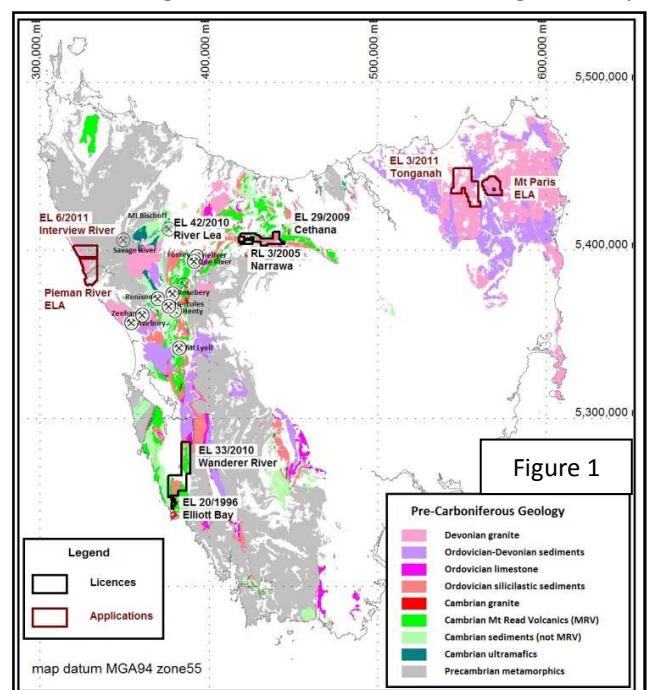
*Deeper seeking 3D-IP has never been undertaken in this region in Tasmania or on this scale before and the excluded 12sq km sub-blocks within the Cethana EL hold the world's largest undeveloped fluorite deposit plus a modest gold - zinc skarn.*

Managing Director - Peter McNeil, M.Sc.

Frontier's ambitious geophysical survey will better define the known gold occurrences, but more significantly, it will give the first look beneath the shallow basalt that covers about half the licence and it will give the first deeper look over the whole grid.

**Excellent gold potential exists in a number of geological settings at the Moina Project, often with known high grades of mineralisation including:**

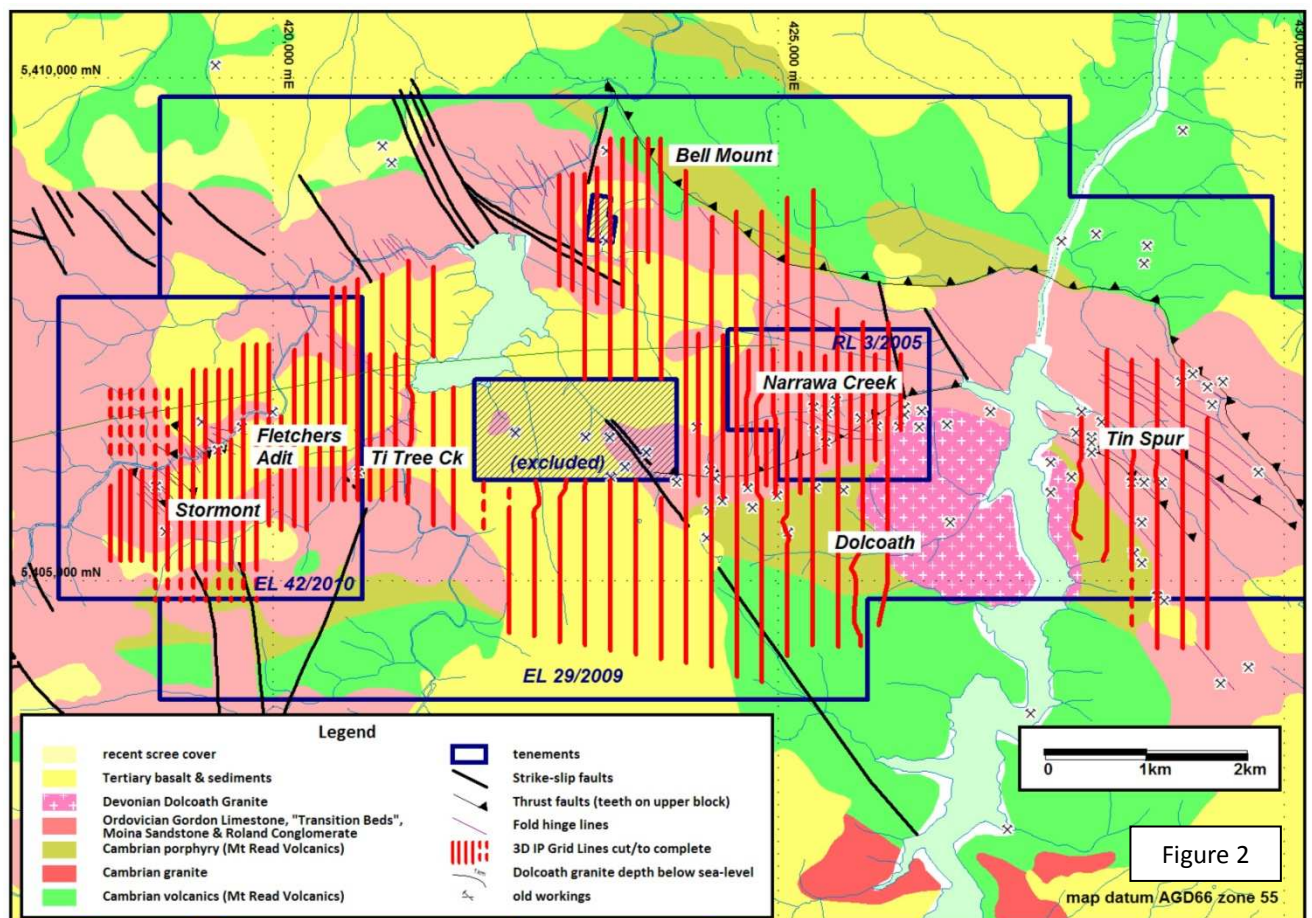
- **Narrawa (Higgs) Deposit** with an Indicated + Inferred Resource of 209,330 tonnes grading 2.1g/t gold, 19.5g/t silver, 1.12% lead and 1.32% zinc.
  - **666 Lode** with 1.5m of 25.2 g/t gold in hole NC025, 2m of 14.98 g/t gold in NC035, 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold in NC036.
  - **400 Lode** is potentially expressed by a 500m gold soil anomaly at >200ppb (0.2 g/t) gold.
  - **1.3km** long zone of gold anomalous soils.



- **Stormont Deposit** with an Inferred Resource of 91,400 tonnes grading 4.57g/t gold, 0.3% bismuth and 3.5g/t silver in a gold + bismuth skarn. Recent drilling has confirmed grades and widths with 17.6m grading 10.8g/t gold in SFD021 and 15.0m grading 17.7g/t gold in SFD20 from surface and has also extended the resource to the southeast with 6.5m grading 6.56g/t gold in SFD22.
  - **Southeast Inferred Resource Extensions** - known in drill holes with assay results such as 4.4m grading 12.7g/t gold (SD010), 1.5m grading 9.0g/t gold (SD033) and 8.0m grading 1.81g/t gold (SD044).
  - **Western Syncline** - known in drill holes with assay results such as 2.0m of 3.50g/t gold (ST004).
- **Tin Spur** - a 1,000m x 250 to 500m tin+/-gold in soil anomaly. The old workings exist on gold + tin targets, with rocks such as 7.1, 6.8 and 4.5g/t gold and 1.1, 0.72 and 0.51% tin. Historic trenching demonstrated 21m grading 1.0g/t gold, 7.0m of 2.1g/t gold and 7.0m of 1.6g/t gold.
- **Fletchers Adit Gold Skarn** - limited drilling has shown 2.0m grading 1.5g/t gold in FD007 and 21m of skarn averaging 0.3g/t gold in FD008.
- **Bell Mount** - the target is the source of >5000oz's of alluvial gold, with nuggets up to 22 oz.
  - 3D-IP can detect disseminated sulphides that could be associated with gold deposits to depths in excess of 800m below surface (the maximum modelled depth depends on many variables), hence most of the subsurface Dolcoath Granite within the project area will be covered and assessed.

### Survey Aims

The 3D-IP survey has been designed to explore for gold deposits through 3D models of chargeability, resistivity and conductivity generated from the survey, that will also help targeting the extensive tungsten, tin, bismuth and molybdenum soil anomalies defined earlier in the year. The grid is shown in figure 2 below.

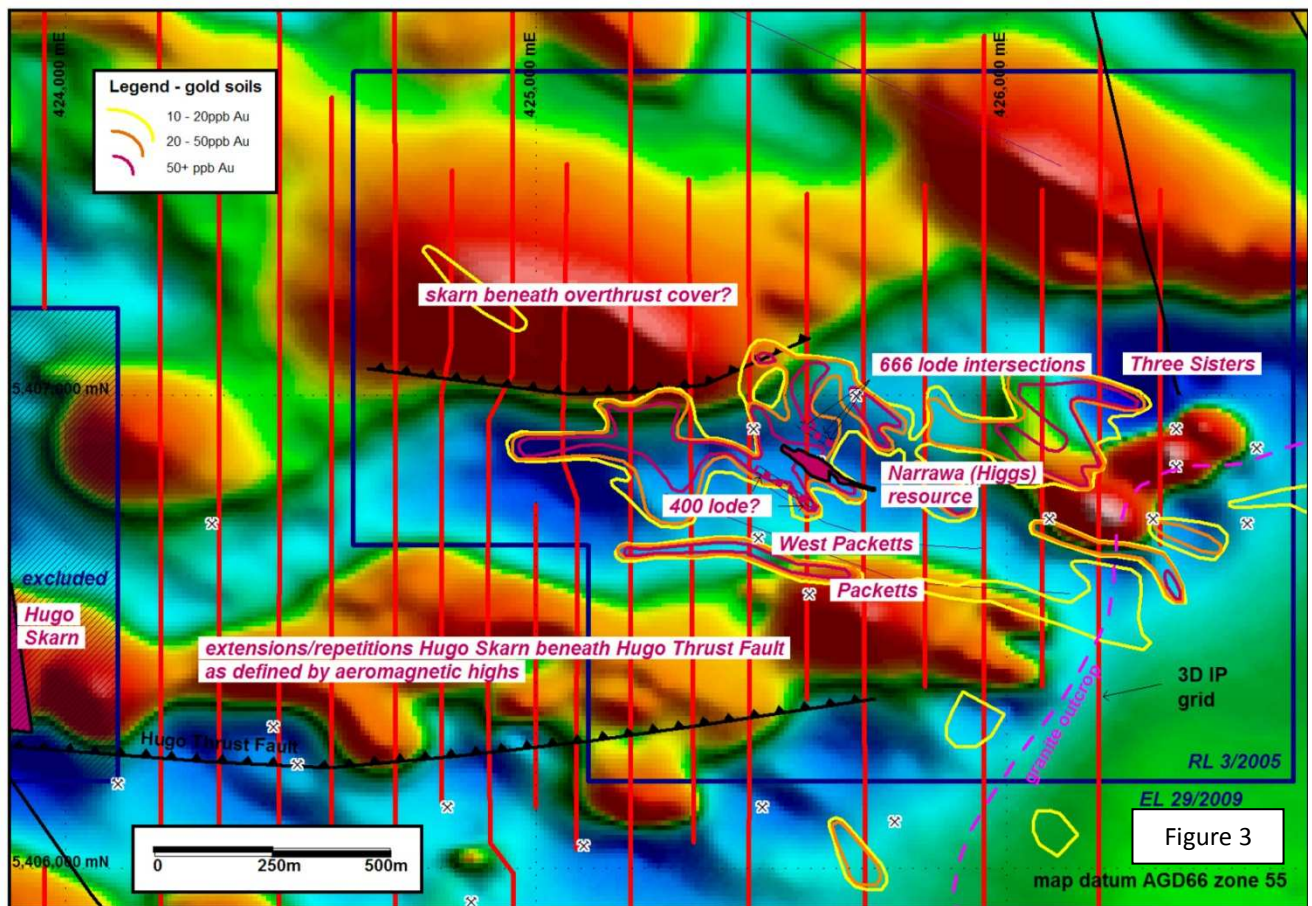


The Moina Project has excellent potential for a standalone gold deposit or a cluster of smaller, potentially higher grade, deposits. Two small gold resources have already been discovered and defined as noted above:

**Narrawa (Higgs) Deposit** consists of disseminated to semi-massive base metals (copper, lead, zinc) in skarn.

Further potential for adding to this resource includes the following (figure 3):





- The largely untested **666 lode** is located to immediate northeast and parallel to the Narrawa Indicated Resource, with drill intercepts of 1.5m grading 25.2 g/t gold (NC025), 2m of 14.98 g/t gold (NC035), 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold (NC036).
- The parallel **400 lode** has only been tested at depth at the southern end of the resource and is potentially expressed by a 500m gold soil anomaly (at more than 200ppb gold).
- 1.3km long zone of gold anomalous soils (with support from tin, lead, zinc, tungsten and molybdenum that act as pathfinder elements) with limited drilling due in part to difficult access that has been addressed by Frontier's purchase of a unique small man portable diamond drill rig.
- Gold anomalous soils (supported by tungsten, tin, molybdenum, bismuth) associated with Three Sisters magnetics anomaly associated with fractionated pegmatite dykes
- Gold with disseminated pyrite associated with tungsten+/-tin + quartz veining in old workings on the western side of Lake Cethana (Packetts).
- Overthrust extension/repetition of adjacent gold + zinc Hugo Skarn potential resource (held by a competitor, with ~250,000 tonnes grading 5-6% zinc, 1g/t gold and 0.1% bismuth) expressed by magnetic anomaly extending 1-2km into Frontier's ground.
- Enigmatic magnetic anomaly potentially gold skarn overthrust by Moina Sandstone to northeast of Narrawa (Higgs) Indicated Resource.

**The Stormont Deposit** and Inferred Resource (noted above) is a gold + bismuth skarn. Recent drilling confirmed grades and widths of mineralisation, with 17.6m grading 10.8g/t gold in SFD021 and 15.0m of 17.7g/t gold in SFD020 from surface and has also extended the resource to the southeast in SFD022 with 6.5m of 6.56g/t gold.

Further potential for adding to this resource includes the following (figure 4 and 5):

- **Southeast Resource Extensions** beyond SFD022 with previous intersections of 4.4m grading 12.7g/t gold (SD010), 1.5m grading 9.0g/t gold (SD033) and 8.0m grading 1.81g/t gold (SD044).



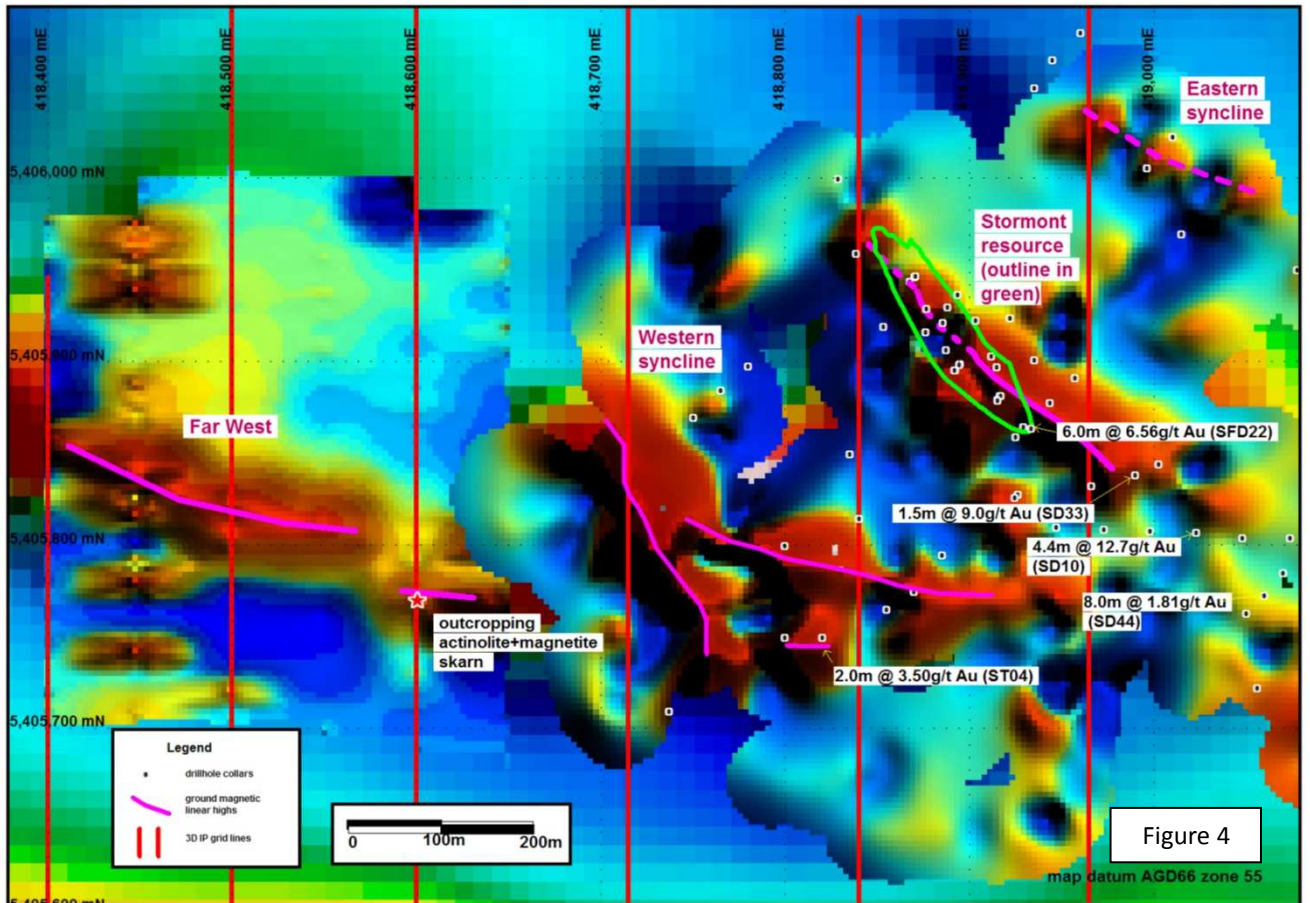


Figure 4

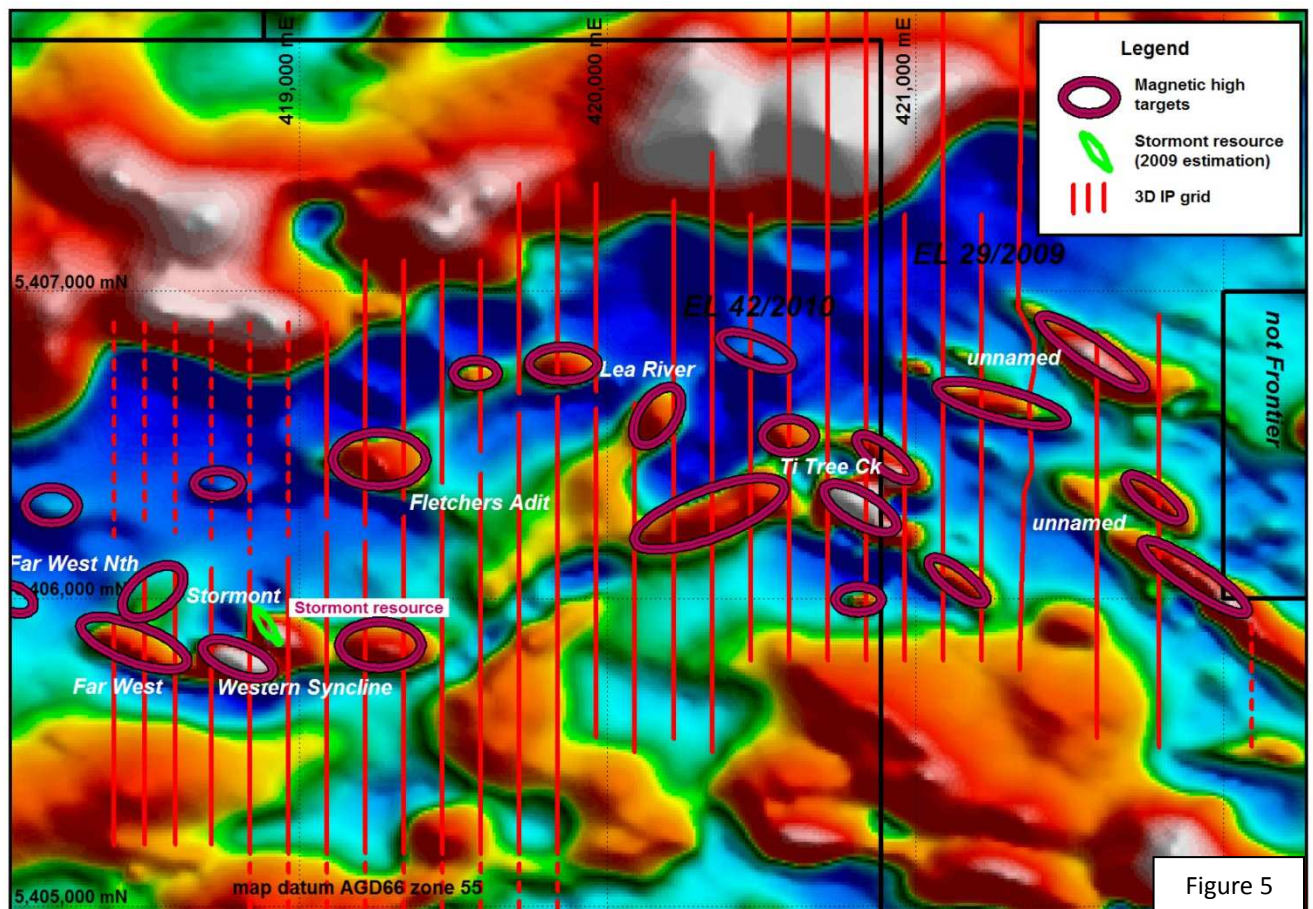


Figure 5

- **Western Syncline.** Parallel magnetic anomaly analogous to Stormont with very limited, poorly targeted drilling including 2.0m grading 3.50g/t gold (ST004).



- **Far west.** Ground magnetics has refined the location of the Far West magnetics anomaly. Reconnaissance mapping has located Stormont style magnetite+actinolite mineralisation outcropping in a creek (gold assays awaited).

Apart from these two resources, gold mineralisation in the Moina Project area also occurs at:

- **Tin Spur.** Disseminated pyrite + gold + tin occur in the Moina Sandstone at Tin Spur on the east side of Lake Cethana (figure 6). A number of historical workings (Ashworths, Star of Peace, Goreys, Razorback, Falls, Coronation, Stag, Thomas) have targeted this mineralisation which is associated with a 1000m x 250-500m tin soil anomaly that Frontier defined earlier this year. Limited previous exploration has returned grades of up to 7.1 g/t, 6.8 g/t and 4.5g/t gold and 1.1%, 0.72% and 0.51% tin.

Historic trenching revealed 21m grading 1.0g/t gold, 7.0m grading 2.1g/t gold and 7.0m grading 1.6g/t gold over a strike length of 300m (Smyth, 1982).

Gold skarn mineralisation is also known at:

- **Fletchers Adit.** Gold bearing actinolite + garnet skarn with only 8 shallow drillholes. Skarn thickens markedly northwards disappearing under basalt cover with the northernmost drillholes FD7 and FD8 intersecting, 2.0m grading 1.5g/t gold and 21m of skarn averaging 0.3g/t gold respectively.

- **Ti Tree Creek.** Extensive area of gold bearing skarn obscured for the most part by Tertiary basalt (<20-50m thick) with only 8 drillholes in total.
- **Heli-magnetic anomalies.** Existing heli-magnetic data has been processed and imaged to reveal a number of magnetic anomalies analogous to the Stormont, Fletchers Adit and Ti Tree Creek anomalies. Most of these anomalies lie beneath shallow Tertiary basalt cover and have NEVER been evaluated.
- **Bell Mount.** The Bell Mount alluvials lie within a small excised Mining Lease within Frontier's Cethana EL 29/2009 (figure 7). Highly significant is the location, geology and fact that over 5000 oz's of commonly coarse gold has historically been won from the alluvials, with nuggets up to 22½ oz.

The alluvials occupy a basin bounded by hills to the west, north and northeast. Gold is generally angular and found in a wash of angular Moina Sandstone and Roland Conglomerate in a number of alluvial leads which run up-slope into Frontier's EL 29/2009. Gold has been found fully enclosed in Moina Sandstone boulders.

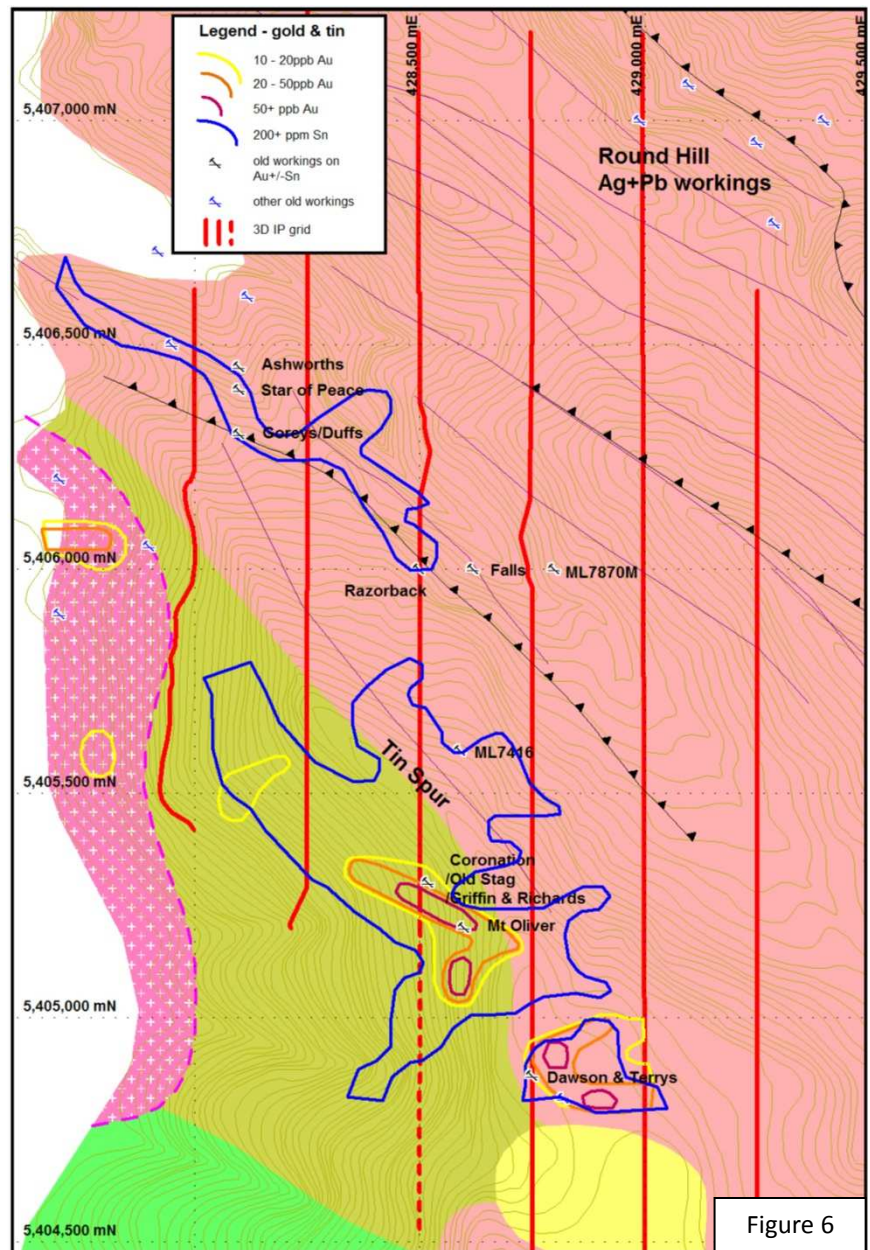


Figure 6

**Stormont Mine (Historic).** The Stormont Gold Mine lies to the south of the Stormont gold + bismuth skarn Deposit, but probably along the same north-northwest striking fault. Mineralisation occurs as quartz veining along this shear. The mine lies within the centre of a gold stream drainage anomaly defined by earlier explorers but never followed up.

Induced Polarisation (IP) maps out the 3D location of concentrations of sulphides, particularly disseminated, at depth.

**Geology of Gold Source, Plumbing System and Traps**

All known gold mineralisation styles should have a distinctive signature from the 3D-IP surveying; they are all associated with sulphides (chargeability and / or conductivity anomalies) and variable alteration (resistivity anomalies), except Stormont, which is non-sulphidic but is associated with magnetite which responds to IP and may be considered as an end-member in terms of sulphide content.

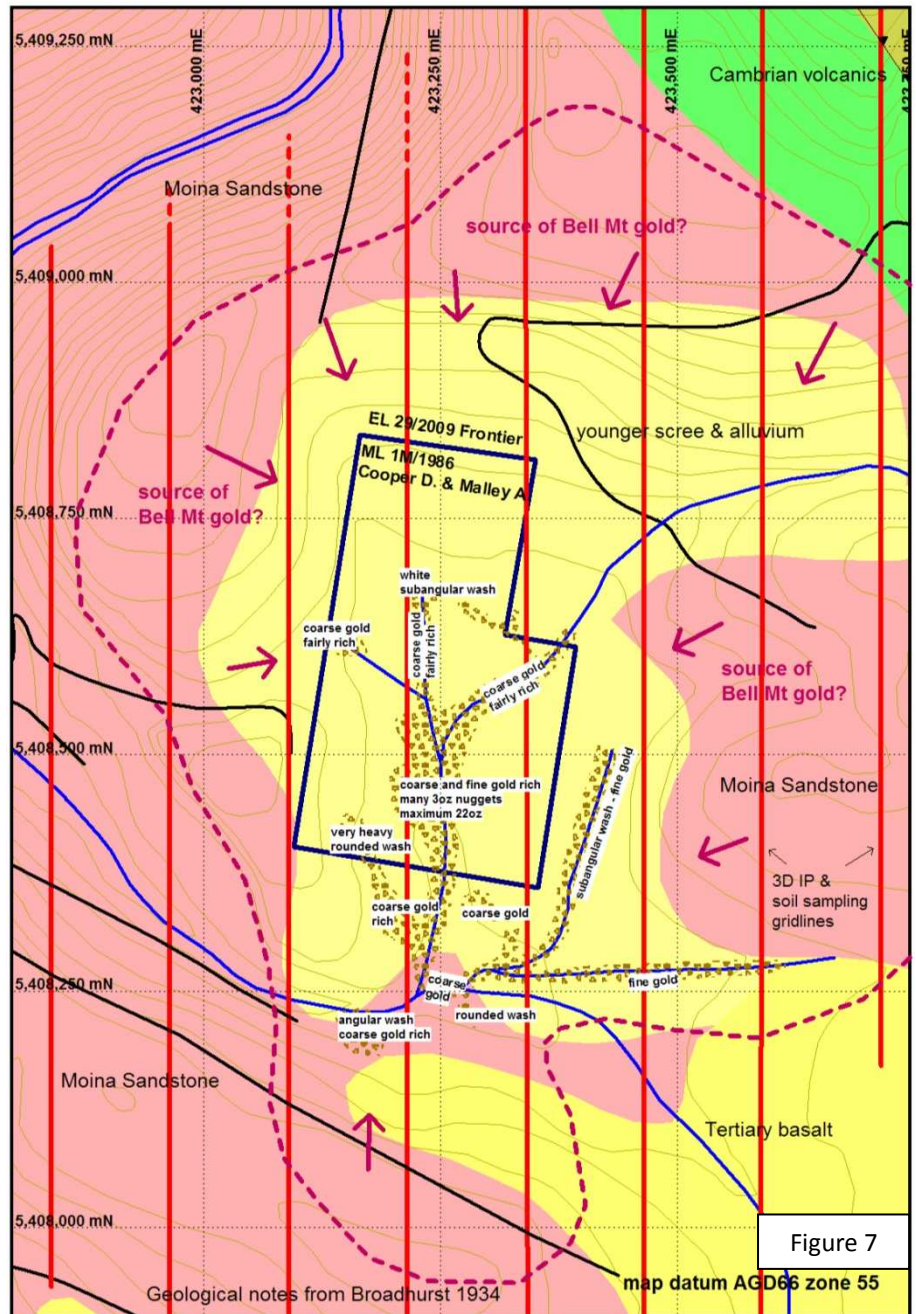
Essentially all known

mineralisation in the Moina Project is genetically associated with the Dolcoath Granite. The granite crops out on both sides of Lake Cethana, however, gravity and magnetic data supported by a few drillhole intersections indicate the granite extends at a shallow depth (<500m) as far west as Stormont. A 3D north looking view of the granite at depth is shown below.

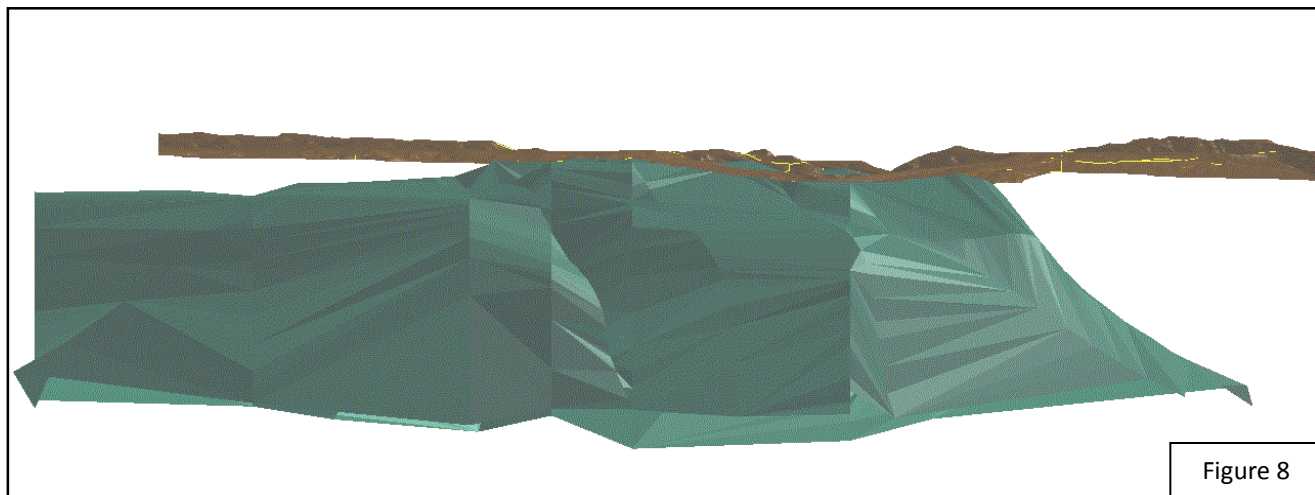
The Dolcoath Granite is a highly fertile intrusive which was emplaced as liquid magma in the Middle Devonian Tabberrabberan Orogeny (an orogeny is a 'mountain building' event). This orogeny was also responsible for the 2+ million ounce Tasmania Reef at Beaconsfield, as well as most other gold deposits in Tasmania's north and northeast.

The granite has intruded the Cambro-Ordovician sequence of volcanics, quartz sandstones, minor conglomerates and limestone in the Moina area. The physical and/or chemical characteristics of these rocks are such that they either make highly suitable trap rocks themselves (e.g. reactive carbonate bearing limestone) or deform structurally in ways ideal for the creation of structural trap sites (e.g. dilatant zones in faults).

Figure 8 shows the Dolcoath Granite looking north, with granite in blue/green and the surface in brown. As an indicator of scale, the granite model is shown to ~4km below surface and the gap between the surface and the granite is about 500m. Note the subsurface granite spine that extends to west and is being targeted by Frontier with the 3D-IP survey.







The Dolcoath intrusion occurred late in the orogeny after southwest directed thrust faulting, accompanying strike-slip faulting and two generations of folding had occurred in the district. The Moina area is a major junction in Tasmania's crustal architecture (intersecting faults etc). The faulting in particular created an extensive pre-existing plumbing system for the passage of mineralising fluids, that were later exploited by them.

Cooling of the granitic magma and early crystallisation of non-ore minerals resulted in the fractionation of ore mineral rich hydrothermal fluid on the margins of the granite. Further cooling and hardening of the granite forced this fractionated fluid out along faults and fractures along which the fluids passed until reaching favourable trap sites.

The hydrothermal fluid produced by the Dolcoath Granite contained high concentrations of gold, tungsten, tin, bismuth, molybdenum, silver, fluorine and lesser lead and zinc.

All of the gold mineralisation styles have a genetic and spatial relationship with the Dolcoath Granite. Modelling of the subsurface shape of the granite (from gravity and magnetics data) and knowledge of the spatial and geological settings of the known gold occurrences has been used to define the area of interest.

Approximately half the area of interest at the Moina Project is covered by a thin veneer (<50m thick) of younger (Tertiary) basalt and sediments, with no surface expression to possibly buried mineralisation. The IP survey will allow us to 'see' beneath this basalt cover.

#### **Survey Area**

The grid covers a total area of 33 sq km extending 11 km east-west and by up to 5½ km north-south though the actual survey area is 24sq km. In total 128 line kilometres of grid have been cut for the survey by 3 teams of 2 grid cutters over the last 2 months.

The grid lines (and thus survey spacing) was cut at two nominal spacings. The whole area was cut at 250m spacings with a number of areas also cut to a 125m line spacing. The wide spaced lines are designed for deeper penetration /evaluation (to 800m) with the closer spaced grid for providing higher resolution.

The close spaced gridded areas are at the Narrawa Deposit, Bell Mount, Stormont-Fletchers Adit and Ti Tree Creek. Other areas will be also surveyed at closer spacings if initial results justify it. The grid does not extend around the northern side of the exposed Dolcoath Granite at this stage due to difficult topography.

#### **Survey Methodology and Timing**

The 3D-IP surveying is being done by SJ Geophysics of Vancouver, Canada, using their proprietary system that was highly effective at the Andewa Project in Papua New Guinea. Surveying will likely continue into 2012.

#### **Soil Sampling**

Much of the outcropping prospective rocks (i.e. areas not covered by the thin basalt cover) were soil sampled earlier in 2011/2010. That work defined extensive zones of anomalous tungsten, tin, molybdenum, bismuth and copper and gold. Grid lines (that were not previously sampled) will be targeted for soil sampling later in 2011. The Bell Mount goldfield and Stormont Deposit areas will be prioritised.

For information relating to Frontier Resources and/ or its projects, please visit the Company's website at [www.frontierresources.com.au](http://www.frontierresources.com.au) or feel free to contact me.

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P.A. McNeil, M.Sc.

CHAIRMAN / MANAGING DIRECTOR

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by, or compiled under the supervision of Peter A. McNeil - Member of the Aust. Inst. of Geoscientists. Peter McNeil is the Managing Director of Frontier Resources, who consults to the Company. Peter McNeil has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter McNeil consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.