

ADDRESS PO Box 35 North Perth WA 6906 Australia ABN 96 095 684 389 PHONE +61 (08) 9295 0388 FAX +61 (08) 9295 3480 EMAIL info@frontierresources.com.au WEBSITE www.frontierresources.com.au

ASX Limited Company Announcements Office

30th July 2009

TECHNICAL REPORT - QUARTER ENDED 30th June 2009

Resource estimations were completed for the Narrawa and Stormont Deposits, based on all applicable drilling and trenching to date and in accordance with the 2004 JORC code.

Frontier currently has a resource base in both deposits exceeding 28,700 ounces of gold + 144,000 ounces of silver + 2,765 tonnes of lead + 2,335 tonnes of zinc + 320 tonnes of bismuth, within approximately 334,000 tonnes of mineralised rock (see below for tonnes/grade).

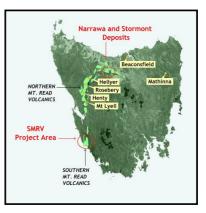
The Conceptual Mining Study is being revised and it will evaluate the probable economics of the project and recommend a possible development path forward.

The Narrawa and Stormont Deposits are located 6.5km apart in central - northern Tasmania (figure 1), Australia, proximal to necessary infrastructure such as power, roads and skilled workers.

The Tasmanian Government is supportive of mining and exploration and the existing Retention and/or Exploration Licenses have recently been renewed, or remain in good standing.

Narrawa Deposit

- The precious and base metal resource for the Narrawa Deposit was upgraded to Indicated and Inferred, containing 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent (0.5g/t gold cut-off grade).
- The resource consists of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc. The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc.



- An Indicated Resource was estimated for the first time and it consists of 162,755 tonnes grading 3.61 g/t gold equivalent (2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc).
- Approximately 85% of the tonnage of the previous Inferred Resource at Narrawa was converted to Indicated Resource from the latest round of work.
- There was a 9% increase in tonnage of the total resource from the mid-late 2008 drilling program, however, the gold grade decreased by 23% due to the lower overall grade associated with infill drill holes.
- Narrawa is a steeply dipping, on/near surface, stratabound/stratiform skarn deposit. Significant gold and base metal intersections have been demonstrated by Frontier's drilling over the entire length of the deposit, with the Indicated and Inferred Resource being approximately to 220m long, 20m wide and 60m deep.

• Good scope exists to continue to increase the Narrawa Resource along strike in both directions, within the fault offset dip component and in other relatively untested sectors of the project area. This will require additional drilling.

Mineralisation potential exists along strike to the southeast, with additional drillholes yielding 3.7m of 1.11 g/t gold (NC016) and 1.35m of 0.19g/t gold + 42 g/t silver+ 2.0% lead + 1.46% zinc + 0.25% copper (also NC016) and 2.2m of 0.12g/t gold + 15 g/t silver+ 0.79% lead + 3.26% zinc + 0.25% copper associated with a UTEM anomaly (NC017).

In addition, across strike in the 666 lode (<u>not included</u> in the resource estimation), there are mineralised holes that include 1.5m of 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).

Stormont Deposit

- The maiden Inferred Resource for the 'high grade' zone at Stormont contains 13,430 ounces gold plus 27.7 tonnes bismuth, plus 10,340 ounces silver, within 91,400 tonnes of mineralised rock grading <u>4.57g/t gold</u>, 0.30% bismuth and 3.52g/t silver (1.5g/t gold cut-off grade).
- There is a strong possibility that the gold grade of the resource could be underestimated by the order of 7% to 9% due to a discrepancy with the gold assays of Frontier's supplied certified gold standard and thus the final drill core and channel sample assay results (the certified value for the standard is 5.96 g/t gold yet 26 assays of the standard by the assay laboratory consistently assayed 10.5% below this, averaging 5.34 g/t).
- Stormont is a skarn-style stratiform deposit located in the core and on the limbs of a shallowly southeasterly plunging syncline (at its northwestern end). The deposit is located on or very near surface and ranges in stratigraphic thickness between 10m and 15m.
- A consistently mineralised resource was modelled in a <u>150m</u> long NW part of the central syncline, referred to as the high grade zone.
- There is good scope to increase the resource with additional drilling in the SE of the central syncline, the untested western sector of the western syncline and proximal to the eastern thrust.
- Significant high grade gold+/-bismuth intersections have been demonstrated over the entire <u>300m</u> known length of the central syncline, with drillholes SD8, SD10, SD33 and SD44, returning up to 4m of 12.7 g/t gold (see figure 11), <u>not included</u> in the resource.

DETAILS

Narrawa Gold - Base Metal Deposit (RL 4/2005)

Mineral exploration and resource estimation Consultant Mr. G. MacDonald was commissioned by Frontier Resources Ltd (Frontier) to complete a geostatistical resource estimate of the Narrawa Deposit, using all available drilling assays, the pre-existing 2009 Geostat Services Surpac resource model and an improved understanding of the deposit geology.

Resource Estimation

An Indicated and Inferred Resource was estimated geostatistically for Narrawa, using SURPAC resource estimation software. The Resource has been classified in accordance with the guidelines outlined in the "Australian Code for Reporting of Identified Mineral Resources and Ore Reserves" (JORC, 2004 edition).

Assessment criteria include drillhole spacing, sample locations, sampling density, lode geometry, geological confidence and grade continuity.

The mineralised zone in the estimate was modelled as a moderate - steeply dipping, linear, stratiform/stratabound body up to approximately 220m long, 20m wide and 60m deep.

The tonnes of mineralisation and associated grade of gold, silver, lead and zinc at various gold cutoff grades are shown in Table 1 below.

| | | | Indica | ated | | | | | Infer | red | | | | | Tot | al | | |
|-------|---------|----------------|-------------|-----------|-----------|-------------|--------|----------------|-------------|-----------|-----------|-------------|---------|----------------|-------------|-----------|-----------|-------------|
| Lode | Tonnes | Au (Eq g/t) | Au (g/t) | Pb (%) | Zn (%) | Ag (g/t) | Tonnes | Au (Eq g/t) | Au (g/t) | Pb (%) | Zn (%) | Ag (g/t) | Tonnes | Au (Eq g/t) | Au (g/t) | Pb (%) | Zn (%) | Ag (g/t) |
| 100 | 100,443 | 4.28 | 2.51 | 1.73 | 1.39 | 23.1 | 14,025 | 5.21 | 4.58 | 0.06 | 0.04 | 9.1 | 114,469 | 4.39 | 2.77 | 0.16 | 0.13 | 21.4 |
| 200 | 21,807 | 2.75 | 2.19 | 0.47 | 0.47 | 8.4 | 1,422 | 3.12 | 2.48 | 0.05 | 0.06 | 8.1 | 23,229 | 2.77 | 2.21 | 0.05 | 0.05 | 8.4 |
| 300 | 40,503 | 2.41 | 1.06 | 1.17 | 1.14 | 20.6 | 26,039 | 2.33 | 1.08 | 0.11 | 0.10 | 18.8 | 66,542 | 2.38 | 1.07 | 0.11 | 0.11 | 19.9 |
| 400 | | | | | | | 5,088 | 1.37 | 0.08 | 0.13 | 0.08 | 23.0 | 5,088 | 1.37 | 0.08 | 0.13 | 0.08 | 23.0 |
| Total | 162,754 | 3.61 | 2.11 | 1.42 | 1.20 | 20.5 | 46,574 | 3.12 | 2.07 | 0.98 | 0.81 | 16.0 | 209,328 | 3.50 | 2.10 | 1.32 | 1.12 | 19.5 |

Figure 2 shows gold grade versus contained tonnages for the various gold cut-off grades for all lodes (grade tonnage curve).

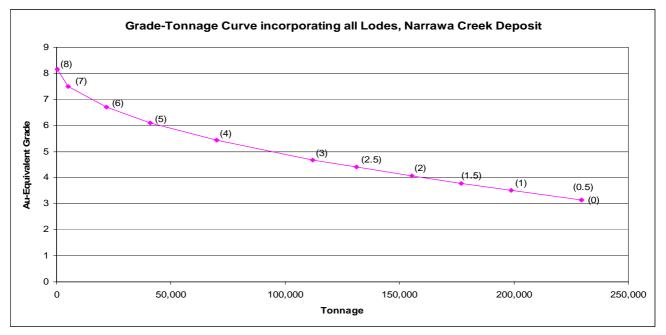
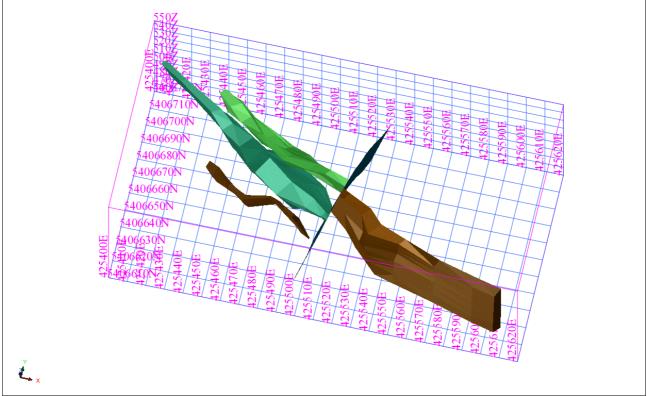
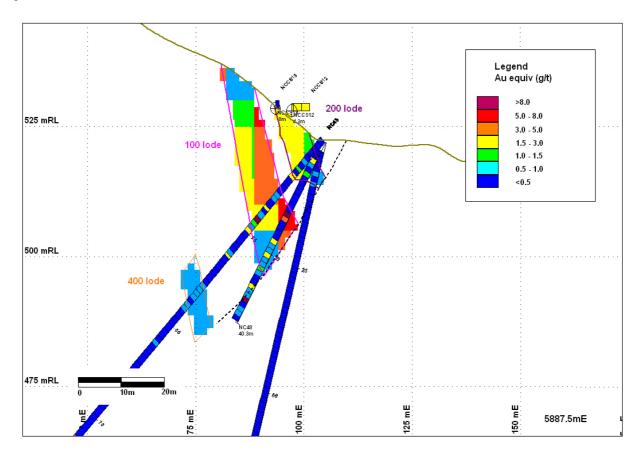
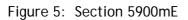


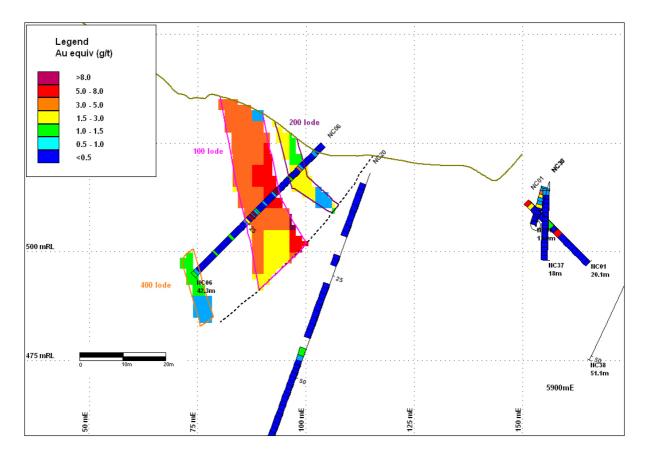
Figure 3: Mineralised lodes at the Narrawa Deposit, separated by the NC05 fault (NNE trending blue plane).



Cross sections that follow as Figures 4 - 10, show the downhole gold equivalent assays superimposed on colour coded block model slices from the block.







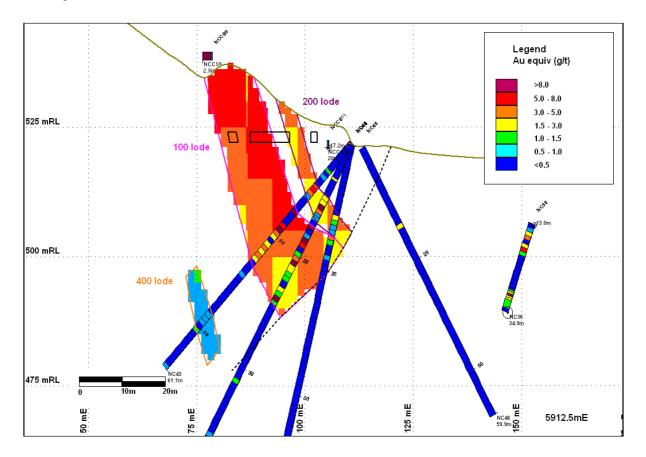
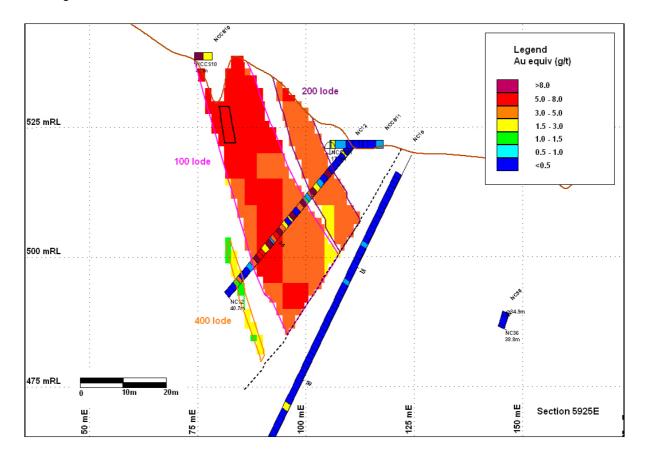


Figure 7: Section 5925mE



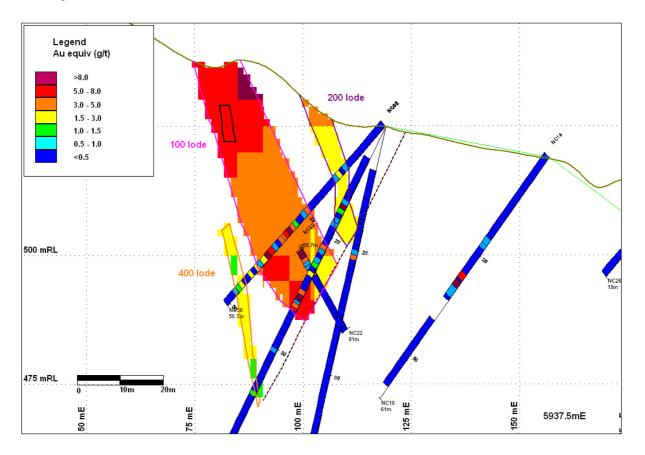
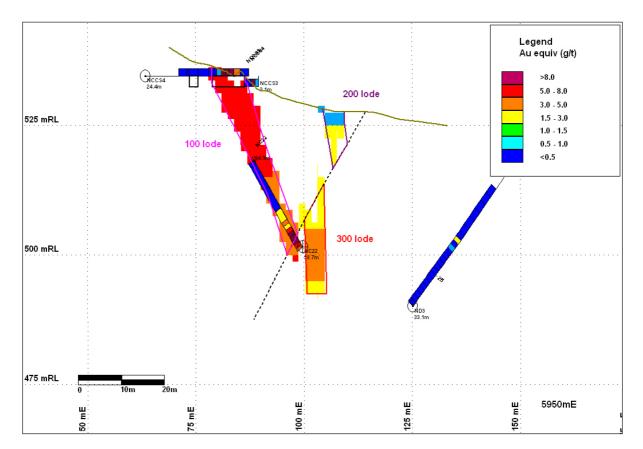
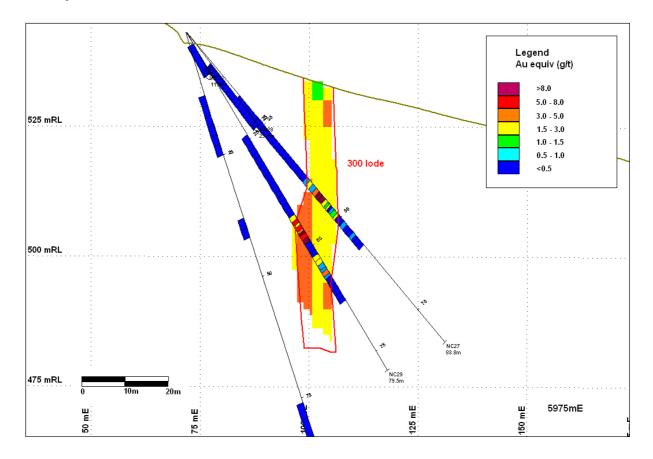


Figure 9: Section 5950mE





Geological Model

The Narrawa Deposit is an intrusion-related gold-lead-zinc-silver skarn complex comprising a mixture of stratabound and fault/vein related lodes on the western limb of an anticline shallowly plunging to the north-west.

The deposit comprises two main lodes (100 & 200) trending 120°, truncated from lode 300 by an interpreted north-east striking, south-east dipping late brittle fault intersected by NC05. The two main lodes dip steeply towards the north-east at -65 to -70°, and are terminated at depth by the NW-SE trending, SW moderate dipping brittle HGM Fault.

The 300 lode exhibits a swing in strike from 120° to 105°, with a steep sub-vertical dip towards the north-north-east twisting to the south-south-west towards the ESE. The 400 lode comprises a minor zone of mineralisation parallel to the 100 and 200 lodes. The lodes extend over a distance of 220m along-strike, with a maximum down-dip extent of 60m.

The following sections of text relating to Statistics, Variography, Block Model, Recommendations, the Summary Assessment table and the Previous Resources sections are variably modified from F.Muller (2009) - Geostat Services Report.

Four wireframes were delineated from sectional outlines to represent all mineralisation in the Narrawa Deposit. A combination of assays, lithology and structural interpretations from drill core were used to define these wireframe envelopes, with a cut-off of approximately 0.5 g/t gold-equivalent to separate mineralisation from waste within the broad skarn complex lithology.

The wireframed lodes extend over a distance of 220m along-strike, with a maximum width of approximately 20m and a down-dip extent of 60m.

Statistics

Log histograms and probability plots of all elements exhibit mixing of populations, likely caused by the presence of both stratabound and fault/vein related mineralisation.

Top-cuts were applied to all elements within lodes in order to constrain extreme values and reduce their impact on estimated grades. Upper inflexion points in probability distribution plots and a high coefficient of variation were used as a guide to determining top-cuts for these wireframes.

Mineralisation was extrapolated halfway between associated drillholes on strike and down dip or 12.5m if unconstrained.

Variography

Variography analysis using traditional and lognormal variograms was completed on combined composites to supply variogram parameters for grade interpolation.

A strike of 120° was interpreted for all elements, with a dip of -65° to -70° towards 030°. No plunge was detected, with minor directions of mineralisation continuity attributed to structural features associated with mineralisation.

Low to moderate nugget effects are inherent, ranging from 10% to 37% of the total variability, indicating good reproducibility of sampling methods.

Maximum spatial continuity ranges indicate a range of continuity of up to 32m along-strike and 26m down-dip. Downhole variograms are well-structured, and indicate a downhole lode width of up to 9m. Quality of down-dip variograms are poor, and illustrate the need for some infill drilling in this direction.

Block model

A block model of parent cell size 5m (N) x 10m (E) x 5m (RL) subcelled to 1.25m x 2.5m x 1.25m was constructed for the Narrawa Deposit. Grades were estimated using ordinary kriging interpolation for all lodes. A minimum of 3 composites and a maximum of 20 composites were used in interpolation of grades into blocks. Search ellipses for initial interpolation of grades comprised 30m x 22m x 10m. A second subsequent interpolation pass was employed with expanded search ellipses in order to fill blocks in areas of sparse drill density within the lodes.

A mineral resource was estimated for the Narrawa Deposit, using a 0.5g/t gold cut-off grade, to total 23,550 ounces of gold equivalent grading 3.5 g/t gold equivalent, within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc. This consists of 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc.

An Indicated Resource was estimated for the first time and it contains 162,755 tonnes grading 3.61 g/t gold equivalent (2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc).

Classification of the resource involved several criteria, including drillhole spacing, sampling density, sampling locations, kriging variance, lode geometry and confidence in grade continuity. Lodes were classified as Indicated and Inferred on the basis of the above criteria. A density of 2.96t/m³ was used to estimate resource block tonnage for all lodes.

Recommendations

Infill drilling was recommended on existing sections to populate the uninformed area in the upper section of the lodes, and provide more composites for interpolation. This would improve the down-dip variography and enable a possible upgrade of the resource to Measured status.

A formal survey of the drill collars and current Higgs pit plus all underground workings.

Additional specific gravity values be obtained with the planned infill drilling to provide coverage of the upper portion of the lodes.

A summary assessment of the Narrawa Resource is provided in Table 2 below.

| CRITERIA | COMMENTS |
|---|--|
| | niques and Data |
| Drilling | Diamond drillholes NC01-NC017 by Jervois using NQ core. Diamond drillholes NC018-NC053 by Frontier using NQ & HQ core. Channel holes NCSS01-NCSS13 along cross-cuts by Goldfields. |
| Data spacing and distribution | A total of 53 diamond holes drilled on an approximate 12.5m grid along-strike, with fan drilling on oblique cross-sections. Channel holes sampled along cross-cuts perpendicular to lodes. 1,981 samples in total, with samples collected at ~1m intervals. |
| Logging | Systematic logging describing the drillhole lithology, veining and structure. |
| Sampling and Sample Preparations | All Frontier diamond core was cut and half-core submitted for analysis. Samples were oven-dried and crushed, with the entire sample being fine pulverised to ensure a representative split. Base metal analysis was via AAS with gold determined by fire assay from a 50g charge at Burnie Research Laboratories. |
| Quality of Sampling and Assaying | QAQC was adequate and was assessed via submission of known standards approximately every 20 to 25 samples / metres downhole. Laboratory quality control reported very good repeatability for in-house standards, as well as for duplicate drill core analysis. |
| Location of Data Points | Collar positions surveyed by tape and compass covering all holes between NC05 and NC08 on SW side of Narrawa Creek to within ± 0.5m accuracy. Drillholes along access track (between NC22 and NC34) are to within ± 2m accuracy. Collars on NW side of creek re-adjusted to tape and compass survey data from 2005. These holes require re-surveying. NC18 collar location placed from spatial relationships to tape and compass surveyed locations of other holes. Other holes were transposed onto a digital terrain model constructed from 1:25000 digital contours (subcelled to 0.25m), incorporating known survey points and other georeferenced landmarks. Downhole surveys conducted by Eastman camera. |
| Geological Kno | |
| Geology | Quite good understanding of the deposit and structural controls on mineralisation. Interpreted as an intrusion-related gold-lead-zinc-silver complex with the main mineralised area striking broadly NW-SE. Lodes terminated at depth and to the SE by late brittle faults, delineated in drill core. |
| Estimation and | Reporting of Mineral Resources |
| Database Integrity | Reasonable database quality. A few missing silver assays from lost drill core in NC20. |
| Geological interpretation | Structural interpretations based on long core axis bedding, vein and fault orientations from diamond core, orientated diamond core and outcrops. 2D sectional mineralisation envelopes generated using interpreted stratabound & structural controls and an approximate 0.5g/t gold equivalent cut-off. 3D wireframes created by linking these 2D sectional envelopes for use in the resource model. |
| Estimation and modelling techniques | Ordinary kriging used for interpolation of lead, zinc, silver and gold grades into 5m x 10m x 5m parent blocks subcelled to 1.25m x 2.5m x 1.25m. Grade capping utilised for all elements. Hard boundaries employed between lodes. Search dimensions based on variography ranges. Model validated globally and locally, and compared to previous resource estimates. |
| Bulk Density | Average density of 2.96t/m ³ used from 160 SG determinations within the lodes. SG values determined by wax-encapsulation method. |
| Classification | Classification on basis of drill data density, kriging variance, geological controls and confidence in mineralisation continuity. Kriging variance used as a guide to differentiate Indicated and Inferred resources, with specific areas downgraded to Inferred on the basis of the above criteria. |

| | | DIAMO | ND DRILLH | HOLES | | |
|---------|----------------|-----------------|-----------|----------------------|------------------|--------------|
| Hole ID | Easting (m) | Northing (m) | RL (m) | Azimuth (degrees) | Dip (degrees) | Depth (m) |
| NC01 | 425496.9 | 5406724.8 | 512.0 | 33 | -45 | 20.1 |
| NC06 | 425471.3 | 5406685.5 | 524.0 | 213 | -45 | 42.3 |
| NC07 | 425451.1 | 5406698.9 | 525.0 | 213 | -45 | 27.8 |
| NC08 | 425434.2 | 5406709.5 | 526.0 | 213 | -45 | 21.3 |
| NC12 | 425491.9 | 5406679.9 | 521.0 | 213 | -45 | 40.7 |
| NC18 | 425521.6 | 5406681.0 | 519.0 | 213 | -50 | 61 |
| NC19 | 425499.2 | 5406693.9 | 517.0 | 213 | -60 | 71 |
| NC20 | 425476.9 | 5406694.2 | 518.0 | 213 | -70 | 81.5 |
| NC22 | 425514.0 | 5406619.0 | 543.0 | 345 | -45 | 81 |
| NC23 | 425620.0 | 5406655.0 | 534.0 | 215 | -45 | 111 |
| NC27 | 425514.0 | 5406619.0 | 543.0 | 35 | -45 | 83.8 |
| NC28 | 425514.0 | 5406619.0 | 543.0 | 55 | -45 | 82.5 |
| NC29 | 425514.0 | 5406618.9 | 543.0 | 35 | -54.5 | 79.5 |
| NC32 | 425538.0 | 5406615.0 | 545.0 | 35 | -55 | 54 |
| NC34 | 425573.0 | 5406633.0 | 536.0 | 215 | -70 | 57.1 |
| NC36 | 425496.0 | 5406731.0 | 516.0 | 142 | -50 | 38.8 |
| NC37 | 425495.9 | 5406731.2 | 516.0 | 142 | -85 | 18 |
| NC43 | 425483.2 | 5406685.9 | 521.3 | 213 | -45 | 61.1 |
| NC44 | 425483.2 | 5406685.9 | 521.3 | 213 | -60 | 66.6 |
| NC45 | 425483.2 | 5406685.9 | 521.3 | 213 | -75 | 81.1 |
| NC46 | 425484.6 | 5406688.0 | 521.3 | 33 | -60 | 59.9 |
| NC47 | 425460.5 | 5406693.0 | 521.9 | 213 | -45 | 100.6 |
| NC48 | 425460.6 | 5406693.1 | 521.9 | 213 | -60 | 40.3 |
| NC49 | 425460.6 | 5406693.2 | 521.9 | 213 | -75 | 75.1 |
| NC50 | 425509.9 | 5406677.8 | 525.0 | 213 | -45 | 49.0 |
| NC51 | 425509.9 | 5406677.8 | 525.0 | 213 | -60 | 71.9 |
| NC52 | 425509.9 | 5406677.8 | 525.0 | 213 | -75 | 82.7 |
| | | CHANNE | L SAMPLE | HOLES | 1 | |
| NCCS2 | 425507.8 | 5406635.9 | 535.0 | - | - | 5 |
| NCCS3 | 425496.8 | 5406647.4 | 533.0 | - | - | 3.1 |
| NCCS4 | 425501.8 | 5406644.4 | 533.5 | - | - | 31.3 |
| NCCS9 | 425466.4 | 5406657.8 | 538.0 | - | - | 2.3 |
| NCCS10 | 425471.7 | 5406654.0 | 538.0 | - | - | 4.1 |
| NCCS12 | 425453.0 | 5406693.5 | 528.0 | - | - | 8 |
| NCCS13 | 425447.9 | 5406688.4 | 526.0 | - | - | 20 |

Previous Resource Estimations

Historically, the deposit was also drilled by previous owners, Jervois and TasGold (Frontier prior to name change). Jervois compiled a primitive resource estimate, based on weighted average grades from two diamond drillholes. The TasGold resource estimate was calculated on a sectional basis, with a total of 16 diamond drillholes, using MapInfo and Discover (which uses a two-dimensional inverse distance weighted interpolator to produce a grid of interpolated values within the boundary defined for the resource).

An Inferred Resource was estimated by Geostat Services in March 2008, based on an inversedistanced squared model and utilising 3D wireframes. Density values were calculated for samples within each lode and averaged to provide an overall mean density of 2.96 t/m³ for the resource.

Previous resources released by former owners and Frontier are tabulated below in Table 4. These estimates relied on an assumed density of 2.8 in the absence of bulk dry density information.

| | Tuble 1 Trevious Resource Estimates for the Narrawa Deposit | | | | | | | | |
|-------|---|---------|------|------|--------|--------|-----------------------------|--|--|
| Autho | or/Model | | Gold | Lead | | Silver | Method | | |
| [| Date | Tonnes | g/t | % | Zinc % | g/t | | | |
| McKer | nna Model | | | | | | | | |
| (2 | 2003) | 215,000 | 3.50 | 1.50 | 1.30 | 23 | Weight average of NC6 & 12 | | |
| TasGo | old Model | | | | | | | | |
| (2 | 2005) | 205,000 | 2.70 | 1.38 | 1.07 | 41 | 2D sectional resource | | |
| Geost | tat Model | | | | | | | | |
| (2 | 2008) | 190,100 | 2.74 | 1.59 | 1.21 | 22 | 3D ID ² resource | | |

Table 4Previous Resource Estimates for the Narrawa Deposit

See the ASX releases dated 27/7/09, 29/1/09, 19/11/08, 1/10/08, 5/9/08 and 19/8/08 and the Conceptual Mining Study dated 27/10/2008 for further information on the Narrawa Deposit.

Stormont Gold - Bismuth Deposit (RL 3/2005)

Mineral exploration and resource estimation Consultant Mr. G. MacDonald was commissioned by Frontier Resources Ltd (Frontier) to undertake a geostatistical resource estimate of the Stormont Deposit, using all available drilling assays and the improved understanding of the deposit geology.

Resource Estimation

Mineralisation An Inferred Resource was estimated geostatistically for the Stormont high grade zone, using SURPAC resource estimation software. The tonnes and grade of gold, bismuth and silver at various gold cutoff grades are shown in Table 5.

| Table 5. Inferred Mineral Resource Summary Showing Grade Estimates at Various Gold Cut-off Grades, using Ordinary Kriging | | | | | | | | |
|---|--------|---------|------|------|------|--|--|--|
| Cut-off Gold Grade (g/t)Contained Gold (ounces)TonnesGold (g/t)Bismuth (%)Silver (g/t) | | | | | | | | |
| 0.5 | 14,585 | 124,300 | 3.65 | 0.26 | 3.35 | | | |
| 1 | 14,250 | 112,500 | 3.94 | 0.27 | 3.41 | | | |
| 1.5 | 13,430 | 91,400 | 4.57 | 0.30 | 3.52 | | | |
| 2 | 12,525 | 75,500 | 5.16 | 0.32 | 3.32 | | | |
| 2.5 | 11,625 | 63,200 | 5.72 | 0.34 | 3.38 | | | |
| 3 | 10,880 | 54,400 | 6.22 | 0.35 | 3.39 | | | |
| 3.5 | 10,500 | 50,800 | 6.43 | 0.36 | 3.34 | | | |

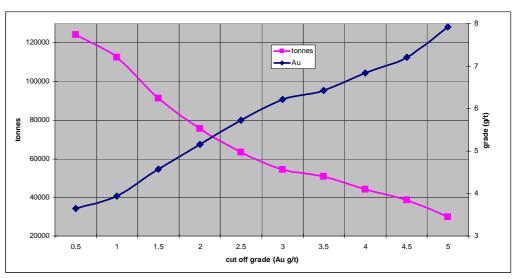
Figure 11 shows gold grade versus contained tonnages for the various gold cut-off grades.

The high grade gold zone in the estimate has been modelled as a stratiform body approximately 150m long and up to 30m wide (on the surface as its widest point).

Geological Model

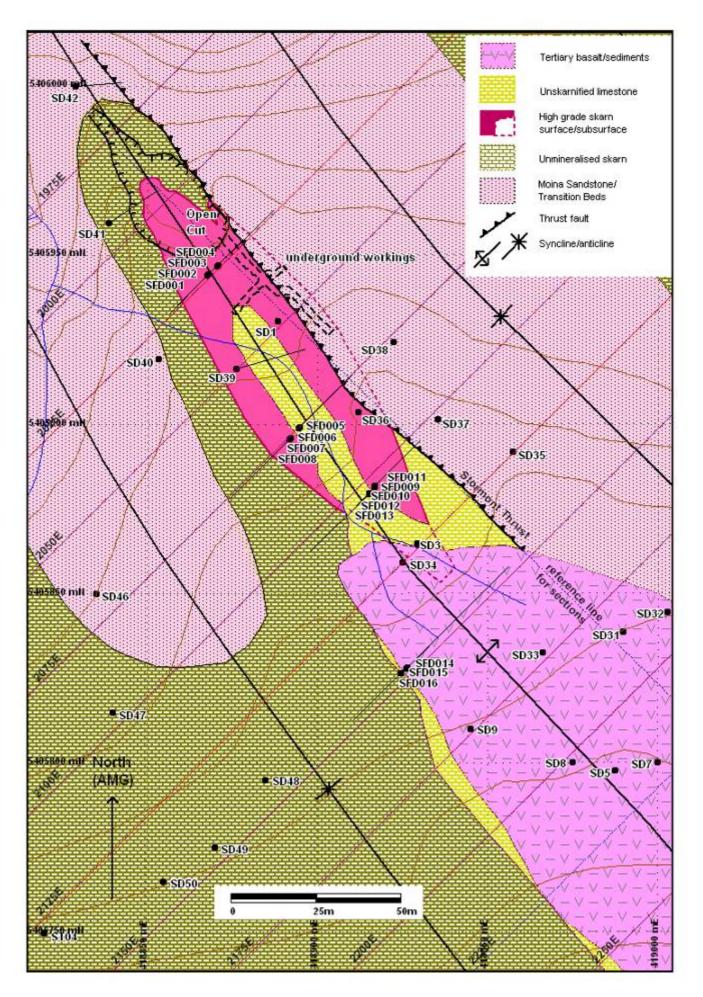
The high grade gold + bismuth resource at Stormont is a skarn-style stratiform deposit located on or very near surface and hosted near the base of the Ordovician Gordon Group Limestone.

The deposit ranges stratigraphic in thickness between 10m and 15m (lying 8m to 15m above the base of the limestone) and is located in the core and on the limbs of shallowly а southeasterly syncline, plunging at its northwesternmost end.



The resource crops out for the most part with only the central-most part of the southern half and the southernmost-end of the resource covered by a thin layer of unaltered limestone and Tertiary cover.

| | Tabl | e 6. Drillhol | | el Sample W | eighted Assa | y Averages, Lo | ocation and O | rientation | Information | ı | |
|------------------|--|---------------|-------------|---------------|----------------------|----------------|-----------------|------------|----------------------|------------------|--------------|
| Hole ID | From (m) | To (m) | Length | Gold (g/t) | Bismuth (%) | Easting (m) | Northing (m) | RL (m) | Azimuth (Degrees) | Dip (Degrees) | Depth (m) |
| | Central High Grade Zone 'drillholes' used in the resource estimate | | | | | | | | | | |
| SD1 | 4.5 | 17.5 | 13 | 4.12 | 0.46 | 418888.2 | 5405930.4 | 628.7 | 279 | -90 | 145.0 |
| SD3 | 16.9 | 19 | 2.1 | 12.8 | 0.35 | 418929.3 | 5405864.8 | 638.7 | 253 | -90 | 75.1 |
| SD36 | 0 | 2.2 | 2.2 | 4.19 | 0.05 | 418911.9 | 5405903.6 | 646.0 | 0 | -90 | 58.0 |
| | 14.2 | 19.7 | 5.5 | 4.34 | 0.11 | | | | - | | |
| SD39 | 0 | 19.6 | 19.6 | 2.95 | 0.09 | 418876.1 | 5405916.5 | 639.9 | 74 | -70 | 61.5 |
| SFD001 | 10.6 | 11.5 | 0.9 | 18.5 | 0.43 | 418867.7 | 5405949.9 | 628.0 | 225 | -65 | 38.6 |
| SFD002 | 5 | 10 | 5 | 3.04 | 0.75 | 418867.7 | 5405949.9 | 628.0 | 225 | -45 | 18.0 |
| SFD002 | 8.5 | 10.5 | 2 | 1.33 | 0.45 | 418869.7 | 5405952.4 | 628.0 | 45 | -60 | 33.6 |
| SFD003 | 7 | 12 | 5 | 6.9 | 0.43 | 418869.8 | 5405952.5 | 628.0 | 45 | -45 | 38.6 |
| SFD004 SFD005 | , 7.9 | 28 | 20.1 | 5.68 | 0.23 | 418890.9 | 5405903.4 | 633.0 | 45 | -45 | 31.0 |
| SFD005 SFD006 | 1.8 | 19.3 | 17.5 | 1.3 | 0.23 | 418890.9 | 5405903.4 | 633.0 | 43 | -40 | 33.3 |
| SFD007 | 0 | 7.5 | 7.5 | 2.29 | 0.08 | 418890.9 | 5405903.4 | 633.0 | 225 | -45 | 36.0 |
| SFD007 SFD008 | 0 | 9 | 9 | 1.66 | 0.10 | 418890.9 | 5405903.4 | 633.0 | 225 | -45 | 22.6 |
| SFD008 | 3.1 | 11 | 7.9 | 11.04 | 1.38 | 418907.1 | 5405703.4 | 637.0 | 45 | -45 | 22.0 |
| SFD010 | 2.7 | 5 | 2.3 | 2.16 | 0.03 | 418907.1 | 5405883.6 | 637.0 | 45 | -43 | 47.3 |
| SFD010 SFD011 | 2.7 | 5 17 | 2.3 14.6 | 3.53 | 0.03 | 418907.1 | 5405883.6 | 637.0 | 45 45 | -90 -65 | 47.3 |
| | | | 2 | | | | | | | | |
| SFD013 | 7.2 | 9.2 | | 1.53 | 0.04 | 418907.1 | 5405883.6 | 637.0 | 225 | -65 | 30.1 |
| FRSTC01 | 4 | 10 | 6 | 1.27 | 0.37 | - | - | - | - | - | - |
| FRSTC02 | 0 | 2.5 | 2.5 | 0.97 | 0.33 | - | - | - | - | - | - |
| FRSTC03 | 0 | 8 | 8 | 3.13 | 0.2 | - | - | - | - | - | - |
| FRSTC04 | 0 | 1.3 | 1.3 | 26.7 | 0.55 | - | - | - | - | - | - |
| GFSTC01 | 0 | 19 | 19 | 10 | 0.77 | - | - | - | - | - | - |
| GFSTC02 | 0 | 2 | 2 | 5.79 | 0.35 | - | - | - | - | - | - |
| GFSTC03 | 0 | 24 | 24 | 10.1 | 0.52 | - | - | - | - | - | - |
| GFSTC04 | 0 | 10.5 | 10.5 | 5.41 | 0.3 | - | - | - | - | - | - |
| GFSTC05 | 0 | 7 | 7 | 26.5 | 0.53 | - | - | - | - | - | - |
| GFSTC06 | 0 | 1.2 | 1.2 | 36.53 | 1.1 | - | - | - | - | - | - |
| GFSTC07 | 0 | 1.2 | 1.2 | 36.47 | 0.53 | - | - | - | - | - | - |
| GFSTC08 | 0 | 1.2 | 1.2 | 12.46 | 0.5 | - | - | - | - | - | - |
| GFSTC09 | 0 | 1.2 | 1.2 | 6.29 | 0.24 | - | - | - | - | - | - |
| GFSTC10 | 0 | 1.2 | 1.2 | 11.2 | 0.47 | - | - | - | - | - | - |
| GFSTC11 | 0 | 1.2 | 1.2 | 8.48 | 0.25 | - | - | - | - | - | - |
| GFSTC12 | 0 | 1.2 | 1.2 | 3.78 | 0.13 | - | - | - | - | - | - |
| GFSTC13 | 0 | 1.2 | 1.2 | 3.44 | 0.07 | - | - | - | - | - | - |
| GFSTC15 | 4 | 34 | 30 | 5.08 | 0.57 | - | - | - | - | - | - |
| | | | | | rsections <u>not</u> | used in the r | esource estim | ate | | | |
| SD8 | 28.1 | 29.4 | 1.3 | 2.99 | 0.02 | 418975.0 | 5405800.0 | 649.0 | 0 | -90 | 55.0 |
| SD10 | 18.6 | 23 | 4.4 | 12.7 | 0.11 | 419025.0 | 5405800.0 | 650.0 | 0 | -90 | 47.5 |
| SD33 | 27.5 | 29 | 1.5 | 9 | 0.17 | 418966.2 | 5405832.5 | 659.4 | 0 | -90 | 68.0 |
| SD44 | 13.5 | 21.5 | 8 | 1.81 | 0.06 | 419060.0 | 5405773.0 | 665.0 | 0 | -90 | 50.0 |
| | | | Western | zone interse | ection <u>not</u> us | ed in the reso | ource estimate | 9 | | | |
| ST04 | 20.5 | 22.5 | 2 | 3.5 | 0.21 | 418820.0 | 5405750.0 | 657.0 | 0 | -90 | 39.1 |



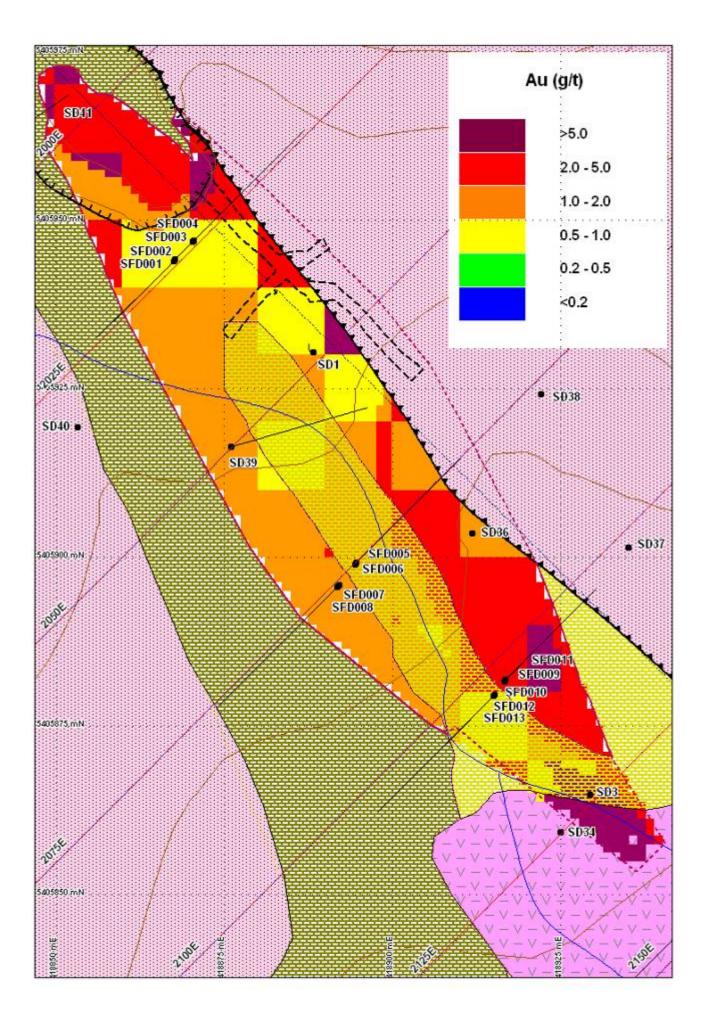


Figure 13. Geology of Stormont gold + bismuth high grade resource (geology legend as figure 12)

Figure 14. Section 1975E looking to 325 degrees AMG (legend as per figures 3 and 4)

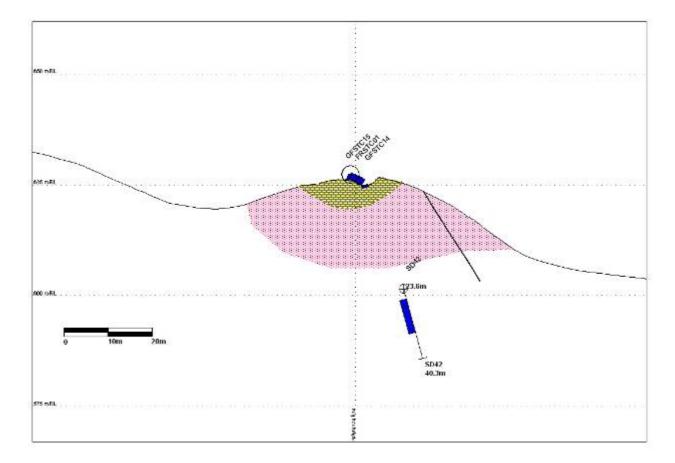
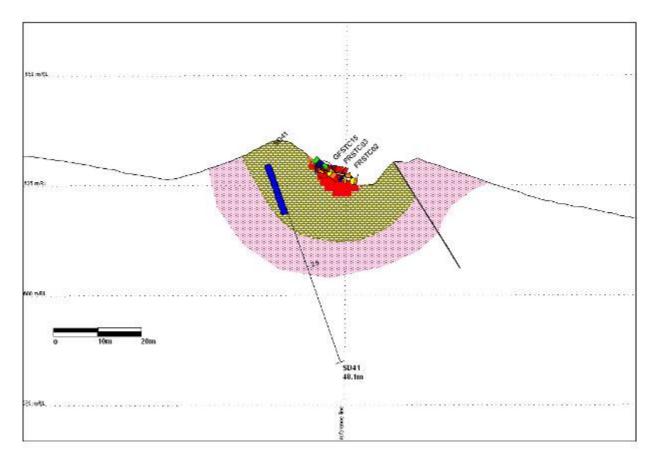


Figure 15. Section 2000E looking to 325 degrees AMG (legend as per figures 3 and 4)



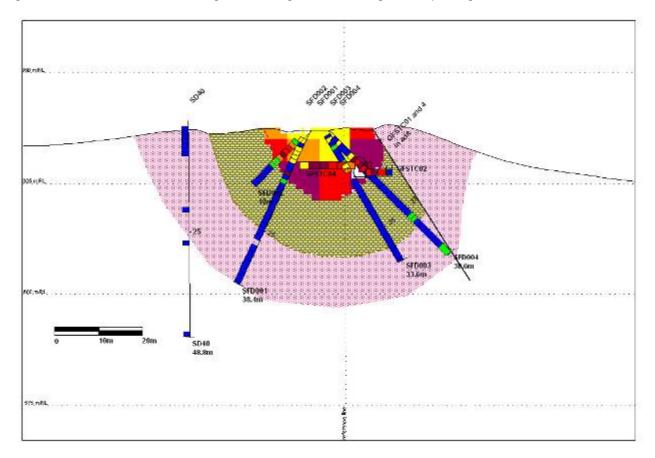
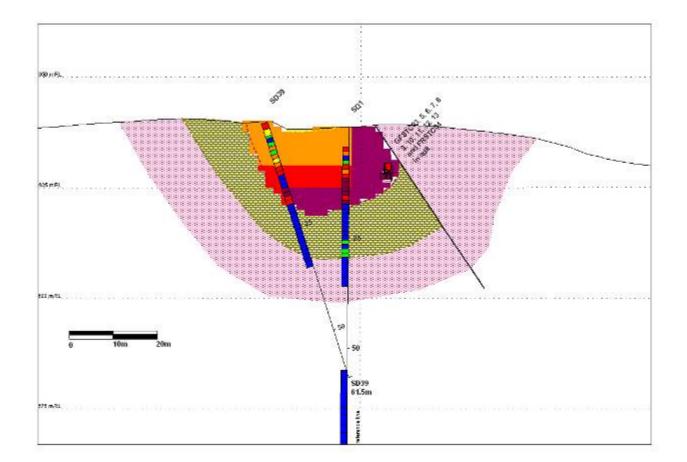


Figure 16. Section 2025E looking to 325 degrees AMG (legend as per figures 3 and 4)

Figure 17. Section 2050E looking to 325 degrees AMG (legend as per figures 3 and 4)



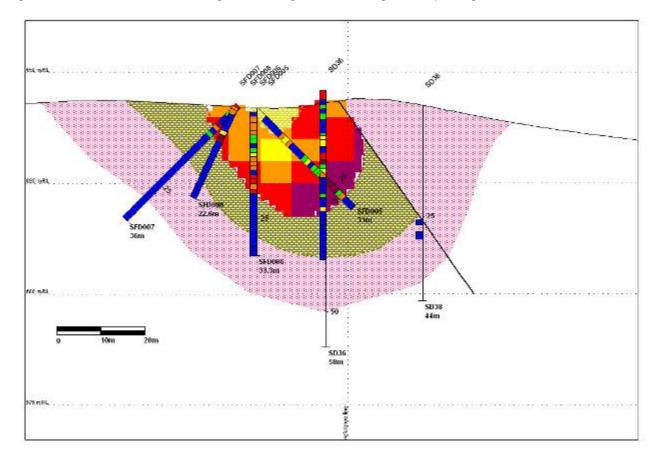
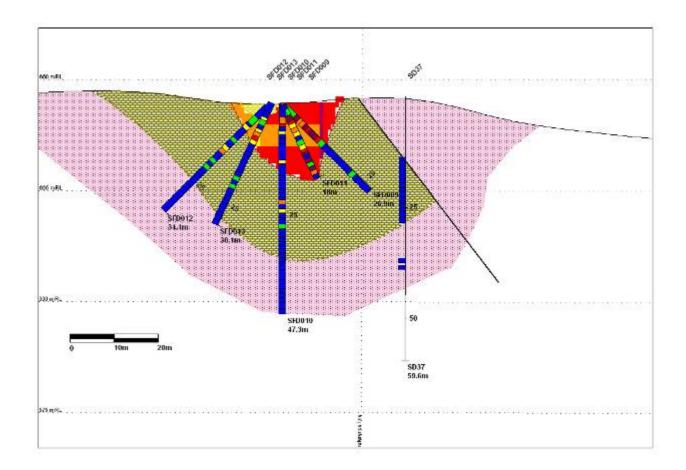
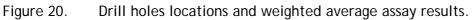
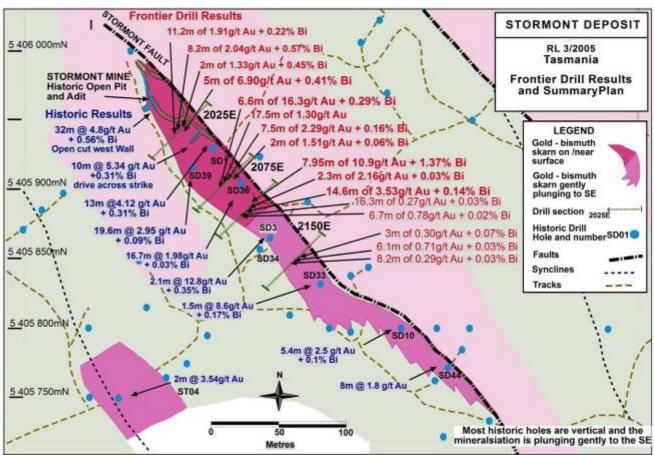


Figure 18. Section 2075E looking to 325 degrees AMG (legend as per figures 3 and 4)

Figure 19. Section 2100E looking to 325 degrees AMG (legend as per figures 3 and 4)







A section of the northeastern edge of the high grade zone has been faulted off by the Stormont Thrust Fault (with subsequent erosion removing mineralised skarn from the up-faulted northeastern block). The southeastern end of the high grade zone is the only gradational boundary and is defined by high grade mineralisation becoming less continuous.

Geostatistics

There is a significant discrepancy with the gold assays of Frontier's supplied certified gold standard (Geostat G905-6). The certified value for the standard by fire assay is 5.96 g/t gold (standard deviation 0.26) yet 26 assays of the standard by the assay laboratory consistently assayed 10.5% below this, averaging 5.34 g/t with a standard deviation of 0.02.

There is a strong possibility that all such drill core and channel sample assays may be under called by 10.5% in which case the gold grade of the resource would be elevated by the order of 7% to 9%. This will be further evaluated.

There is a reasonable correlation between gold and bismuth in the high grade zone (correlation coefficient of 0.39). The resource is seen primarily as a gold deposit, with bismuth and silver credits. High grade outlier assays in the drilling and trenching of gold, bismuth and silver have been top cut. Variography, using a correlogram on 1m composites, showed similar ranges for each of gold, bismuth and silver. The variogram model shows a low nugget effect of 25%, a strike of 135° in the z plane, 0° in the x plane and 0° in the y plane, with a short range structure with a range of 28m and an overall range of 55m.

Block model

A block with parent cell size 10m (North) x 10m (East) x 5m (RL) with sub-blocks of $1.25m \times 1.25m \times 1.25m$ was constructed. Grades were estimated into blocks using ordinary kriging. Three passes were used with a minimum of 12 samples and maximum of 30 samples in each pass. The first pass had a search ellipse of 30m x 8m x 8m, the second 60m x 16m x 16m and the third 120m x 32m x 32m.

An overall average bulk density of 2.9 g/cm3 was calculated from 84 mineralised samples measured by the water immersion method and used in determining tonnages.

See the ASX releases dated 27/7/09, 26/11/2008, 22/11/2008 and 2/10/2008, plus the Quarterly Reports dated 30/1/2009 and 31/10/2008 and the Conceptual Mining Study dated 27/10/2008 for further information on the Stormont Deposit.

CORPORATE

Exploration Licenses 1345 - Andewa and 1351 - Likuruanga in Papua New Guinea were renewed until 12/8/10 (2 year renewable term system).

The sale of EL 1596 -Jimi to Harmony Gold for \$300,000 is proceeding as anticipated and is now awaiting the approval of the PNG Mining Minister.

Please refer to the following ASX announcements released during the July 2009 quarter for additional detailed information relating to the Company and its projects, visit our website at <u>www.frontierresources.com.au</u> and/or feel free to contact me.

- 29th July 2009 Inferred Resource At The Stormont Deposit (Tasmania) Estimated To Contain 13,430 Ounces Of Gold Grading 4.57 Grams/Tonne, Plus 27.7 Tonnes Of Bismuth, Plus 10,340 Ounces Of Silver
- 27th July 2009 Indicated and Inferred Resource (Gold And Base Metals) Estimated For The Narrawa Deposit, Tasmania
- 8th June 2009 Exploration License in Papua New Guinea Sold for A\$300,000 (Subject to Regulatory and Other Approvals)

30th April Quarterly Report

FRONTIER RESOURCES LTD

fito mom

P.A.McNeil, M.Sc. 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 his information in the form and context in which it appears.

About Frontier Resources

- Frontier is focused on exploring for and developing mineral deposits in the highly mineralised Pacific 'Rim of Fire' in Papua New Guinea and the highly prospective Dolcoath Granite and Mt Read Volcanics of Tasmania.
- Frontier has a 100% interest in 5 Exploration Licences covering approx. 1,987 km² in PNG (EL 1596 is currently being sold for A\$300,000 cash) and 1 Exploration Licence + 2 Retention Licences covering 18 km² in Tasmania.
- The portfolio offers excellent mineral deposit potential, with primary targets being World Class gold/silver epithermal, gold- base metal skarn, copper-gold-molybdenum porphyry and polymetallic VMS (zinc-lead-silver-gold) deposits.
- The projects <u>all</u> have high-grade exploration results in rock, trenches and/or drill hole and are in the same or similar geological terranes as existing World Class and/or major mines.
- Frontier's Directors have more than 150 years combined experience in PNG and Australia to serve the interests of the Company and its shareholders.
- Frontier operates with a general policy of 'DRILLING' our quality projects using our purpose built and self manufactured, cost effective, environmentally friendly, man-portable diamond core rig.
- The Company is an ASX listed junior mineral explorer whose shares also trade on the Frankfurt, Berlin and Munich Stock Exchanges.

Notes:

- The gold equivalent formula used to calculate the gold equivalent values is as follows: gold Equivalent (g/t) = gold g/t + (lead% x 0.46269) + (zinc% x 0.4644) + (silver g/t x 0.01386)
- This formula is based on metal prices obtained on 7th April 2009, these being US\$884/oz gold, US\$0.5965/lb lead, US\$0.5987/lb zinc and US\$12.26/oz silver.
- Skarn gold- silver -basemetal deposits such as the Narrawa Deposit typically recover contained gold, silver and basemetals if in sufficient quantities (subject to metallurgical characteristics and prevailing metal prices).
- The ASX requires metallurgical recovery be specified for each metal and they are: 96.7% for gold, 98.5% for zinc, 95.6% for lead and 92.4% for silver.
- It is the Company's opinion that each of the elements included in the Narrawa metal equivalent calculations have a reasonable potential to be recovered if the project proceeds to mining.

Appendix 5B

Rule 5.3

Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

FRONTIER RESOURCES LIMITED

ACN

095 684 389

| Quarter ended ("current quarter") | |
|-----------------------------------|--|
| lune 2009 | |

Year to date

12 Months

Current quarter

\$A'000

Consolidated statement of cash flows

Cash flows related to operating activities

| Cash I | lows related to operating activities | \$A'000 | \$A'000 |
|--------|---|---------|---------|
| 1.1 | Receipts from product sales and related debtors | 10 | 1,070 |
| 1.2 | Payments for (a) exploration and evaluation (b) development | (154) | (1,508) |
| | (c) production | (52) | (552) |
| 1.3 | (d) administration Dividends received | (52) | (552) |
| 1.4 | Interest and other items of a similar nature received | 2 | 11 |
| 1.5 | Interest and other costs of finance paid | | |
| 1.6 | Income taxes paid | | |
| 1.7 | Other Expenditure reimbursable by others | | |
| | | | |
| | Net Operating Cash Flows | (194) | (979) |
| | Cash flows related to investing activities | | |
| 1.8 | Payment for purchases of: | | |
| | (a)prospects (b)equity investments | | |
| | (c) other fixed assets | | (113) |
| 1.9 | Proceeds from sale of: | | |
| | (a)prospects | | |
| | (b)equity investments (c)other fixed assets | | 651 |
| 1.10 | Loans to other entities | | 031 |
| 1.10 | Loans repaid by other entities | | |
| 1.12 | Other (provide details if material) | | |
| | Net investing cash flows | | 538 |
| 1.13 | Total operating and investing cash flows (carried forward) | (194) | (441) |

⁺ See chapter 19 for defined terms.

| 1.13 | Total operating and investing cash flows (brought forward) | (194) | (441) |
|--|--|-------|-------|
| 1.14 1.15 1.16 1.17 1.18 1.19 | Cash flows related to financing activities Proceeds from issues of shares, options, etc. net of costs Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings Dividends paid Other (provide details if material) | | 103 |
| | Net financing cash flows | | 103 |
| | Net increase (decrease) in cash held | (194) | (338) |
| 1.20 | Cash at beginning of quarter/year to date | 384 | 528 |
| 1.21 1.22 | Exchange rate adjustments to item 1.20 Cash at end of quarter | 190 | 190 |

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

| | | Current quarter \$A'000 |
|------|--|----------------------------|
| 1.23 | Aggregate amount of payments to the parties included in item 1.2 | |
| 1.24 | Aggregate amount of loans to the parties included in item 1.10 | |
| | | |

1.25 Explanation necessary for an understanding of the transactions

Non-cash financing and investing activities

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows
- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

⁺ See chapter 19 for defined terms.

Financing facilities available

Add notes as necessary for an understanding of the position.

| | | Amount available \$A'000 | Amount used \$A'000 |
|-----|-----------------------------|-----------------------------|------------------------|
| 3.1 | Loan facilities | | |
| 3.2 | Credit standby arrangements | | |

Estimated cash outflows for next quarter

| | | \$A'000 |
|-----|----------------------------|---------|
| 4.1 | Exploration and evaluation | 50 |
| | | |
| 4.2 | Development | |
| | | |
| | Total | 50 |

Reconciliation of cash

| show | nciliation of cash at the end of the quarter (as n in the consolidated statement of cash flows) to lated items in the accounts is as follows. | Current quarter \$A'000 | Previous quarter \$A'000 |
|------|---|----------------------------|-----------------------------|
| 5.1 | Cash on hand and at bank | 22 | 12 |
| 5.2 | Deposits at call | 168 | 372 |
| 5.3 | Bank overdraft | | |
| 5.4 | Other (provide details) | | |
| | Total: cash at end of quarter (item 1.22) | 190 | 384 |

Changes in interests in mining tenements

| | | Tenement reference | Nature of interest (note (2)) | Interest at beginning of quarter | Interest at end of quarter |
|-----|--|-----------------------|----------------------------------|--|----------------------------------|
| 6.1 | Interests in mining tenements relinquished, reduced or lapsed | | | | |
| 6.2 | Interests in mining tenements acquired or increased | | | | |

⁺ See chapter 19 for defined terms.

Issued and quoted securities at end of current quarter Description includes rate of interest and any redemption or conversion rights together with prices and dates.

| | | Total number | Number quoted | Issue price per security (see note 3) (cents) | Amount paid up per security (see note 3) (cents) |
|------|---|--|---------------|---|--|
| 7.1 | Preference +securities | Nil | Nil | | |
| 7.2 | <i>(description)</i> Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy- backs, redemptions | | | | |
| 7.3 | ⁺ Ordinary securities | 148,866,279 | 148,866,279 | | |
| 7.4 | Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy- backs | | | | |
| 7.5 | +Convertible debt securities | Nil | Nil | | |
| 7.6 | (<i>description</i>) Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted | | | | |
| 7.7 | Options (description and conversion factor) | | | Exercise price | Expiry date |
| | | 180,000 270,000 3,200,000 100,000 | | 14 cents 16 cents 20 cents 15 cents | 20-Oct-11 19-Oct-10 30-Nov-10 11-Dec-10 |
| 7.8 | Issued during quarter | | | | |
| 7.9 | Exercised during quarter | | | | |
| 7.10 | Expired during quarter | | | | |

⁺ See chapter 19 for defined terms.

| 7.11 | Debentures (totals only) | Nil | Nil | |
|------|---|-----|-----|--|
| 7.12 | Unsecured notes (totals only) | Nil | Nil | |

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here:

...... Date: 30 July 2009 (Director/Company secretary)

Print name: Jay Stephenson

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.

⁺ See chapter 19 for defined terms.

5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

== == == == ==

⁺ See chapter 19 for defined terms.