



Address
Level 11, BGC Centre
28 The Esplanade Perth, WA 6000
Phone
+61 8 9486 4036

ABN
96 095 684 389

WEBSITE
www.frontierresources.net.au

ASX Limited
Market Announcements Platform

1 February 2021

Fieldcrew Re-Mobilised to Kimono Gold Project

- A team of two geologists have re-mobilised to the Kimono gold prospect to continue with trench and outcrop rock sampling and mapping program over the highly prospective Kimono vein system along the eastern boundary of the Tolukuma mining lease. A new camp has been built and an assessment of potential geohazards undertaken.
- Sampling of a series of 8 to 10 trenches is planned over Kimono Central Vein where Frontier recently announced (13 January 2021) rock sample results of **101 g/t Au, 80.9 g/t Au, 52.7 g/t Au and 22.2 g/t Au** and trench results of **2.1m @ 24.68 g/t Au, including 1.1m @ 42.70 g/t Au**.
- Sampling of a series of at least three trenches is planned over the newly discovered Tassy gold vein where recent sampling (19 November 2020) by Frontier returned **4.0m @ 4.78 g/t Au**, including **3.0m @ 6.32 g/t Au**, including **1.0m @ 15.5 g/t Au + 24.6 g/t Ag**.
- Geological mapping and outcrop rock sampling is planned along the Kimono vein for a further 1km north where historical rock sampling result (17 December 2020) included **12.90 g/t Au, 5.90 g/t Au, 6.68 g/t Au and 4.58 g/t Au** within four historical outcrop sites.

Frontier Resources Limited (**Frontier** or the **Company**) is pleased to announce that a fieldcrew has been re-mobilised to the Kimono gold prospect (Figure 1) to focus on a follow-up trench sampling program in the Kimono-Tassy vein areas to define drilling targets. Regional mapping and sampling are also planned along the northern section of Kimono which consist of a group parallel veins interpreted to be around 20-40m wide occurring along the eastern boundary of the Tolukuma Mining Lease ML104 (Figure 2).

Kimono is defined by mineralised zones extending for about 4.0km encompassing the Kimono Central, Kimono North, 120 vein, Dudu vein and Tassy vein (Figure 2). The best sampling results by Frontier (refer to ASX Announcement dated 13 January 2021) were from Kimono Central and included rock chip values of **101 g/t Au and 13.2 g/t Au** and rock float values of **80.9 g/t Au and 52.7 g/t Au**, indicating this is a high-grade segment of the Kimono Vein.

Hand trenching carried out by Frontier in October/November 2020 returned results including:

Kimono Vein:

- **KC01: 10.0m @ 1.99 g/t Au, including 2m @ 3.46 g/t Au;**
- **KC06: 3.0m @ 4.46 g/t Au;**
- **KC08: 2.1m @ 24.68 g/t Au, including 1.1m at 42.70 g/t Au; and**
- **KC09: 5.0m @ 1.14 g/t Au.**

Tassy Vein:

- KT-06: 4.0m @ 4.78 g/t Au, including 1.0m at 15.50 g/t Au;
- KT-11: 1.0m @ 0.66 g/t Au; and
- KT-12: 1.0m @ 2.59 g/t Au.

Best rock chip results at Tassy include **2.13 g/t Au** and **1.15 g/t Au**.

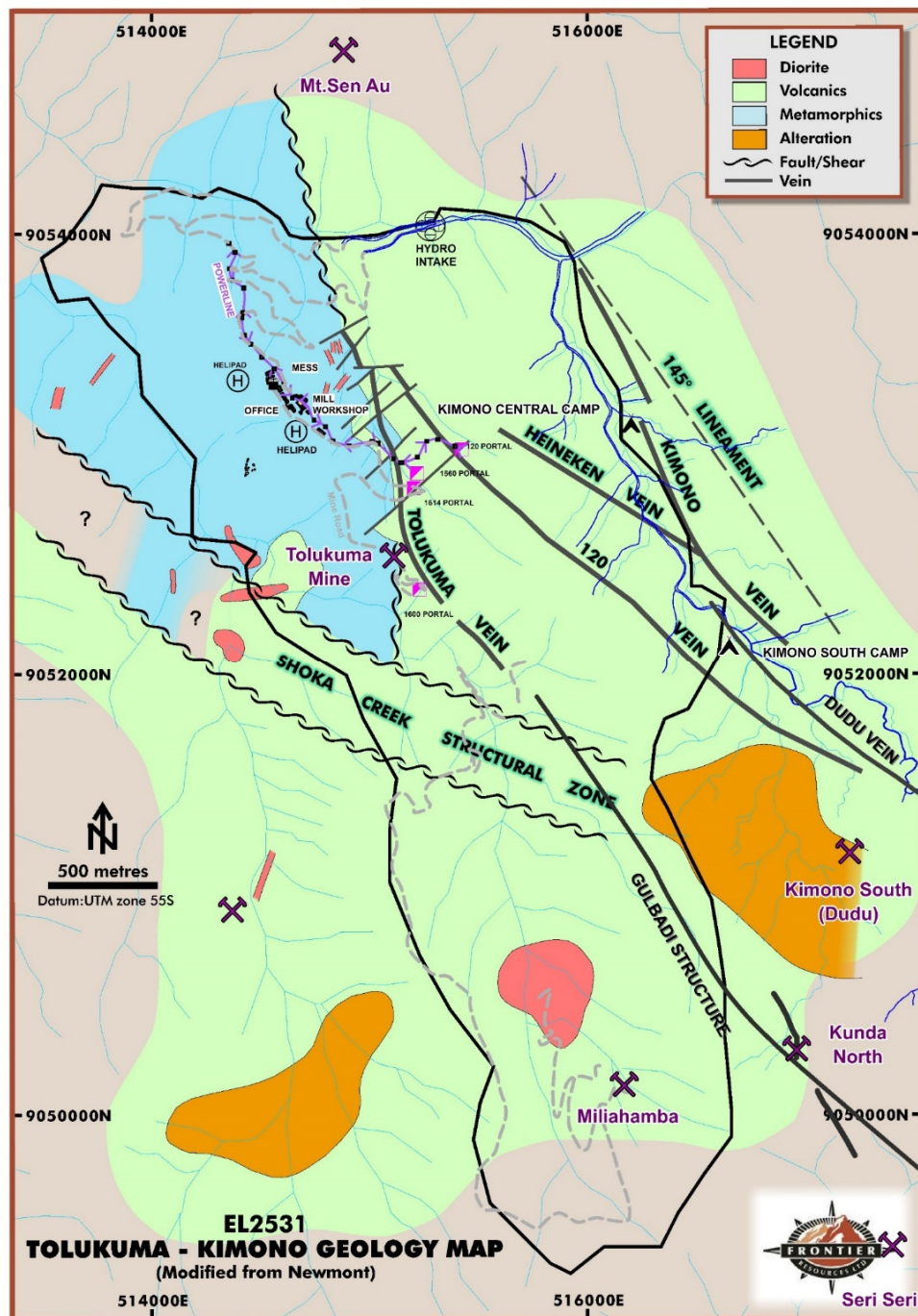


Figure 1: Kimono Geology and Vein Systems

During the current fieldwork program, Frontier will also undertake a geological mapping and rock sampling program along the northern section of the Kimono vein (Figure 2) to re-locate mineralised zones for additional trench sampling. Historical rock sampling between years 1999-2000 by Tolukuma Gold Mines along this section of the Kimono vein (refer to ASX Announcement dated 2 July 2020) include:

- **5.90 g/t Au** in Outcrop #1;
- **6.68 g/t Au** in Outcrop #2;
- **4.58 g/t Au** in Outcrop #3; and
- **12.90 g/t Au** in Outcrop #4.

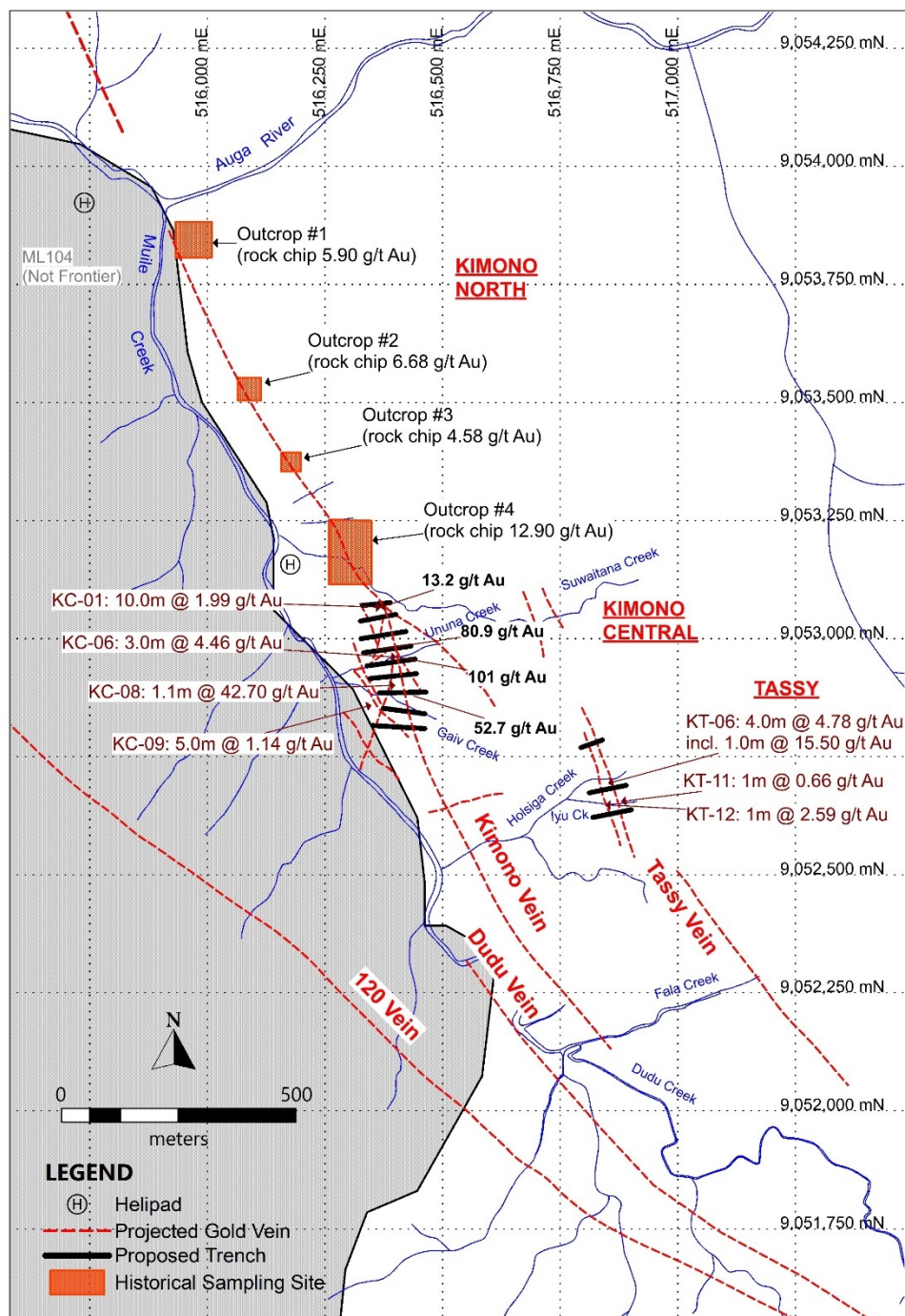


Figure 2: Kimono Area Highlights and Proposed Trench Sampling Sites



The Kimono vein structure has gold mineralisation associated with quartz veining, silicification and crackle breccia veining controlled by steeply dipping NW-NNW trending structures. In Lower Holsiga Creek, a 1.15 g/t Au sample of a 10m wide breccia zone contains clasts of quartz vein and altered rock fragments in a sulphide-rich matrix (Figure 3).

Figure 3: Kimono Vein 10m Wide Breccia Zone of 1.15 g/t Gold

This announcement has been authorised for release by the Directors of the Company. For additional information please visit our website at www.frontierresources.net.au

FRONTIER RESOURCES LTD

Competent Person Statement:

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 Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and Non-Executive Director for Frontier Resources. Peter Swiridiuk 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 2012 Edition of the Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources. Peter Swiridiuk consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

Frontier Resources Ltd Exploration Licence Information

Exploration Licence Number and Name	Ownership	sub-blocks	AREA (sq.km)*	Grant Date	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	130	441.72	25-Feb-19	24-Feb-21
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	211	719.51	N/A	N/A
Total of Granted EL's		130	441.72		

*1 sub-block approx. 3.41 sq.km

NB: The PNG Mining Act-1992 stipulates that EL's are granted for a renewable 2 year term (subject to satisfying work and expenditure commitments) and the PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.

JORC Code, 2012 Edition – Table 1 Report of Exploration Results

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> All samples were collected, bagged and labelled onsite, and transported to the field Camp by or under the supervision of a geologist or experienced field assistant. In camp, the samples were checked to verify numbers; sun dried and packed in sealed poly-weave sacks for consignment to the ALS laboratory in Brisbane where all samples are sorted, pulverised (85%<75µm) up to 2kg and fire assayed for total gold with a 30g charge. All sample locations and sample numbers were logged in a sample ledger. Material aspects of the mineralisation are noted in the text of the document.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program.
Sub-sampling techniques and	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program.

Criteria	JORC Code explanation	Commentary
sample preparation	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sampling sizes, type and location are appropriate for the quartz vein material being sampled. Samples taken by Frontier have been sent to ALS Laboratories in Brisbane for preparation. All samples are crushed to 70% less than 2mm and rotary split off to 250g, sorted and pulverised (85% < 75µm) up to 2kg with a final 30g submitted for assay. Every 50 samples is selected at random for routine Quality Control tests (LOG-QC).
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Rock samples taken by Frontier have been sent to ALS Laboratories in Brisbane for preparation. Prepared samples are fire assayed at the ALS laboratory for total gold with a 30g charge (FA50/AA). All rock, trench and soil samples have undergone aqua regia digestion with ICP-MS Finish (ME-MS41) at the ALS laboratory in Brisbane for a suite of 51 elements (Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr). For gold assays > 50 ppm, gravimetric assaying was completed with Au 50g FA-GRAV finish (Au-GRA22) and Ore Grade As – Aqua Regia (As-OG46) at the ALS Townsville laboratories. Levels of accuracy are obtained in the ALS assaying results of Au 0.005 ppm, Ag 0.01 ppm, As 0.1 ppm, Ba 10 ppm, Cu 0.2 ppm, Mo 0.05 ppm, Pb 0.2 ppm, Sb 0.05 ppm and Zn 2 ppm. Samples have been stored at ALS laboratories for future re-analysis if required. Duplicates and blank have not been used by Frontier due to the reconnaissance nature of the sampling program by Frontier. Duplicates, Standards and Blanks have been used by ALS Laboratories for their own quality assurance procedures.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Verified by senior geologist and other geologists onsite at the time. No drilling has been undertaken by Frontier in this fieldwork program. All assay data is stored as digital Excel spreadsheets and stored in reports submitted to the MRA library in digital PDF and Excel formats.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program. Soil, trench and rock samples were located initially by GPS and tape and compass surveying of creeks and GPS readings taken. Soil sampling was done at 20m spacing using corrected slope distance. Trench sample spacing was generally 0.5-1.0m. Map Datum is AGD66. Topographic control is low with 40m contours from 1:100,000 plans and 10m contours from airborne DTM contours.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Refer to any attached plans and tables for rock and trench/costean spacing. No drilling has been undertaken by Frontier in this fieldwork program. Trench locations and hence data spacing and distribution is not yet sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures. Sample compositing was not applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program. Seven soil lines were established during the field program along topographic ridges and spurs. Trench samples were taken to intersect known mineralisation from surface trench results in a nominally perpendicular orientation as much as practicable. Sample intervals are selected based upon observed geological features and the strike of the narrow quartz veins. Sample intervals are selected based upon observed geological features and the strike of the quartz veins. Trench/costean samples have been taken selectively within each trench generally at 1m intervals.

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Access to site is controlled and remote. Soil, rock and trench samples are stored on-site in a remote field camp. Site employees transport samples to the PNG Capital of Port Moresby by helicopter. Local employees transport the samples to the analytical lab via air cargo. The laboratory compound in Brisbane, Australia is secured.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews of sampling techniques and data have been performed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Frontier Resources Ltd have a 100% ownership of Frontier Copper (PNG) Limited, which hold 100% title to Exploration Licence EL 2531-Tolukuma. There are no joint ventures or partnerships in place. Frontier Copper PNG Ltd IPA Certification Number: 91414 was re-issued on 26th April 2019 and originally Certified 8th November 2005. An amalgamation of Frontier Copper (PNG) Ltd and Frontier Gold (PNG) Ltd has been approved by the PNG Investment Promotion Authority (IPA) and awaiting the issue of new certificate. There are no known impediments to operate in the Tolukuma EL. Tenements are granted by the Minister of Mines for a period of two years and security is governed by the PNG Mining Act 1992 and Regulation. Frontier has applied for a two year tenement renewal due 24th February 2021 which required a 50% reduction in tenement size. A Warden's Landowner hearing is scheduled on 10th March 2021 as part of the renewal process.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> EL2531 Tolukuma was initially stream sampled by Kenecott in the 1960's afterwards by CRAE who completed both stream sediment sampling and rock chip sampling. Newmont 1985-1988 discovered the Tolukuma vein and completed costean and soil sampling and diamond drill holes testing the NW-SE Taula Vein. Newmont completed resource drilling and mine feasibility studies. From 1989-1992 Newmont completed 2nd phase drilling. Dome Resources purchased the Exploration license from Newmont in 1992 and completed feasibility studies in the ML104, granted in 1994, with first gold poured in December 1995. In 2000, Durban Roodepoort Deep purchased Dome Resources and took over all its interests in PNG. TGM's work programs (now 100% DRD included trench sampling and mapping. Work commenced at Saki in 2002 with a programme of extensive trench sampling and mapping and drilling at the Kunda prospect both inside ML104 and within the current EL2531. Petromin PNG Holdings acquired 100% of the Tolukuma projects from Emperor Mines in 2008. Singapore company Asidokona purchased Tolukuma Gold Mines Ltd from Petromin (PNG Government) in November 2015. The Tolukuma gold mine is currently under control of the MRA. New investment is currently being sought to refurbish the mine, and establish a resource drilling program on ML104. EL2531 was acquired by Frontier on a first application basis when it was offered by the MRA.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Kimono consists of narrow gold mineralised structures of mainly quartz with minor sulphides including pyrite, marcasite, stibnite and cinnabar and silica-sulphide banding. Mineralisation is described as "poddy style" with higher gold grades located where cross-cutting clay-sericite altered cross structures containing local minor silicification and trace sphalerite intersect the main Kimono Vein. The Kimono structure was traced for about 1km SSE from the Auga River. The outcrops range from 20-40m in strike length and 0.1m-3.0m wide. The quartz veins are hosted within rocks of the Pliocene to Miocene Mt.Davidson Volcanics comprised of a

Criteria	JORC Code explanation	Commentary
		<p>complex of Andesitic flow units and Pyroclastic flow units that have been subsequently intruded by quartz Diorites and Monzonites.</p> <ul style="list-style-type: none"> The dominant lithology of Kimono is basaltic andesites with minor agglomerate breccias and tuffaceous volcanics, which are members of the Boundary Volcano Suite. At Kimono South, wide intervals of weakly anomalous gold (>0.05g/t Au) were defined by ridge-spur soil samples, including separate intervals of 160m and 140m. Historical mapping, rock chip sampling, soil sampling, trenching and airborne geophysics have defined a mineralised zone extending for about 4.0km from the Auga River SSE to upper Muile Creek. Mineralisation is described in the text.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> No drilling has been undertaken by Frontier in this fieldwork program. Frontier has acquired historical reports with drillhole and trench information that have been reviewed and interpreted. Digital databases have been acquired over a number of prospects within EL2531 and form part of the regional evaluation of prospects within EL2531. This evaluation has been used for the 50% tenement reduction process as required for tenement renewal.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Exploration results are reported typically within veins. Trench grades are compiled using length weighting. No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The relationship between historical mineralisation widths & intercept lengths from trench/costeans is moderately well understood. Assay results from the Frontier sampling have been received and interpreted. Historical drillholes are generally targeted perpendicular to known veins. True width projections are noted in Tables are noted where relevant within the text of this report. No drilling has been undertaken by Frontier in this fieldwork program.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Appropriate maps, sections and tabulations of drillhole, rock, soil and trench/costean intercepts are included where relevant.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Comprehensive reporting of all drilling, trench and soil sample results has occurred in historical reports and reported here where appropriate. Representative reporting of Exploration Results by Frontier is comprehensive.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> All meaningful exploration data to date has been included in this and previous ASX announcements. Historical drill hole assay data from the Kimono and Kunda prospect have yet to be acquired. Drill core from the Kimono prospect are currently stored at the Saki camp and have been re-logged. These may be re-sampled at a later date.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Current Frontier exploration is aimed at testing for lateral extensions of known veins and interpreted vein systems at Kimono and Saki prospect areas. Appropriate plans are included where possible. The nature of planned further work is provided in the body of text. The MRA has approved a variation in work commitments to allow Frontier to appropriately plan a trenching program at the Saki and Kimono prospects ahead of drilling.