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ASX: FNT

ASX Limited
Company Announcements Office

27th April 2017

TECHNICAL REPORT – QUARTER ENDED 31 MARCH 2017

Frontier Resources Ltd (ASX: FNT) (**Frontier** or the **Company**) is focussed on mineral exploration in highly prospective Papua New Guinea (PNG). The Company is targeting copper+/- gold +/-molybdenum porphyries and intrusive related epithermal gold deposits on its 100% owned Bulago and Muller Exploration Licences and 90% owned Gazelle EL Application 2515 (including the former Sinivit gold Mine) and the Sewatupwa and Lake Lavu EL Applications. Exploration and drilling is strongly warranted at all areas.

The Papuan Fold Belt contains Frontier's Bulago and Muller Exploration Licences and the Ok Tedi porphyry copper-gold Mine (located 80km WNW of Bulago), Porgera intrusive/ epithermal related gold Mine (120km east of Bulago) and Kili Teke porphyry copper-gold Deposit (50km east of Bulago).

The Gazelle Exploration Licence Application (ELA) is contained within the Melanesian Arc that also contains the Lihir gold Mine, Panguna (Bougainville) porphyry copper-gold Mine and the Simberi gold Mine. Both terranes are extremely prospective for giant gold and copper deposits.

SUMMARY

Bulago EL

- Three diamond core holes (93.6m total of HQ TT) were completed at the Swit Kai Central Lower Horizon in March.
- A 0.6m intercept returned 50.7 g/t gold, from 13.9m to 14.5m downhole (adjacent to landslide colluvium that may have removed some of that mineralisation when it slipped), plus a 1.1m intercept that returned a weighted assay average of 79.18 g/t gold.**
- Stream sampling of the effectively unexplored but highly prospective area located to the west, northwest and north of Swit Kai was completed along with drainage float and outcrop sampling.

Gazelle ELA

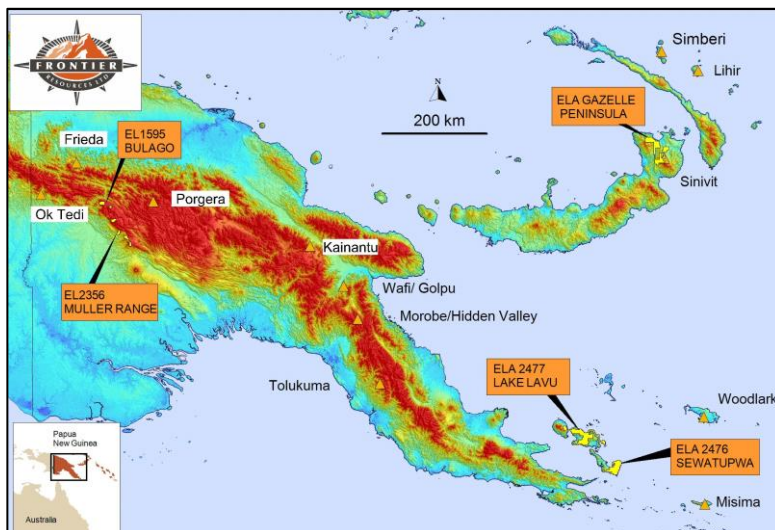
- An application for EL 2515 – the former Sinivit gold Mine, submitted in December 2016, plus much of Frontier's former East New Britain EL that was previously Joint Ventured with Ok Tedi Mining Ltd.
- The area contains significant Indicated and Inferred Gold Resources and has excellent access.
- ELA 2515 is now with the Minister for Mining awaiting his decision on being granted.**

Muller EL

- A brief reconnaissance program was completed and 13 samples were collected.

Corporate

- The 2016 Rights Issue was successfully completed and a 2017 Rights Issue has been initiated.



BULAGO

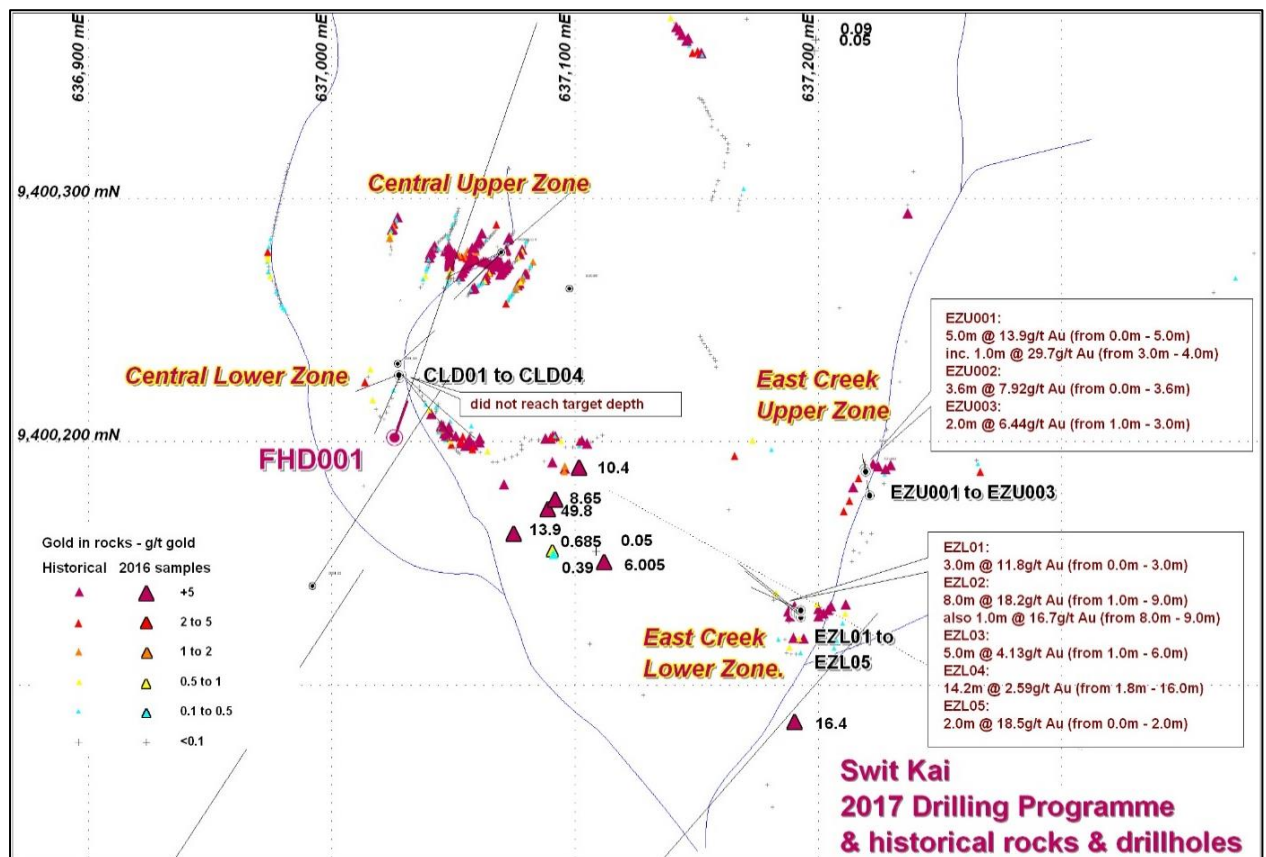
Drilling was completed at the Swit Kai Central Lower Horizon in March, with three relatively short holes (93.6m total of HQ TT) drilled on the FDH (SUG002) drill pad. The mineralised zone appears to be relatively tabular with an orientation of approximately 300 degrees magnetic and a dip of about 70 degrees to the south-west, plus sub-horizontal with a conformable component (to the sedimentary bedding). The precise orientation of the mineralised zone is not accurately known, but it is thought that the intercepts quoted represent about 90% of true width. The target was intersected by the former Frontier/Ok Tedi Joint Venture hole SUG002 (with 1.3m grading 27 g/t gold - announced to ASX on 4/7/2014).

Only three mineralised / silicified /brecciated core samples were analysed from hole FDH001, as extensive previous assaying has shown that they are the only geological types that normally contain gold. The FDH001 samples covered a total of 1.7m, but were not all contiguous.

A 0.6m intercept returned 50.7 g/t gold, from 13.9m to 14.5m downhole (adjacent to landslide colluvium that may have removed some of that mineralisation when it slipped), plus a 1.1m intercept that returned a weighted assay average of 79.18 g/t gold (including a 0.4m intercept that averaged 181 g/t gold -individual assays were 179 g/t gold and 183 g/t gold).

Sample Number	From (m)	To (m)	Intercept Length (m)	Average Gold g/t	Silver g/t	Arsenic ppm	Copper ppm	Zinc ppm
FDH001-1	13.9	14.5	0.6	50.7	22.2	532	101	470
FDH001-2	15.4	15.8	0.4	181	40.4	5610	1450	12700
FDH001-3	15.8	16.5	0.7	21	3.6	54	58	1530

Sample Number	From (m)	To (m)	Intercept Length (m)	Average Gold g/t	Silver g/t	Arsenic ppm	Copper ppm	Zinc ppm
FDH001-1	13.9	14.5	0.6	50.7	22.2	532	101	470
FDH001-2	15.4	15.8	0.4	181	40.4	5610	1450	12700
FDH001-3	15.8	16.5	0.7	21	3.6	54	58	1530
Weighted	15.4	16.5	1.1	79.18	17.0	2,074	564	5,592



Hole depths, collar location and orientation information are tabulated below. Historical hole SUG 002 was drilled at a 50-degree inclination on azimuth of 025 degrees magnetic (same as holes FDH001-003) and its collar was situated 1m to the NNE of hole FDH001; as such the holes sampled a similar section of mineralisation, but SUG002 had poor sample recovery, while FDH003 are now in Kiunga and will be shipped.

EL 1595 - BULAGO DRILLING INFORMATION							
Hole ID	Co-ordinates (AMG066)			Azimuth °		Inclination (degrees)	End of Hole Depth (m)
	Northing	Easting	RL (m)	(AMG)	(MN)		
FDH001	9,400,202	637,024	1,619	30	25	-40	22.9
FDH002	9,400,201	637,024	1,619	30	25	-60	23.6
FDH003	9,400,200	637,024	1,619	30	25	-80	47.1
FNT Swit Kai Central Lower Zone (SUG002 Pad) Total Meters of Drilling							93.6

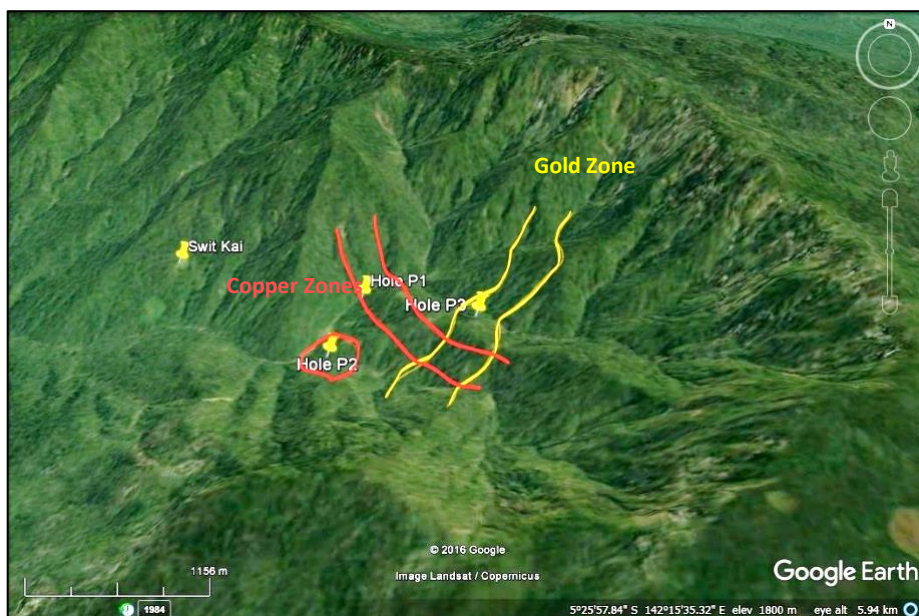
Basic geological logs are included below along with descriptions of the intervals sampled for analysis.

Hole FDH 001	0.0m to 13.9m - Landslide colluvium, 15.3m to 16.5m - Black mudstone with very little pyrite – strongly weathered at top and bottom, 16.5m to 16.8m – mudstone breccia, 16.8m to 17.6m - Black mudstone weakly silicified quartz carbonate veinlets fracture fill pyrite. Schistosity increasing downhole, 17.6m to 22.9m - Grey to white bleached mudstone alternating zones of strongly bleached and silicified mudstone and a 5cm wide breccia with angular mudstone fragments and fracture.
Sample FDH 001-1	13.9m to 14.5m - Mudstone with quartz veinlets and fracture filled pyrite, plus disseminations and weak silicification.
Sample FDH 001-2	15.4m to 15.8m - Hydrothermal breccia dark angular mudstone fragments with quartz stockwork veinlets, pyrite veinlets and pyrite aggregates.
Sample FDH 001-3	15.8 to 16.5m - Footwall breccia zone with very weak silicification and minor quartz + pyrite veinlets and disseminations.
Hole FDH 002	0.0m to 15.45m - Landslide colluvium, 15.45m to 23.6m - Variably silicified mudstone with rare pyrite veinlets.
Sample FDH 002-1	15.45m to 16.9m , 15.45m to 15.65m -Strongly weathered grey mudstone with minor angular fragments, fracture oxidation at lower contact, 15.65m to 16.9m - Weakly silicified pale grey mudstone with minor quartz stringers and fracture fill and disseminated pyrite veinlets.
Sample FDH 002-2	19.7m to 20.07m - Weakly silicified grey to pale grey mudstone with stringers and veinlets of quartz carbonate locally and minor pyrite, 5cm thick breccia with quartz veinlets and angular mudstone clasts, fracture fill pyrite stringers and disseminated aggregates at 19.75m.
Hole FDH 003	0.0m to 18.5m - Landslide colluvium with medium grained diorite and mudstone boulders and fragments, 18.5m to 35.6m - Variably silicified mudstone with rare pyrite veinlets, 35.6m to 47.1m- Pale grey to green moderate to strongly silicified diorite locally with veinlets of quartz and pyrite.
Sample FDH 003–1	18.5m to 19.2m , 18.5m to 18.8m - Broken and weakly weathered grey mudstone, 18.8m to 19.2m - Broken and weakly weathered grey mudstone with weak pyrite.
Sample FDH 003–2	33.0m to 33.5m - Weakly silicified black mudstone with quartz veinlets and pyrite fracture fill, 5cm breccias with quartz veinlets and fracture filling pyrite at 33.45m.
Sample FDH 003-3	35.9m to 37.1m - Moderately silicified medium grained green to pale green diorite, pale green to weak yellow bleached alteration minor veinlets of quartz with fracture filling pyrite bleached.
Sample FDH 003-4	37.1m to 37.8m , 37.1m to 37.3m - Milky colloform quartz with no sulphides, 37.3m to 37.8m - pale green moderate silicified medium grained diorite, weak bleaching and quartz veinlets with pyrite on fractures.
Sample FDH 003-5	38.6m to 40.1m - Moderately silicified medium grained green to pale green diorite with stringers and veinlets of pyrite locally, prominent massive pyrite veinlets (1cm thick) at 38.75m, breccia with quartz stockwork stringers + veinlets with fracture fill pyrite in quartz.
Sample FHD 003-6	40.1m to 41.3m - Moderate to strongly silicified and moderate to strongly altered medium grained pale green bleached diorite locally with pyrite stringers and veinlets, 40.9m to 41.2m - Strong pale green – weak yellow alteration with massive pyrite veining.
Sample FDH 003–7	44.3m to 44.9m - Moderately silicified medium grained diorite with quartz stringers / veinlets locally. Moderate to weak pervasive pyrite disseminations weak pervasive pale green weak bleaching/alteration.

Current hole GCZ001 (P3 on the plan) was drilled to 88.2m depth and suffered surficial caving challenges associated with the river gravels. Ultimately the hole could not be re-entered successfully and is being re-drilled at a 40-degree inclination.

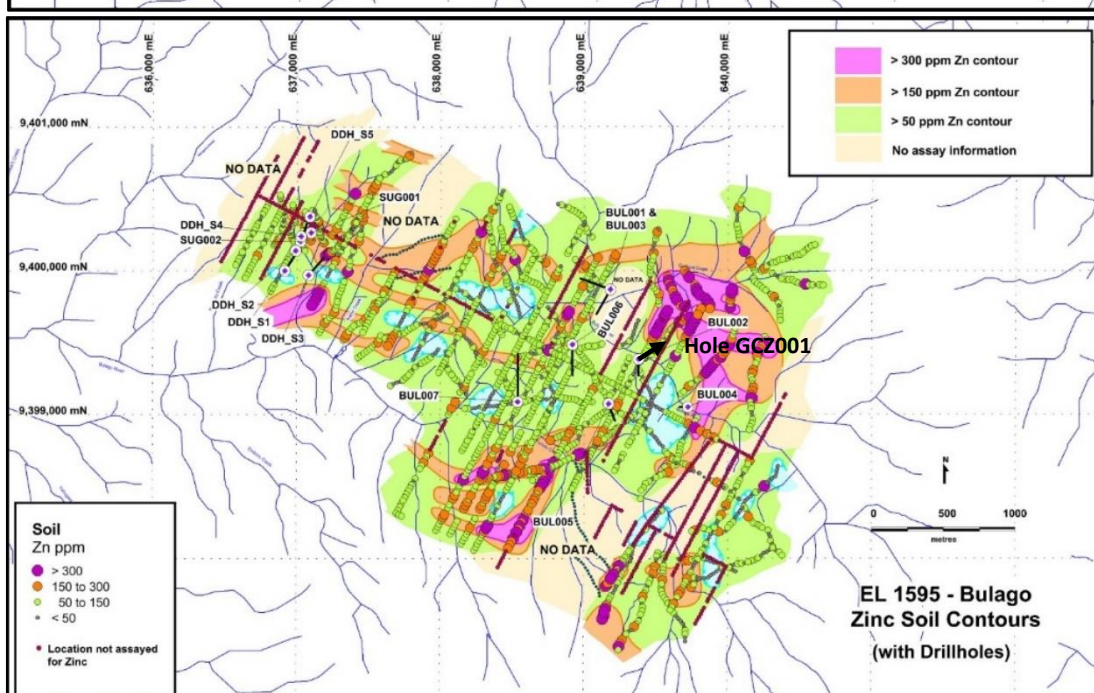
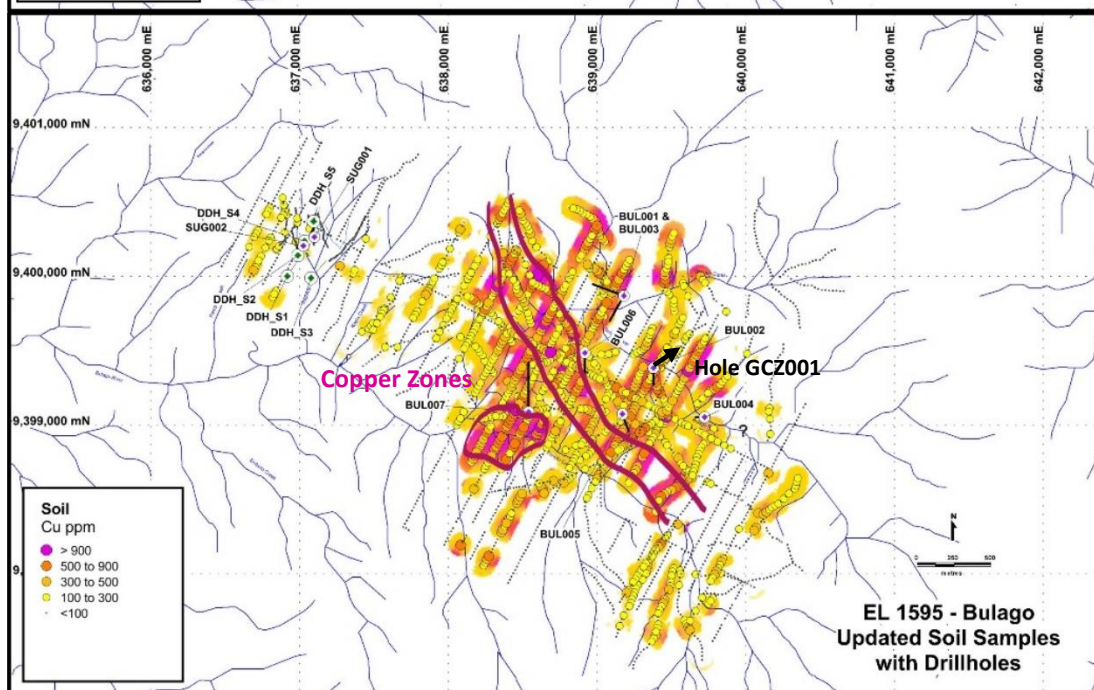
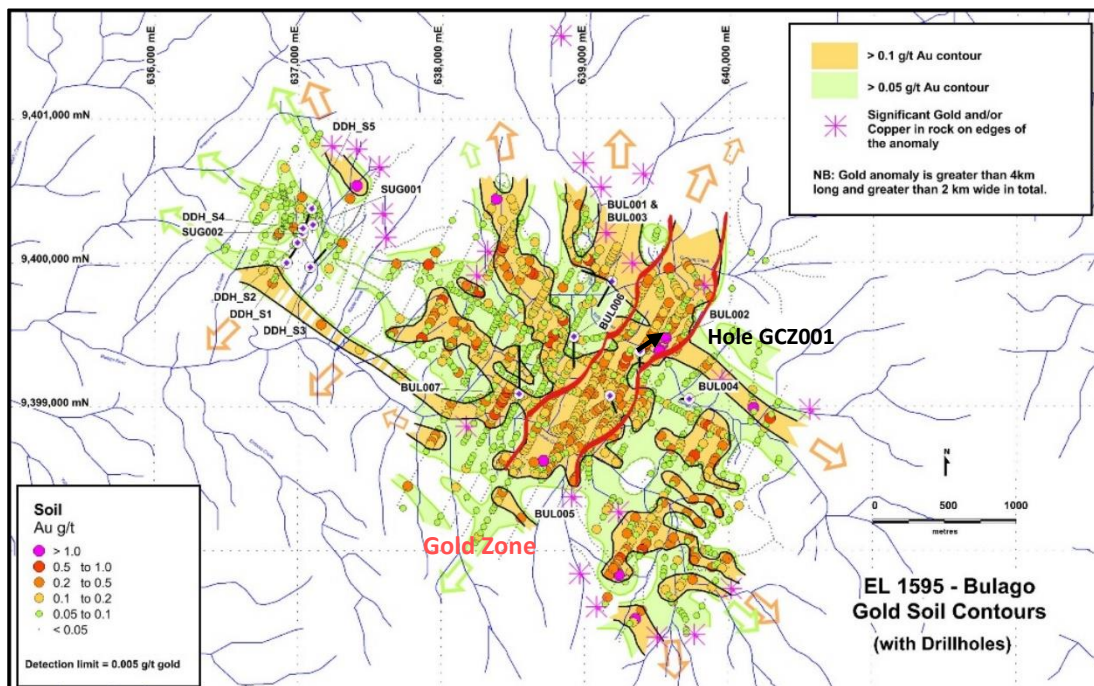
The hole is targeting the approximately 350m wide moderate /steep NW dipping gold (+copper) mineralised structural zone crossing the Bulago Valley – this is observed through an increased tenor of gold in soil geochemistry (bounded by the red lines on the gold in soil plan). Hole GCZ001 is drilling obliquely across the strike and across the dip from the pad of hole BUL002 towards the highest tenor/ most cohesive gold in soil anomaly on the grid. The basic log of hole GCZ001 is included below. Refer to ASX release dated 24/3/2017 for additional information.

The plans show the interpreted surficial gold and copper soil zones on an oblique north looking Google Earth image, and also on their respective soil geochemistry thematic plots.

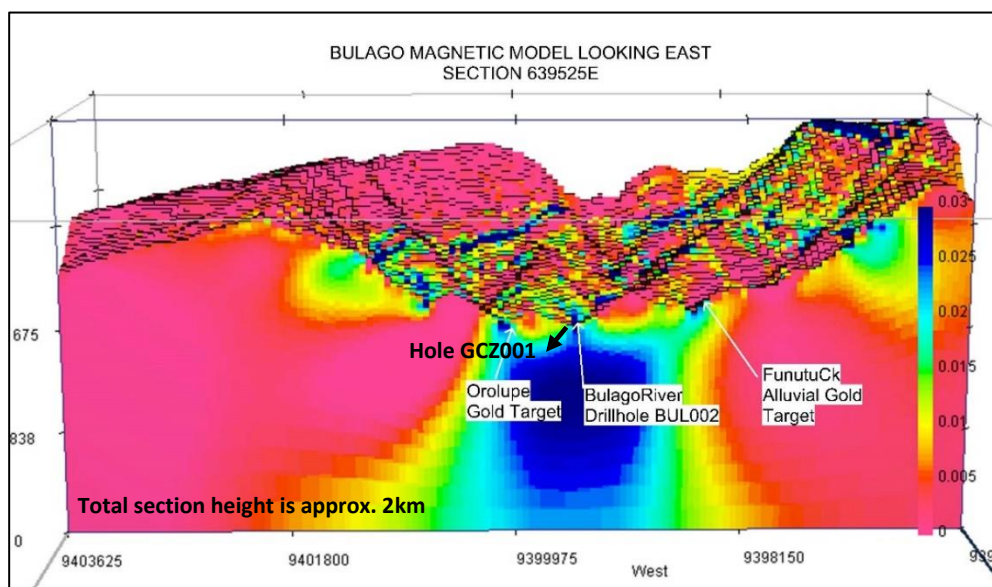


Hole GCZ001

0.0 to 6.5m	Former Bulago river bed alluvium.
6.5m to 9.5m	Strongly weathered feldspar porphyry with pervasive fracture oxidation. Fractures filled with pyrite veinlets plus 1% disseminated pyrite.
9.5m to 10.9m	Strongly silicified feldspar porphyry fracture filled and disseminated pyrite 3%, poor core recovery.
10.9m to 13.3m	Moderate to strongly silicified feldspar porphyry with 3% fracture filled and disseminated pyrite.
15.8m to 35.9m	Pervasive strong to intense silicified porphyry to diorite, moderate to strong fracture intensity, strongly weathered in places, quartz veining with fractured fill and disseminated and veinlet pyrite, very weak molybdenite in quartz veinlets, vuggy dogstooth quartz veinlets. Total 2 to 3%, minor breccia locally, alternating silicified fine grained dark grey weak feldspar- quartz porphyry.
21.8m to 24.3m	Intense silicified porphyry with quartz, white with pervasive brown overprinting alteration and fracture fill veinlets and 2% disseminated pyrite.
29.6m to 30.2m	Silicified porphyry breccia with up to 5mm quartz crystals in fine grained weak brown silicified matrix, pyrite replacing brown biotite. Fracture fill veinlets and disseminated pyrite -2%.
32.0m to 33.0m	Silicified intrusive crackle breccia with brown overprinting alteration and 2% fracture fill and disseminated pyrite.
43.9 to 88.2m	Light grey feldspar porphyry with sparse xenoliths of andesite, moderate -strong silicification, Sulphide intensity (pyrite + chalcopyrite) increasing downhole. Zones of intense silicification and weak pervasive brown alteration (biotite?). High fracture intensity throughout and local minor to moderate weathering.



Further NE and north (upslope) is the strongest zinc/lead plus gold soil anomaly on the grid, referred to on the aeromagnetic section herein as the Orolupe gold target. This zone represents a classic zinc/lead halo surrounding porphyry copper mineralisation and is also a very good drill target. There is also a significant copper in soil anomaly across the river and hence at a lower relative level to the gold and zinc.



The magnetic Idawe monzodiorite intrusive (as shown in the aeromagnetic derived section above) is approximately 1,500m to 1,800m in diameter. The Orolupe Creek gold geochemical target noted corresponds with the high zinc/ lead and gold in soil zone and occurs on the northern margin of the Idawe intrusive complex, slightly to the north of the current hole.

Hole GCZ001 (P3) is planned to drill on an azimuth of 050° magnetic (055° AMG /plan grid) at an inclination of -50° degrees, and it is hoped the rig will be able to reach to 350m downhole. If successful, this hole will test a horizontal distance of ~230m and a vertical distance of ~265m. Blue in the section is high magnetic susceptibility and pink/red is low susceptibility.

The gold in soil zone trends NE crossing the central part of the Bulago intrusive (and the magnetic susceptibility high), then crosses a magnetic susceptibility low zone within the intrusive, and also on its eastern margin. This magnetic low zone could represent magnetite destruction due to circulating hydrothermal fluids which could be associated with enhanced gold mineralisation. There is also a major zone of potassic alteration and an associated circular feature located east (and upslope) of the gold in soil zone that requires further investigation.

Hole BUL002 (reported to ASX 18/10/2012) is located near the eastern margin of the gold zone and drills out towards the south; it returned a wide intercept (63.2m) of low grade copper + gold near surface, and then a moderate intercept (31m) of low grade gold from 202m downhole.

BUL002 contained >10 times the amount of copper associated with its near surface gold intercept compared to BUL005, which was located about 375m to the SW and approximately 195m vertically higher. Hole BUL005 is also located in the eastern sector of the NE trending gold in soil zone, and off the northern side of the interpreted NW trending copper mineralised structural zone that hole P1 will target (if drilled).

BUL005 (reported to ASX 18/10/2012) contained a weighted average of 363.1m (surface to end of hole) grading ~0.1 g/t gold with very low copper, silver and molybdenum, but a peak of 2m grading 1.80 g/t gold.

Hole BUL002 Weighted Assay Results						
From (m)	To (m)	Intercept Length	Gold (g/t)	Copper (ppm)	Silver (g/t)	Molybdenum (ppm)
27.8	91.0	63.2m	0.10	1152	0.6	23
86.1	87.0	incl. 0.9m	1.32	585	5.8	8
202	233	plus 31m	0.17	247	0.1	5
Hole BUL002 Peak Assay Results						
			Gold (g/t)	Copper (ppm)	Silver (g/t)	Molybdenum (ppm)
End of Hole =331.1m			1.32	2,250	5.8	62
Hole BUL005 Weighted Assay Results						
From (m)	To (m)	Intercept Length	Gold (g/t)	Copper (ppm)	Silver (g/t)	Molybdenum (ppm)
0.0	363.1	363.1m	0.09	95	0.3	3
6.9	54.0	incl. 47.1m	0.15	76	0.3	2
197.0	199.0	plus 2.0m	1.80	173	0.4	4
Hole BUL005 Peak Assay Results						
			Gold (g/t)	Copper (ppm)	Silver (g/t)	Molybdenum (ppm)
End of Hole =363.1m			1.80	804	1.7	20
Pad P3 DRILLING INFORMATION						
Hole ID	Approx. Co-ordinates (AMG066)			Azimuth °		Proposed End of Hole Depth (m)
	Northing	Easting	RL (m)	(AMG °)	(MN °)	
GCZ001	9,399,390	639,390	1,715	55	50	350

Gold in soil geochemistry also shows a trend paralleling the Bulago river on its north side that may represent a higher grade structural zone with the same general orientation as the Swit Kai high grade gold mineralisation. There have been multiple > 1 g/t gold intercepts demonstrated in the intrusive rocks in the Bulago Valley and it is reasonable to expect that these structures in the valley could also be gold mineralised. Hole GCZ001's (P3) orientation will enable the evaluation of several structural and mineralisation directions simultaneously. This orientation provides the best option to evaluate the abovementioned structural and mineralisation directions.

General exploration has been undertaken, including stream sampling of the effectively unexplored but highly prospective area located to the west, northwest and north of Swit Kai, along with drainage float and outcrop sampling as soon as possible. There are known gold anomalies in the parts of these drainages that have been sampled and some significant gold in rocks noted by previous explorers, but Frontier has never evaluated this region.

An aeromagnetic anomaly located proximal and to the north of Swit Kai (labelled Suguma Creek Skarn in the plan), could represent pyrrhotite related gold mineralisation has been evaluated. Note that parts of the Swit Kai high grade gold mineralisation contain substantial quantities of pyrrhotite, as seen in high sulphide sections in outcrop (photo) and core in East Creek Upper Zone hole EZU001 (5.0m grading a weighted average of 13.92 g/t gold released to the ASX 13th June 2016).

GAZELLE PENINSULA EL APPLICATION (Former Sinivit Gold Mine)

The Gazelle EL Application (2515) is now with the Minister for Mining awaiting his decision on being granted. A positive and productive Exploration Licence Application Wardens Court Hearing was completed early March.

The EL Application covers the former Sinivit gold Mine and parts of Frontier’s former EL 1592, which contains two large aeromagnetic porphyry copper-gold signatures and other copper and gold prospects. The landowners are supportive of exploration and mining and wish to see continued development in their region after the lull that has occurred over the last 4 to 5 years.

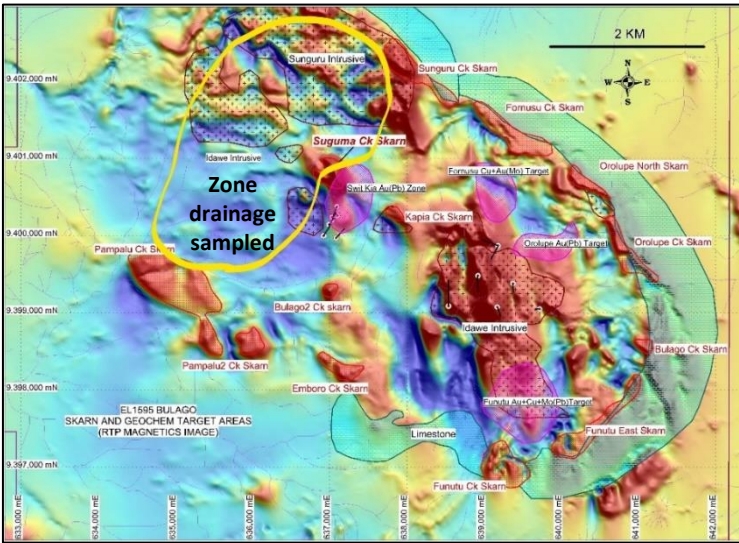
The expenditure commitment offered by Frontier is K1,500,000 per year (about A\$ 530,000), with substantial exploration planned, including drilling and a new Feasibility study to be undertaken subsequent to grant and a capital raising.

The information below, regarding the former Sinivit Mine, was released to the ASX on 31 January 2017 and there have not been any material changes since then. The modest Sinivit vat leach gold mine was operated from late 2007 until early 2012 and finished processing ore in early 2013.

Evaluation of the resource estimations of the former Sinivit Mine area was undertaken to comply with Canadian Regulators 43-101 format (roughly equivalent to JORC), which shows that **the mine area contains a total of approximately 217,000 ounces of Indicated and Inferred resources of gold, grading 3.93 g/t, that is hosted in 1.7 million tonnes of ore.**

Sinivit Gold Resources			
Zone	Tonnes	Gold Grade (g/t)	Contained Gold (ounces)
*Southern Oxide (3/10/2011 estimate)	103,000	4.40	14,600
*Central Oxide (3/10/2011 estimate)	184,000	3.80	22,700
*Northern Oxide (3/10/2011 estimate)	67,000	3.10	6,500
** Kavrusuki (11/4/2013 estimate)	283,000	3.70	33,000
Total Indicated Resources (1.5g/t cut off)	637,000	3.78	77,402
Total Inferred Resources - All Areas (1.5g/t cut off)	1,084,000	4.02	140,190
Total Indicated + Inferred Resources	1,721,000	3.93	217,592

- The estimates are foreign estimates and are not reported in accordance with the JORC code.



- A competent person has not done sufficient work to classify the foreign estimates as mineral resources in accordance with the JORC code.
- It is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as mineral resources in accordance with the JORC code.
- No physical exploration is required to be able to report these resources in accordance with the JORC code. Mining Associates could readily modify their 43-101 report to become JORC compliant for a fee. Otherwise the digital data utilised must be obtained and remodelled in Surpac and reported to the ASX.
- The timeframe to accomplish this task requires that first the EL must be granted. As no physical exploration is required, there are no major issues with funding such an exercise and it would be done from existing funds or a capital raising would be undertaken to accomplish such.
- Additional information relating to the resource estimations is provided in Section 3 of Frontier's quarterly activities report released to ASX on 31 January 2017.
- The information provided in this market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the Sinivit Mine Project and is based on information compiled by Peter A. McNeil - Managing Director of Frontier Resources, who consults to the Company via Exploration & Management Consultants Pty Ltd and is a Member of the Aust. Inst. of Geoscientists.

The Sinivit area and much of the EL application has excellent access with an all-weather road from Rabaul (located ~50km to the NE). The quartz vein system is present for about 10 km within the EL application and exploration potential is excellent.

The Nengmutka high sulphidation vein system is a 10 km by 400 m wide complex structural zone containing gold-silver-copper-tellurium mineralisation. Economic mineralisation has been identified over a one kilometre strike of the Sinivit Vein with significant unmined oxide mineralisation developed over a 900-metre strike length on the Kavursuki Vein. No sulphide mineralisation has been mined.

Significant gold and tellurium remains in the vats at the former Sinivit Gold Mine in ELA 2515 and testwork by the former operator has indicated that there is potential to extract it from the existing vat material. In addition, testwork indicated that future sulphide ore processing should incorporate tellurium extraction through an appropriate circuit.

None of the known Sinivit sulphide Inferred Resource has been mined and it is open along strike in both directions and down dip at depth. The potential to substantially increase the sulphide resource is excellent and if/once granted, there will be a major emphasis on accomplishing this to potentially allow a bigger and more robust mining operation.

Thirty-eight historic diamond core drill holes have assays for tellurium associated with the potentially economic oxide and sulphide gold intercepts. Significant downhole intercepts associated with sulphide resources (unmined) include hole 87WDD040A with 4.2m grading 12.50 g/t gold + 725 ppm tellurium + 12.5 g/t silver (148.6m to 152.8m), plus 13.5m grading 8.56 g/t gold + 505 ppm tellurium + 9.9 g/t silver (164.55m to 178.05m) and 86WDD017 with 1.45m grading 21.7 g/t gold + 1,550 ppm tellurium + 25 g/t silver (82.75m to 84.2m). Oxide resources (mined and now in the vats) included 86WDD021 with 14.7m grading 11.10 g/t gold + 1156 ppm tellurium + 14.1 g/t silver (7.15m to 21.85m).

Forty-three RC drill hole composite samples from inside the Northern and Central Oxide pits were re-assayed by the former operator for tellurium. The Northern Oxide pit had highlights of 6.0m of 27.68 g/t gold + 1,980 ppm tellurium, 12.0m of 4.01 g/t gold + 590 ppm tellurium and 8.0m of 16.43 g/t gold + 610 ppm tellurium. The Central Oxide Pit had highlights of 4.0m of 57.3 g/t gold + 1,640 ppm tellurium, 6.0m of 10.05 g/t gold + 980 ppm tellurium and 2m of 15.85 g/t gold + 1,430 ppm tellurium.

Testwork on a Banka drilled composite sample from the vats returned a size fraction screened weighted average grade of 2.36 g/t gold + 132ppm tellurium. This is a preliminary estimate of what remains in the vats. Approximately 54 % of the remaining gold was noted in the fraction greater than 2 mm.

The weighted average of all in pit RC drill holes analysed for tellurium is 264m grading 355 ppm, or more than double the average estimated to remain in the vats (by limited analyses from Banka drilling).

The testing indicated tellurium would require an acid leach and subsequent gold leaching would require a basic leach. There has been little metallurgical testing to determine the process required for optimum treatment of the primary sulphide resource, however, it will likely require a specific primary ore floatation

circuit. Initially the feed for the new sulphide circuit could be obtained from the ore remaining in the vats, with the vats then utilised as tailings dams. New tailings storage facilities would be required if/when the sulphide resource comes into production.

The Kankberg underground mine in Sweden contains a reserve of 2,880,000 tonnes grading 4.1g/t gold (380,000 ounces) + 186 ppm tellurium and this seems comparable to Sinivit (see resource statement below). The US Geological Survey lists Kankberg as one of the only mines in the world with tellurium as a direct product.

At very shallow near surface levels, high sulphidation systems display enrichments in tellurium, antimony and locally mercury. The auriferous Sinivit hydrothermal veins (Types II, III and IV veins) contain an association of minerals below the oxide zone, in decreasing order of abundance of chalcopyrite, pyrite, bornite, tetrahedrite, chalcocite, telluride and gold minerals. Telluride minerals include native tellurium, rickardite, hessite, calaverite and several gold-silver and bismuth tellurides.

More than 90% of tellurium worldwide has been produced from anode slimes (from electrolytic copper refining) and the remainder from skimmings at lead refineries and from flue dusts and gases. Other potential sources of tellurium include bismuth telluride and gold telluride ores.

The oxide ore from the previous mining operation at Sinivit was processed via vat and heap leaches. There were 17 vats and 2 heaps (over vats) reported to contain approx. 280,000 tonnes of material crushed to nominally 80% passing 10 mm. Each vat was leached with cyanide for a varying time span and gold recoveries were estimated by the operator to about 66% (i.e. approx. 34% of the original gold remains in the vats due to the poor benefaction related to the vat leaching process utilised).

The largest consumers of tellurium are applications in solar panels and as a semiconductor material. Cadmium telluride (CdTe) solar panels achieve some of the highest efficiencies for solar cell electric power generation. In addition, tellurium is used in metallurgical applications in iron, copper and lead alloys.

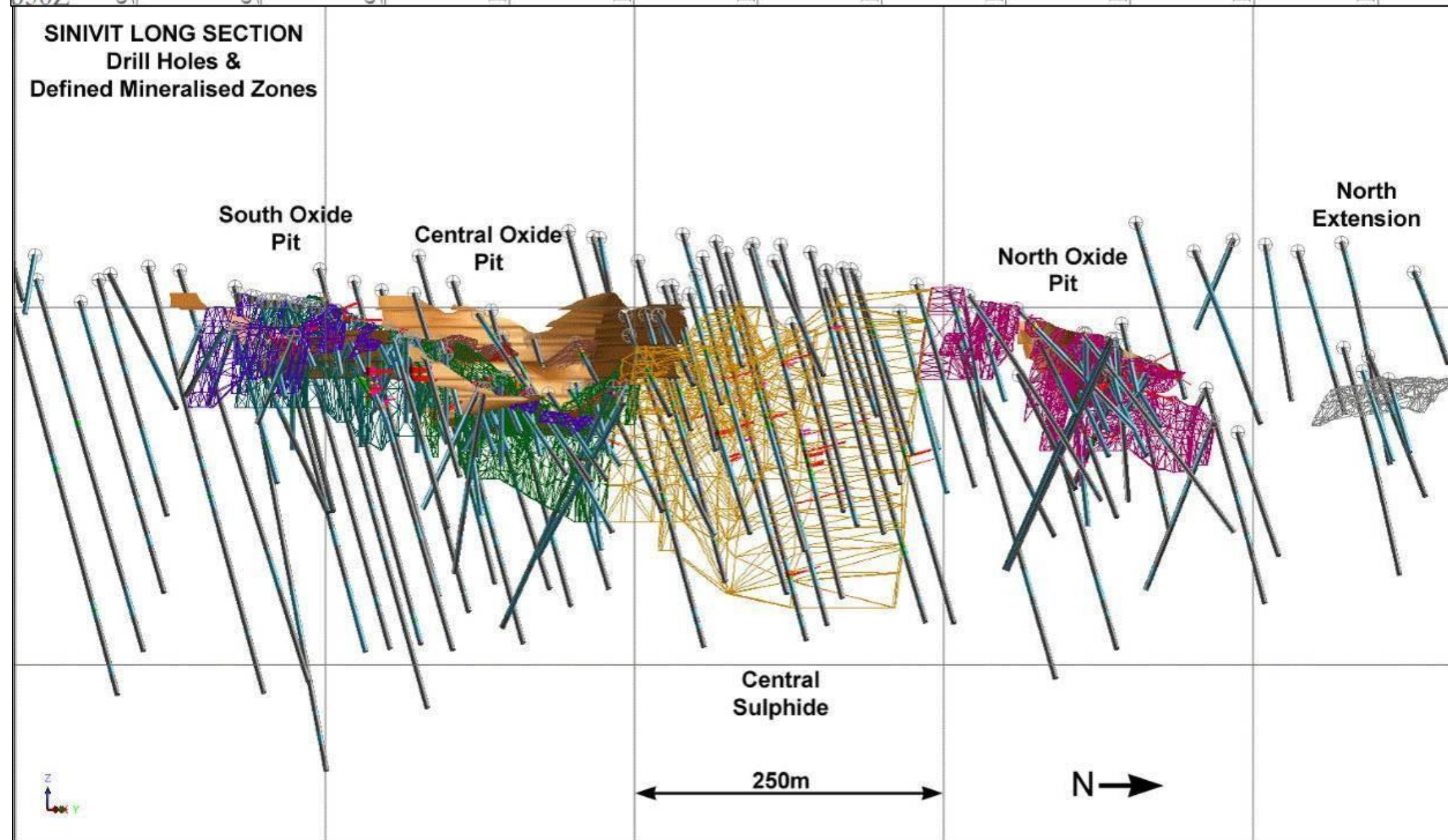
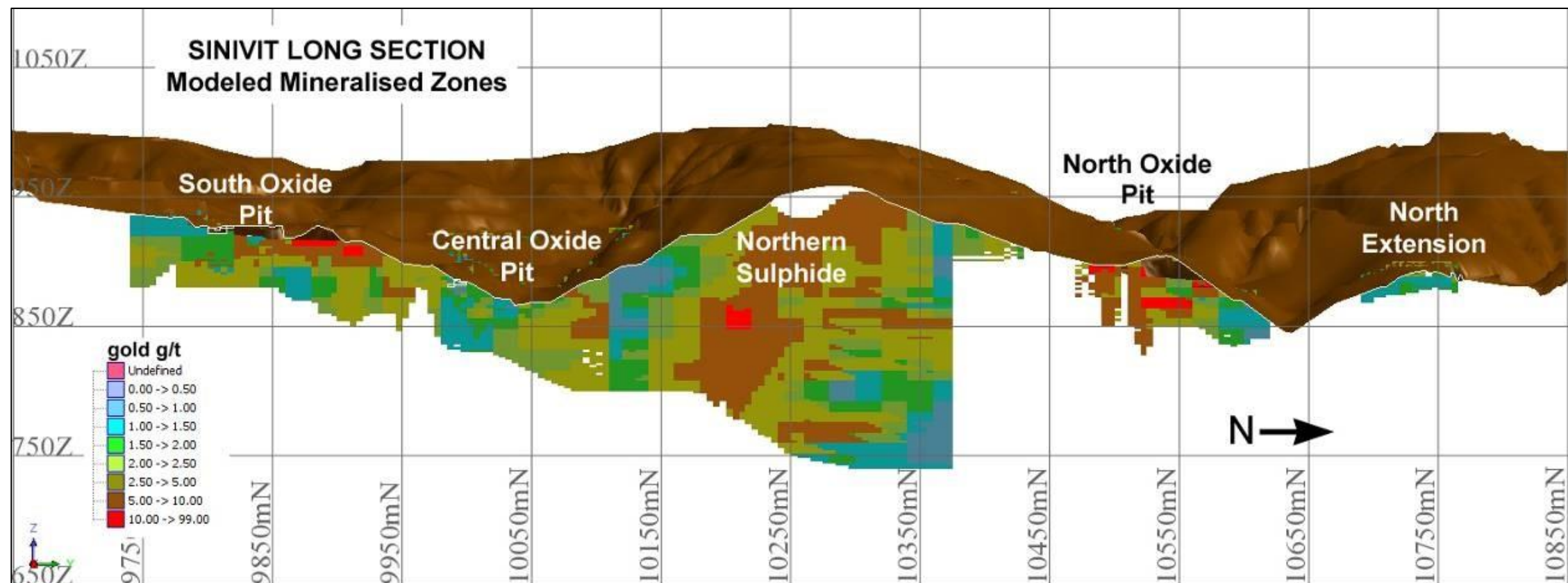
The former Sinivit operator sampled the vats with a Banka drill to obtain samples and get an indication of the amount of remaining gold. Metallurgical testing was carried out in 2010 by a third party to determine distribution and possible recovery of gold remaining in the vat leached ore and to determine a recovery method for tellurium.

A cursory sampling program for tellurium content consisted of samples from the top 1.5 m depth. Gold, tellurium and copper were assayed across a range of size fractions. Average tellurium assay results ranged from 76.0 ppm to 329.5 ppm. A composite sample of 50 kg consisting of 2.1 to 7.5 kg samples from thirteen of the vats was treated as follows: Leach sample size 125g, Grind 80% <38micrometers, Leach temperature of 70 degrees C, Leach reagent 75g/l H₂SO₄, Solid: liquid ratio of 25%:75%, Leach time of 4 hours. This resulted in tellurium recoveries in the 70-86% range and Leachate with 33-78 g/l Te and Significant Fe⁺², Al and Mn transfer into leachate.

Petrographic and SEM analyses (scanning electron microscopy) were also carried out in 2010 to define the gold and telluride mineralogy. Results showed tellurides of tetradymite and rickardite usually restricted to quartz, and gold-silver telluride (altaite) usually as inclusions in pyrite and chalcopyrite.

The testing indicated tellurium would require an acid leach and subsequent gold leaching would require a basic leach. There has been little metallurgical testing to determine the required process for optimum treatment of the unmined primary sulphide ore; however, it will likely require treatment via a specific primary ore floatation circuit. Initially the feed for the new sulphide circuit could be obtained from the ore remaining in the vats, with the vats then utilised as tailings dams.

New tailings storage facilities (TSF) would be required if the sulphide resource comes into production. Likely locations will have to be identified, however, single catchment creeks are likely sources for TSF, with dam construction buffered with waste material as an extended waste dump.



Thirty-eight diamond core drill holes (all from 1980s) have been located with assays for tellurium. Sixteen of these holes had some low to very high tellurium assay results associated with the potentially economic oxide and sulphide gold intercepts and their downhole intercepts are all listed sequentially below:

85WDD006 – **18.0m with 2.76 g/t gold + 260 ppm tellurium + 10.0 g/t silver + 69 ppm copper** (4.45m to 22.45m)

85WDD007 - **1.85m with 1.12 g/t gold + 2795 ppm tellurium + 29.7 g/t silver + 0.58% copper** (45.65m to 47.5m)

85WDD008 - **7.8m with 1.67 g/t gold +249 ppm tellurium + 2.5 g/t silver +96 ppm copper** (1.35m to 9.15m)

85WDD009 - **1.25m with 5.09 g/t gold + 426 ppm tellurium + 62 g/t silver + 0.26% copper** (59.25m to 60.5m)

85WDD011 - **5.85m with 0.45 g/t gold + 116 ppm tellurium + 1.7 g/t silver + 95 ppm copper** (17.65m to 23.5m)

85WDD014 - **5.9m with 8.78 g/t gold + 79 ppm tellurium + 23.4 g/t silver + 0.98% copper** (48.25m to 54.15m)

86WDD017 – **1.45m with 21.7 g/t gold + 1,550 ppm tellurium + 25 g/t silver + 0.52% copper** (82.75m to 84.2m)

86WDD020 - **8.7m with 4.76 g/t gold + 165 ppm tellurium + 3.7 g/t silver + 852ppm copper** (129.35m to 138.05m)

86WDD021 -**14.7m with 11.10 g/t gold + 1156 ppm tellurium +14.1 g/t silver +494ppm copper** (7.15m to 21.85m)

87WDD024 - **5.3m with 8.04 g/t gold + 863 ppm tellurium + 19.2 g/t silver +0.93% copper** (138.25m to 143.55m) **PLUS 5.75m with 15.3 g/t gold + 393 ppm tellurium + 10.9 silver+ 218 ppm copper** (13.5m to 19.25m)

87WDD040A - **4.2m with 12.50 g/t gold + 725 ppm tellurium + 12.5 g/t silver + 0.41% copper** (148.6m to 152.8m), **PLUS 13.5m with 8.56 g/t gold + 505 ppm tellurium + 9.9 g/t silver +0.30% copper** (164.55m to 178.05m), incl. **1.45m of 29.25g/t gold + 2,600 ppm tellurium +42.41 g/t silver + 2.6% copper**. from 164.55m to 166.0m and **10.95m of 6.62 g/t gold + 272 ppm tellurium + 2.82 g/t silver + 233 ppm copper**, from 167.1m to 178.05m

87WDD051 -**10.3m with 4.49 g/t gold + 367 ppm tellurium + 19.2 g/t silver + 0.15% copper** (253.9m to 264.2m)

87WDD065 - **5.1m with 3.97 g/t gold + 67 ppm tellurium + 5.4 g/t silver + 0.21% copper** (115.85m to 120.95m)

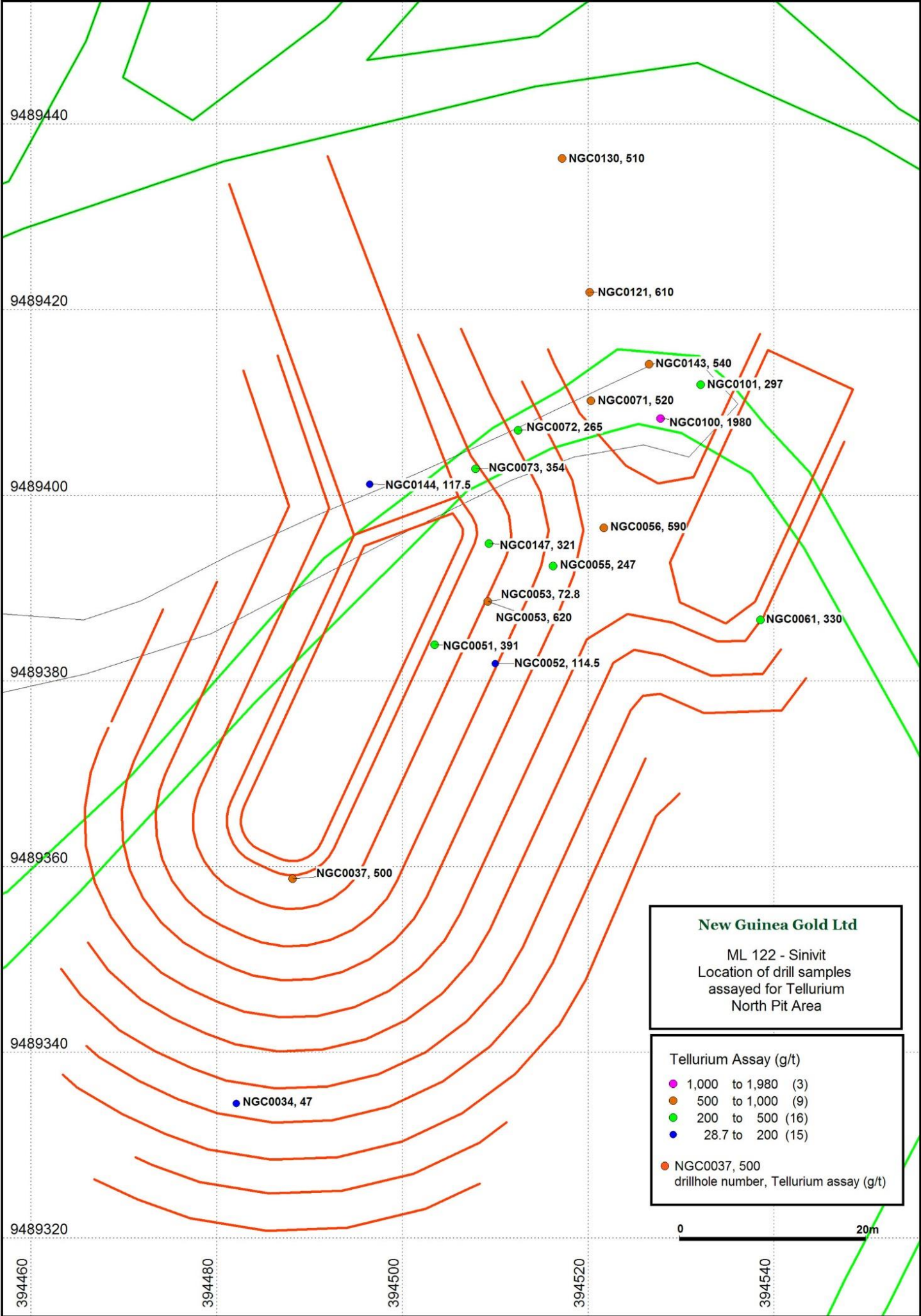
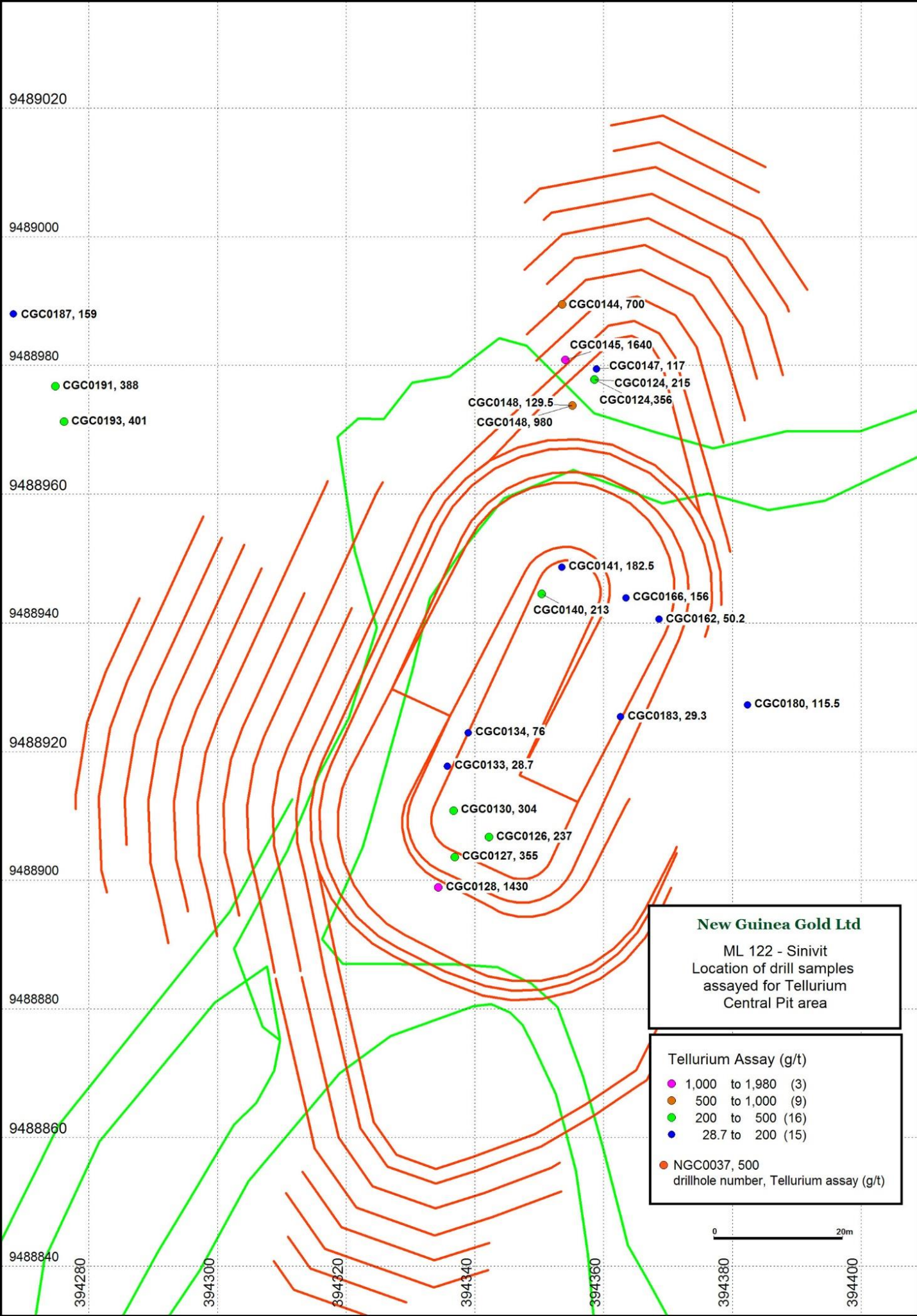
87WDD053 - **1.95m with 8.62 g/t gold + 645 ppm tellurium + 40.3 g/t silver + 6.38% copper** (37.25m to 39.2m)

87WDD058 -**10.55m with 5.60 g/t gold + 156 ppm tellurium + 44.2 g/t silver + 0.90% copper** (150.9m to 161.45m)

87WDD067 - **4.85m with 2.41 g/t gold + 25 ppm tellurium + 5.1 g/t silver + 634 ppm copper** (31.25m to 36.1m)

Forty-three RC drill hole composite samples from inside Northern and Central Oxide pits were re-assayed for tellurium and all assay results are tabulated on the right.

RC DRILLING TELLURIUM SAMPLING	Intercept Length (m)	Au (g/t)	Te (ppm)	Te Intercept (m*ppm)	Cu (ppm)	From (m)	To (m)	Northing	Easting	Hole ID
Northern Oxide Low grade	6.0	3.20	47	282	251	8	14	9489335	394482	NGC 34
	4.0	2.63	115	458	81	2	6	9489382	394510	NGC 52
	14.0	1.51	247	3,458	231	0	14	9489392	394516	NGC 55
	12.0	4.01	590	7,080	150	0	12	9489397	394522	NGC 56
	8.0	1.94	265	2,120	146	2	10	9489407	394512	NGC 72
	4.0	1.92	354	1,416	65	4	8	9489403	394508	NGC 73
	10.0	2.88	297	2,970	130	2	12	9489412	394532	NGC 101
Northern Oxide High Grade	4.0	31.65	500	2,000	4,095	18	22	9489359	394488	NGC 37
	6.0	29.18	391	2,346	314	18	24	9489384	394503	NGC 51
	6.0	27.72	73	437	123	10	16	9489389	394509	NGC 53
	2.0	16.15	620	1,240	2,360	16	18	9489389	394509	NGC 53
	6.0	5.16	330	1,980	308	6	12	9489387	394539	NGC 61
	2.0	24.30	520	1,040	217	2	4	9489410	394520	NGC 71
	6.0	27.68	1,980	11,880	352	2	8	9489408	394528	NGC 100
	8.0	16.43	610	4,880	240	0	8	9489422	394520	NGC 121
	2.0	34.20	510	1,020	8,120	12	14	9489436	394517	NGC 130
	4.0	12.93	540	2,160	199	0	4	9489414	394527	NGC 143
	8.0	17.85	118	940	532	22	30	9489401	394496	NGC 144
	8.0	10.34	321	2,568	267	0	8	9489395	394509	NGC 147
Central Oxide Low Grade	8.0	2.83	237	1,896	171	6	14	9488907	394342	CGC 126
	6.0	1.88	422	2,532	982	16	22	9488904	394337	CGC 127
	12.0	3.25	29	344	137	2	14	9488918	394336	CGC 133
	10.0	1.90	183	1,825	1,166	18	28	9488949	394354	CGC 141
	12.0	3.49	117	1,404	1,276	4	16	9488979	394359	CGC 147
	4.0	3.13	156	624	181	0	4	9488944	394363	CGC 166
	4.0	2.94	215	860	781	10	14	9488978	394359	CGC 124
	4.0	1.49	355	1,420	4,570	4	8	9488904	394337	CGC 127
	6.0	0.85	304	1,824	2,613	20	26	9488911	394337	CGC 130
	4.0	0.78	76	304	501	24	28	9488923	394339	CGC 134
	4.0	1.29	130	518	954	20	24	9488974	394355	CGC 148
	14.0	0.16	50	703	3,077	8	22	9488941	394369	CGC 162
	4.0	0.42	29	117	7,550	10	14	9488925	394363	CGC 183
	2.0	15.85	1,430	2,860	5,530	24	26	9488899	394334	CGC 128
Central Oxide High Grade	4.0	57.30	1,640	6,560	2,235	24	28	9488981	394354	CGC 145
	8.0	9.24	356	2,848	1,914	20	28	9488978	394359	CGC 124
	2.0	14.60	213	426	10,600	28	30	9488944	394350	CGC 140
	2.0	16.00	162	324	1,310	20	22	9488989	394354	CGC 144
	2.0	5.14	700	1,400	5,730	28	30	9488989	394354	CGC 144
	6.0	10.05	980	5,880	4,050	24	30	9488974	394355	CGC 148
	4.0	7.85	116	462	113	2	6	9488927	394382	CGC 180
	2.0	24.30	388	3,880	638	18	28	9488977	394275	CGC 191
Western Oxide Wall	10.0	4.65	401	4,010	704	16	26	9488971	394276	CGC 193
	2.0	7.04	159	318	10,000	26	28	9488988	394268	CGC 187



Information on Tellurium

Tellurium has an abundance of about 1 µg/kg in the Earth's crust (comparable to platinum) and is one of the rarest stable solid elements; it was first discovered in the 18th century in gold ore from the mines in Zlatna, near today's city of Sibiu, Romania. Tellurium is a chemical element with the symbol Te and an atomic number of 52. In refined form it is a brittle, mildly toxic, silver-white metalloid which looks similar to tin. Tellurium is chemically related to selenium and sulphur and is occasionally found in native form, as elemental crystals.

The production of cadmium telluride (CdTe) solar cells is the major end use for tellurium in the United States. Other uses are as an alloying additive in steel and copper to improve machining characteristics, in lead alloys to improve resistance to vibration and fatigue, in cast iron to help control the depth of chill and in malleable iron as a carbide stabilizer. It is used in the chemical industry as a vulcanizing agent and accelerator in the processing of rubber and as a component of catalysts for synthetic fibre production. Other uses included those in photoreceptor devices and as a pigment to produce various colours in glass and ceramics.

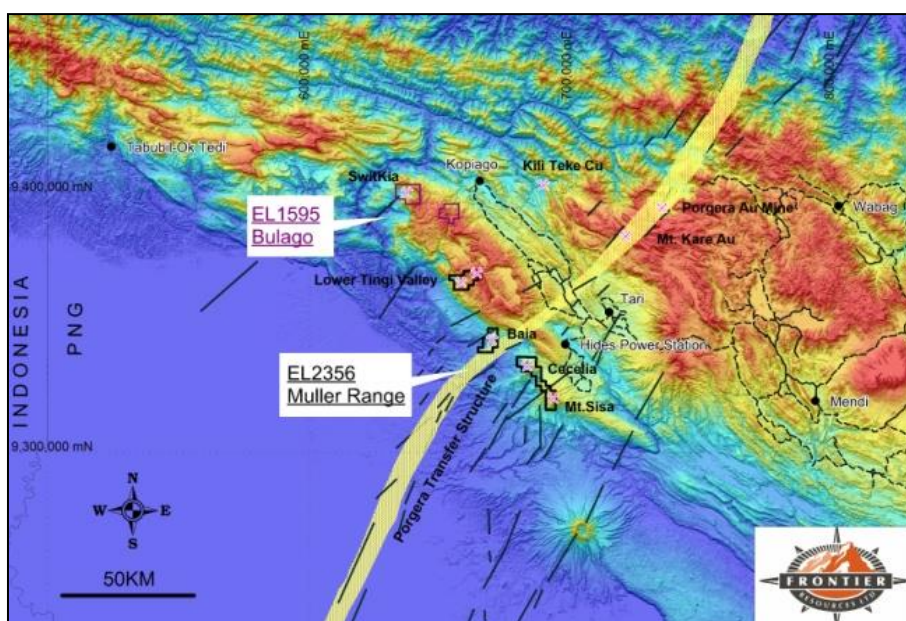
Global consumption estimates of tellurium by end use are: solar 40%, thermoelectric production 30%, metallurgy 15%, rubber applications 5% and other 10%. World production of tellurium in 2016 was estimated to be about 400 tons. The tellurium price peaked in 2008 at US\$350 per kilogram (US\$159 per pound), but continued its downward trend in 2016, decreasing from US\$77 per kilogram (US\$35 per pound) in 2015 to an estimated US\$34 per kilogram (US\$15 per pound).

MULLER EL

A 5-week exploration program was planned to establish and accomplish a variety of tasks, but was finished prematurely. The recon program lasted for 3 weeks, as only two 'lapuns' (older men) were available to assist, when we had planned on having 8 men (the young men were elsewhere or working for the LNG companies).

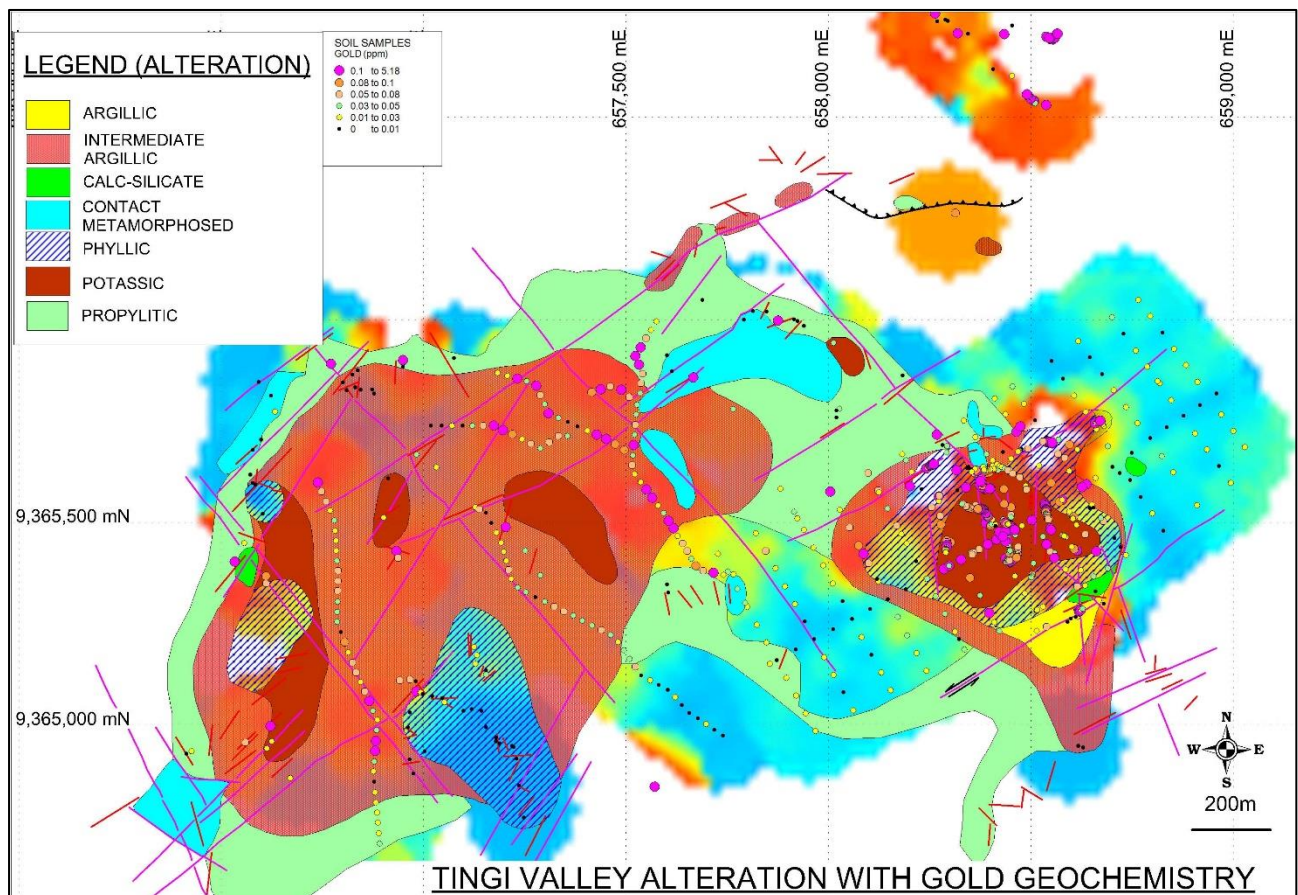
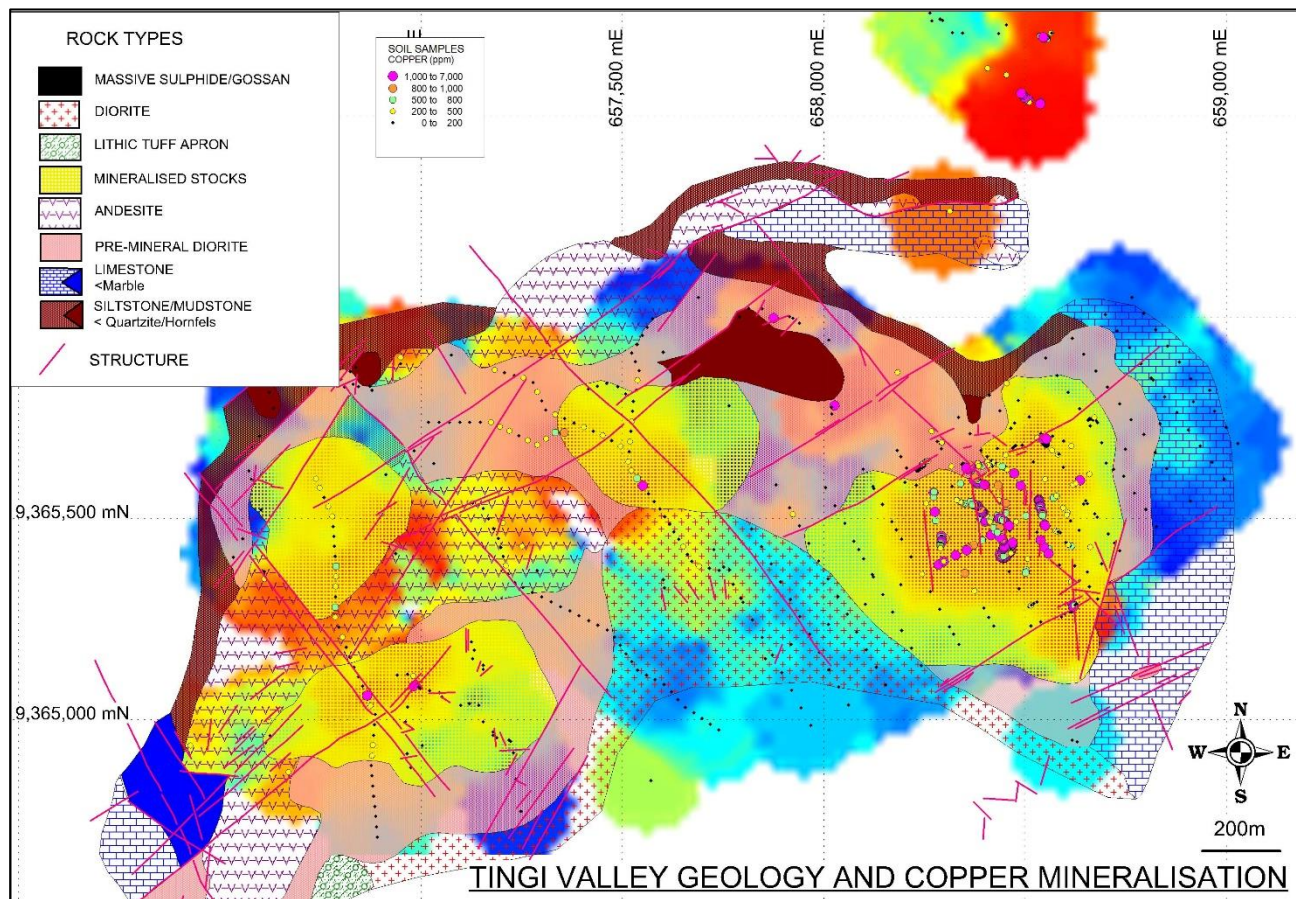
A total of 14 rock samples were collected for analysis. Frontier's geologist Ken Igara assisted with the initial recon for Kennecott at Tinga 25 years ago and expressed renewed excitement about (his perception) the high prospectivity of the region to host a porphyry copper deposit.

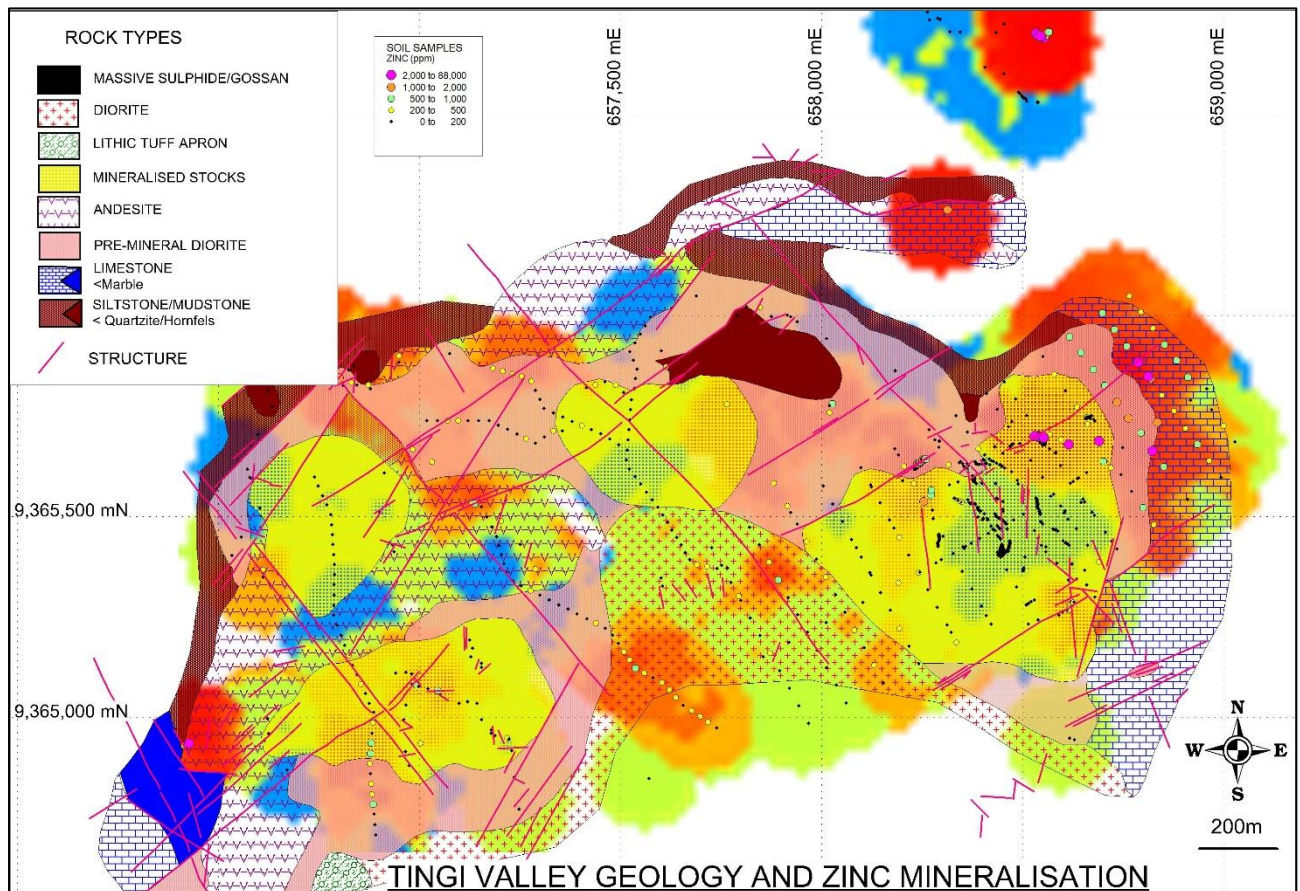
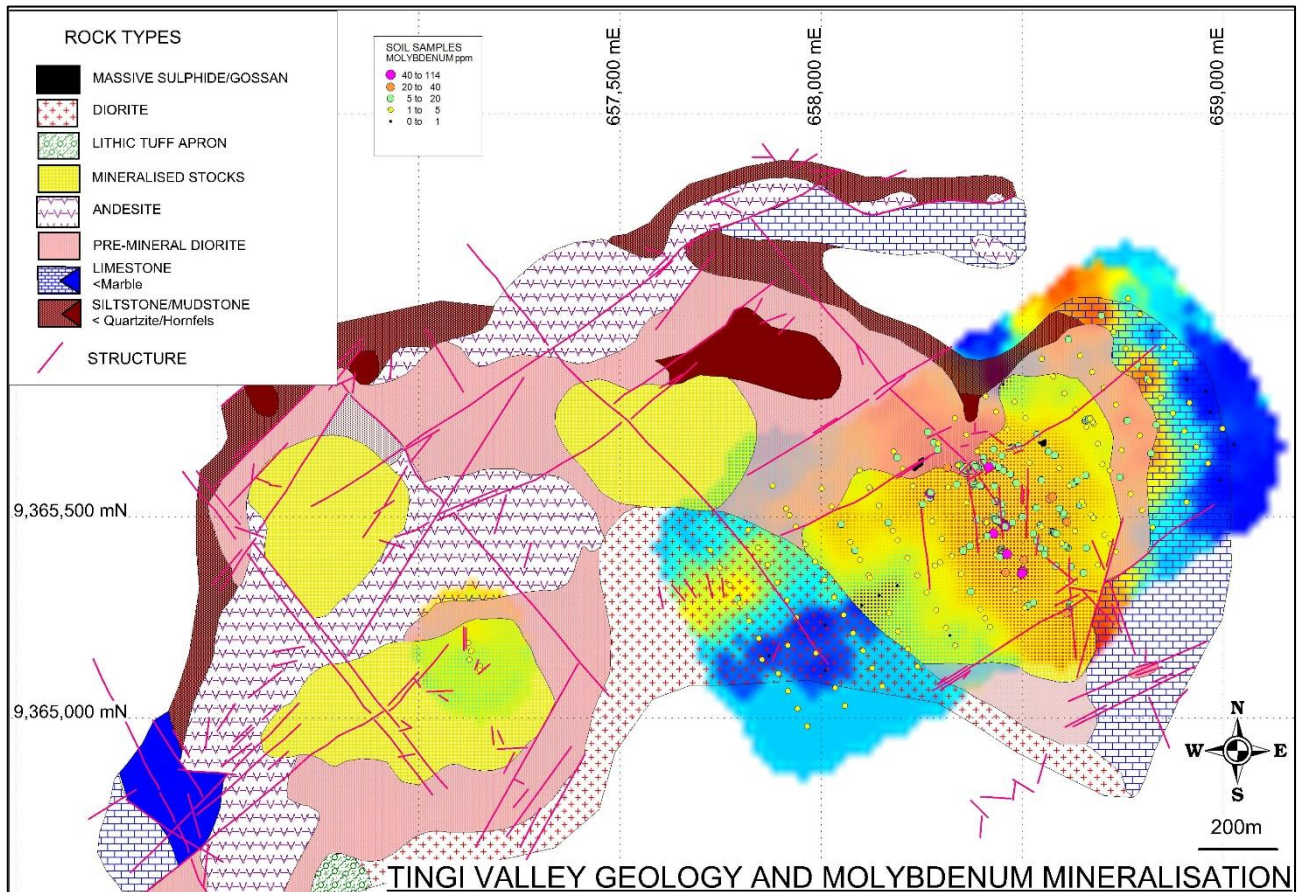
Frontier intends to meet with Tinga landowners in late April, to introduce Frontier and its work program, so a relationship can be established.



Exploration targets are:

- Porphyry style copper-gold mineralisation (in Angali and Andiria Creeks).
- Skarn gold —base metal on the intrusive margins with the limestone.
- Epithermal higher grade gold + silver mineralisation.
- Breccia hosted base metal stockwork veining (at Hogo Creek).
- NE-SW fault controlled massive epidote-pyrite, massive pyrite and massive magnetite-pyrite mineralisation (at Angali Creek, Hogo Creek and Magnetite Creek).





Exploration results (released to the ASX 3rd May 2016) at Tingi by previous explorers include:

- Strong gold in soil anomalies (including 90m of 2.14 g/t gold, to a high of 6.09 g/t gold), plus strong lead-zinc ridge soil anomalies (including 390m of 0.17% lead + 0.33% zinc) on the northern half of the main target, reflecting stratabound base metal skarn mineralisation along the base of the Darai Limestone. The tropical setting may have leached copper from the surficial soils and rocks and provided low copper assay results.
- A 250m x 200m soil-rock chip anomaly (>300 ppm copper and >0.1 g/t gold) was delineated coincident with phyllic-altered diorite.
- Gold assays from float rock include 30 g/t gold, 12 g/t gold and 4.9 g/t gold.
- Outcrop rock grab samples include 1.1g/t gold + 0.26% copper + 0.29% lead + 8.8% zinc and 3.72g/t gold + 1.55% zinc + 0.53 g/t lead.
- Pyrite altered quartzite outcrops had assays to 0.97 g/t gold + 58 g/t silver + 0.24% copper, possibly represents low sulphidation epithermal quartz-sulphide gold + copper mineralisation that formed marginal to the porphyry copper-gold intrusions.
- Channel sampling along strike of Jerry's skarn (6m thick x 30m long + an additional 50m in gossan outcrop to the southwest) returned an average for 20 non-continuous outcrop channel samples of 1.18g/t gold. A total of 15 x 2m channel samples were taken with best results of 2m continuous chip sampling showing 28m of 0.78 g/t gold including 2m of 4.36g/t gold and 2m of 2.58g/t gold.
- 10m of polymetallic massive sulphide assayed 3.3 g/t gold + 0.12% copper + 0.8% lead+ 1.9% zinc, within potassically and phyllicly altered diorite, representing a feeder for the base metal skarn mineralisation.
- 24m zone of andesite porphyry 0.085% copper with up to 10% pyrite + minor chalcocite.
- A 3m channel sample of brecciated massive sulphide magnetite skarn at the andesite porphyry / Darai Limestone contact assayed 1.17 g/t gold + 33 g/t silver + 0.16% copper + 1.80% lead + 3.50% zinc.

CORPORATE

Further to its announcement of 23 December 2016 Frontier settled a total of \$200,000 of consultant and contractor fees by way of issuing 6,666,667 shares at a conversion price of \$0.03 per share (**Conversion Issue**). The Conversion Issue represents between six and twelve months of professional fees including \$120,000 (or 32 hours) of helicopter service in Papua New Guinea to be utilised in the mobilisation for the Bulago high-grade gold and porphyry copper-gold drilling program that has commenced.

The Company has also issued a total of 2 million incentive options (as approved by shareholders at the 2016 Annual General Meeting) at an exercise price of \$0.034, representing 130% of the previous 5-day VWAP pursuant to the Frontier Resources Incentive Options Plan (**Plan**). The Directors of Frontier further advised that 2.8 million incentive options exercisable at 3 cents on or before 30 December 2019 have been granted to employees in Papua New Guinea and Australia pursuant to the Plan.

Managing Director /Chairman Peter McNeil M.Sc., said:

The purpose of the employee and director options is to incentivise the individuals to continue to work diligently toward the success of the Company and also to provide a possible reward for their excellent services provided historically. All consultants have accepted large daily pay rate cuts for the last 3 years (an 80% cut for the drillers) and are required to stay in the field under very basic conditions for much longer periods of time.

Historically, Frontier worked on a 6-week field duration for technicians and a 4-week duration for geologists, but this has become 'as needed' due to the high personnel field move/demove plus airline travel costs and is normally about 10 weeks for everyone now (except me). This is very admirable conduct on behalf of our consultants that deserves rewarding, because the field conditions and food are very mediocre and / or tedious and it places strain on their families being away for so long.

Frontier's present Non-Executive Directors have worked in that role for about 28 months, for low Director fees (by industry standards) and have never received any incentive options. I hold 500,000 historic options exercisable at \$0.22 and 500,000 exercisable at \$1.22, hurdles that will be between very difficult to impossible to achieve, before they expire near the end of 2017.

If exercised, the employee and director options would deliver a total of \$84,000 and \$144,000, respectively, in funds for Frontier to use toward exploration and corporate costs.

Frontier placed a total of 5,794,947 new fully paid shares in the Company to raise \$173,848 (before costs), representing the shortfall from its recent Entitlement offer together with an additional placement of shares. The new shares were issued at 3¢ per share, being the same issue price as under the Entitlement Offer. This placement increases the total funds raised from the Entitlement Offer that closed on 16 January 2017 to over \$500,000.

Commenting on the placement, Frontier's Managing Director, Mr Peter McNeil said:

The Board of Frontier is very pleased with the support shown by the Company's shareholders and some new investors in a difficult market for junior exploration companies.

Funds raised from this placement issue will also be used to initiate exploration at the along strike and nearby highly porphyry copper -gold prospective Muller EL as soon as possible, in addition. Senior Frontier personnel will immediately commence the groundwork required to gain access into the Tingi region of the Muller EL and establish fly camps for possible Joint Ventures with Frontier. A detailed Summary Report regarding the Muller EL was released to the ASX on And interested readers are referred it for additional information.

Frontier established a sale facility for holders of unmarketable parcels for shareholders with holdings valued at less than A\$500 (**Sale Facility**), to enables eligible shareholders to sell their Frontier Resources shares without incurring any brokerage or handling costs. This initiative will substantially reduce administration costs incurred by Frontier Resources.

The Sale Facility is open to shareholders on the Frontier Resources register who hold less than A\$500 worth of shares. Unless eligible shareholders opt-out of participation in the Sale Facility, these shareholders will have their shares sold and the proceeds remitted to them free from brokerage and handling fees.

As at 5:00pm (WST) 7 April 2017 (**Record Date**), there are 2,894 shareholders who would be eligible to participate in the Sale Facility, representing 86.67% of total shareholders. The eligible shareholders hold 3,394,345 ordinary shares in Frontier Resources, representing 4.82% of total capital.

Shareholders will have the ability to opt-out of participating in the Sale Facility and retain their shareholding. For shareholders who participate in the Sale Facility, the shares will be sold at the authorised price being the price per share of Frontier securities equal to the simple average of the last sale prices of Frontier on ASX for each of the ten trading days immediately preceding the date of any offer received by the Company pursuant to Clause 3.5 of the Constitution.

A summary of the key dates in respect of the Sale Facility is as follows:

Event	Date
Record Date to establish holders of Small Shareholdings	5:00pm (WST) 7 April 2017
Small Shareholding Sale Facility Announcement to ASX	10 April 2017
Letter to shareholders with holdings valued at less than A\$500	13 April 2017
Sale Facility Closing Date	26 May 2017

For further information contact Computershare on 1800 019 953 (in Australia) or +61 3 9415 4169 (outside Australia).

Rights Issue Prospectus 2017

Chairman's Letter

Dear Shareholder,

Frontier Resources Ltd (ASX: FNT) is focussed on mineral exploration in Papua New Guinea (PNG) and its 100% interests in the Bulago and Muller Exploration Licences and 90% interests in the Gazelle EL Application 2515 (including the former Sinivit gold Mine) and the Sewatupwa and Lake Lavu EL applications. Exploration and drilling is strongly warranted at all areas.

Frontier is offering all Shareholders the opportunity to participate in this 1 for 3 non-renounceable, pro-rata rights issue, to raise approximately \$1,056,776 (before costs). As Chairman / Managing Director and Chief Geologist of Frontier, I recommend the issue.

Capital raised will enable Frontier Resources to:

- 1. Show financial viability to the PNG Minister for Mining to give him confidence to grant the Gazelle EL Application -2515 (former Sinivit epithermal gold Mine) to the Company and then to undertake exploration and commence a Feasibility Study (when/if the EL is granted).**
- 2. Undertake first ever drill assessment of the Tinga porphyry copper –gold project (EL 2356 - Muller).**
- 3. Continue exploration of the Bulago high-grade gold and porphyry copper –gold project (EL 1595).**
- 4. Cover Working Capital, New Projects, Administration Costs and Expenses of the Offer.**

Eligible Shareholders will have the opportunity under the Offer to subscribe for 1 New Share for every 3 Shares held on the Record Date, at the issue price of \$0.045 per New Share (equal to a 6.91% discount to the VWAP of the last 5 days on which shares were traded prior to the date of this Prospectus of \$0.048).

Shareholders wishing to subscribe for Shares in excess of their Entitlements are invited to subscribe for any Shortfall on a 'first in - first served basis'.

The details of the Offer are set out in this Prospectus, together with your personalised Entitlement and Acceptance Form. On behalf of the Directors, I thank all Shareholders for their continuing support of Frontier Resources Ltd.

Timetable to the offer

TIMETABLE AND IMPORTANT DATES

Lodgement date	12 April 2017
Notice to Security Holders containing information required by Appendix 3B	18 April 2017
Ex-date – Shares trade ex-Entitlement	20 April 2017
Record date to determine Entitlement	21 April 2017
Prospectus with Entitlement and Acceptance Form dispatched	27 April 2017
Offer opens for receipt of Applications	27 April 2017
Closing date for acceptances *	18 May 2017
Deferred settlement trading commences	19 May 2017
Notify ASX of under-subscriptions	23 May 2017
Issue of New Shares	25 May 2017
Deferred settlement trading ends	25 May 2017
Dispatch of shareholding statements	26 May 2017
Normal trading of New Shares expected to commence	26 May 2017

*** Note:**

The Directors may extend the Closing Date by giving at least 3 Business Days' notice to ASX prior to the Closing Date, subject to such date being no later than 3 months after the date of this Prospectus. As such the date the New Shares are expected to commence trading on ASX may vary.

Key offer terms and capital structure

Shares currently on issue:	70,451,737
Directors Options currently on issue:	2,500,000
Other Options currently on issue:	2,800,000
New Shares offered under this Prospectus at \$0.045 per New Share:	23,483,912
Amount raised under this Prospectus (before costs):	\$1,056,776

RELEASES SUBMITTED TO THE ASX DURING THE QUARTER INCLUDED:

12 th April 2017	Rights Issue Prospectus Issued to Raise Capital for Exploration at the Gazelle ELA (Former Sinivit Gold Mine)
10 th April 2017	Gazelle ELA 2515 Now Awaiting Ministerial Decision to Grant
10 th April 2017	Small Shareholding Sale Facility Established
10 th April 2017	Swit Kai – Central Lower Zone Drill Core Assays Results
30 th March 2017	Muller Reconnaissance Program Completed
24 th March 2017	Drilling now Targeting Porphyry Copper - Gold at Bulago
20 th March 2017	Half-Year Financial Report Ended 31 December 2016
2 nd March 2017	Positive Wardens Court Hearing Completed for ELA 2515 – Gazelle/Sinivit
24 th February 2017	Muller Mobilisation Underway for First Exploration Program
23 rd February 2017	Bulago Mobilisation Underway and Drilling to Commence Saturday 25 th
17 th February 2017	Placement of Shortfall Shares and Update
10 th February 2017	Appendix 3B
31 st January 2017	Technical Report – Quarter Ended 31 December 2016 and Appendix 5B

For additional information please visit our website at www.frontierresources.com.au

FRONTIER RESOURCES LTD



P.A. McNeil, M.Sc., MAIG
Chairman and Managing Director

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 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 2012 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.

Frontier Resources Ltd Exploration Licence Information						
	Licence No.	Date From	Date To	Ownership	Area (SQ KM)	Lat. Sub Blocks
Bulago River*	EL 1595	7/07/2014	6/7/2016	100% Frontier Gold PNG Ltd	100	30
Muller Range	EL 2356	31/12/2015	30/12/2017	100% Frontier Copper PNG Ltd	330	99
Sewatupwa River	ELA 2476	Application only		90% Frontier Copper PNG Ltd	436	131
Lake Lavu	ELA 2477	Application only		90% Frontier Copper PNG Ltd	839	252
Gazelle	ELA ?	Application only		90% Frontier Copper PNG Ltd	722	217
* Under renewal - Hearing completed					2,427	SQ KM
NB: The Papua New Guinea Mining Act of 1992 stipulates that ELs are granted for renewable 2 year Terms (subject to Work and Financial 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
SECTION 1 -- SAMPLING TECHNIQUES AND DATA

SAMPLING TECHNIQUES

Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.

The Exploration Manager is generally onsite for the entire Exploration program and if he is not onsite there is always a Senior Geologist onsite or the Managing Director onsite to supervise. The staff are professional with individual decades of experience and they always attempt to conduct the programs according to well established exploration best practice /norms. Additional information is provided below.

DRILLING TECHNIQUES

Core was drilled HQTT (triple tube) by a CSD500 'man-portable' drill rig and was removed from the inner tube into 1m long core trays, being broken to fit as appropriate.

MEASURES TAKEN TO MAXIMISE SAMPLE RECOVERY AND ENSURE REPRESENTATIVE NATURE OF THE SAMPLES

Downhole sample recovery was maximised by the drillers utilising appropriate downhole drilling consumables at the appropriate times to 'consolidate' or hold the rock together, combined with the fact that we utilise our own rig and drillers who are not paid meterage (speed) bonuses and are therefore more careful with core recovery than normal commercial drillers (working on meterage bonuses).

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.

Recovery is normally excellent at >95% overall. Where there is core loss, there is no apparent relationship between recovery and grade. No sample bias appears to have occurred due to loss of fine material when this did occur. We do not get a gain in material.

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

The core has been geologically and geotechnically logged in sufficient detail to support appropriate Mineral Resource estimation, mining and metallurgical studies

Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.

The core was preliminarily logged and marked up for sampling (normally on a 1m or 2m basis, depending on the Exploration Managers estimate of the intervals' mineralisation potential), measured for recovery and photographed. After being cut and sampled the remaining ¾ core was geologically and geotechnically logged in detail.

The total length and percentage of the relevant intersections logged

100% of the core was logged, but not necessarily sampled unless it was noted to be megascopically mineralised / veined or brecciated by the Exploration Manager or Site Supervisor.

SUB-SAMPLING TECHNIQUES AND SAMPLE PREPARATION

If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.

Core samples were obtained from the drilling and utilised, so this is not applicable. Outcrop rock samples were collected from the surface and were wet or dry depending on the prevailing weather conditions.

For all sample types, the nature, quality and appropriateness of the sample preparation technique.

The whole core was appropriately diamond saw cut to quarter core to ensure representativeness relative to any structural /mineralisation orientations. The quarter core was then put into consecutively numbered calico bags for analysis.

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.

Quarter core was cut to ensure representativeness relative to any structural /mineralisation orientations. No second quarter core sample analyses have been undertaken, but could be if deemed appropriate due to high grade samples that could induce a 'nugget' effect.

Whether sample sizes are appropriate to the grain size of the material being sampled.

The sample size is appropriate for the exploratory phase of work and allows residual samples to be available for use for comparative assaying and later metallurgical testing. Additional assaying is normally undertaken on the same pulp of very high grade samples to ensure their quoted assay accuracy prior to release.

QUALITY OF ASSAY DATA AND LABORATORY TESTS

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.

All analyses were appropriately requested relative to the target type and expected assay ranges and were undertaken by SGS Australia – Townsville, Australia.

Sample Preparation for core and rocks was by method PRP88, that involved drying, crushing to 6 mm and pulverizing to 75µm on a 3.0kg or less sample weight.

Gold was determined by fire assay code FAA505, using lead collection technique with a 50-gram sample charge weight. Detection limits are 0.01– 10,000 g/t

Base metals were determined by a 4 acid ICP-OES finish, code DIG40Q. The sample is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible. With most silicate based material, solubility is to all intents and purposes complete, however, elements such as Cr, Sn, W, Zr and in some cases Ba, may prove difficult to bring into solution. Some minerals may dissolve, or partly dissolve and precipitate the element of interest. Examples are silver, lead in the presence of sulphur/sulphate, barium in the presence of sulphur/sulphate, Sn, Zr, Ta, Nb through hydrolysis

The solution from the DIG40Q digest is presented to an ICP-OES for the quantification of the elements of interest. Code: ICP40Q, with detection limits of: Ag 0.5 – 200 ppm, Cu 5 – 10000 ppm, Ni 5 – 10000 ppm, Te 10 – 10000 ppm, Al 100 – 400000 ppm, Fe 100 – 1000000 ppm, P 20 – 100000 ppm, Th 10 – 10000 ppm, As 3 – 10000 ppm, Hf 20 – 10000 ppm, Pb 5 – 5000 ppm, Ti 10 – 20000 ppm,

Ba 5 – 10000 ppm, K 100 – 200000 ppm, Rb 5 – 10000 ppm, U 10 – 10000 ppm, Be 0.5 – 5000 ppm, La 0.5 – 10000 ppm, S 20 – 50000 ppm, V 1 – 10000 ppm, Bi 5 – 10000 ppm, Li 1 – 10000 ppm, Sb 2 – 5000 ppm, W 10 – 10000 ppm, Ca 50 – 400000 ppm, Mg 20 – 1000000 ppm, Sc 0.5 – 500 ppm, Y 0.5 – 5000 ppm, Cd 1 – 5000 ppm, Mn 5 – 10000 ppm, Se 10 – 10000 ppm, Zn 5 – 10000 ppm, Ce 10 – 10000 ppm, Mo 5 – 10000 ppm, Sn 2 – 1000 ppm, Zr 1 – 10000 ppm, Co 1 – 10000 ppm, Na 50 – 200000 ppm, Sr 1 – 10000 ppm, Cr 10 – 20000 ppm, Nb 10 – 10000 ppm, Ta 20 – 10000 ppm.

If the sample contained more of the element than the method was capable of determining it was re-run using and 'Over-Range' method 4 acid – ore grade, assay grade method code DIG41Q. The sample weighing 0.2g (df=500) is digested with nitric, hydrochloric, hydrofluoric and perchloric acids to effect as near to total solubility of the sample as possible.

Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.

Acceptable levels of accuracy and precision were established. Industry standard reference samples were introduced into the sample sequence every 10 samples as a check on the laboratory. No blanks or duplicates were introduced, although generally samples with significant assay results were re-analysed using the same sample pulp and no external laboratory checks were undertaken.

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.

These machines were not utilised by Frontier and the laboratory is accredited and has its own internal procedures and parameters to ensure representative readings are made and reported.

VERIFICATION OF SAMPLING AND ASSAYING

The verification of significant intersections by either independent or alternative company personnel.

Two geologists were onsite at all times and verified the intercepts drilled. The Managing Director, if not onsite, verified intersections by inspecting all core via photography.

The use of twinned holes

No holes were twinned as this is unnecessary at this stage of exploration drilling and metallurgical samples are not yet required.

Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.

The Exploration Manager manually entered the primary data into his laptop in the field and later transferred it to the Managing Directors laptop via USB memory stick. Assay data is provided by the laboratory as a CSV file that the Managing Director manipulated to produce weighted average assay results depending on specific cut-off grades and intervals. This data is stored on the Managing Director's laptop as the primary database. Physical hardcopy data and representative core and rock specimens are stored at the Frontier office in Perth, WA with backup copies onsite at the project area.

Any adjustments to assay data.

No adjustments were made to any assay data, however, where available the assay results were averaged and the average result was reported. All gold assay results are reported herein. ICP assaying produces 1 result per element unless it is over-range, in which case an over-range method was utilised to obtain the actual assay value, as noted above.

ACCURACY + QUALITY OF SURVEYS USED TO LOCATE DRILL HOLES (COLLAR + DOWN-HOLE SURVEYS), TRENCHES, MINE WORKINGS AND OTHER LOCATIONS USED IN MINERAL RESOURCE ESTIMATION

No Mineral Resource has been estimated.

Specification of the grid system used.

Map datum is AGD 066 and PNG is covered by 1:100,000 topographic plans that have 40m contour intervals. DTM plans from SRTM or aeromagnetics have 10m contour intervals.

Quality and adequacy of topographic control

Topographic control is determined by handheld GPS and/or tape and compass surveying and is adequate at this stage of exploration.

DATA SPACING AND DISTRIBUTION

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.

No Mineral Resource has been estimated.

Whether sample compositing has been applied.

No sample compositing was undertaken

ORIENTATION OF DATA IN RELATION TO GEOLOGICAL STRUCTURE

Whether the orientation of sampling achieves unbiased sampling of possible structures to the extent this is known, considering the deposit type.

The sampling conducted achieves unbiased sampling of possible structures to the extent this is known and /or possible relative to physical constraints on the location of the drill rig and / or the orientation of the outcrop sampled relative to its strike and dip. The diagrams and plans contained show relatively what the angle of incidence is relative to the structure being drilled.

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.

The orientation of the holes is noted above and the orientation of the outcrops are noted as possible in the body of the text. Where possible the true widths have been estimated, and indicated in the text. There is no attempt to introduce sampling bias, but in very steep and difficult areas it is often difficult/impossible to be able to drill in the best location and therefore you must drill from where you can. All reasonable attempts are made to drill in the best location possible, however, drilling from one pad is much more economical than drilling for separate pads and as such it is routinely undertaken in that manner producing vertical and /or horizontal fans of drill holes.

SAMPLE SECURITY

The measures taken to ensure sample security

Samples were retained in the custody of company staff onsite until despatched by helicopter for freighting via an accredited freight handler

or they were in some cases hand carried (checked airline bagged) by the Managing Director to Australia. Samples were collected from the freight agent by the laboratory and taken to their facility for analysis or delivered to the laboratory by the Managing Director.

AUDITS OR REVIEWS

Industry standard practices are used and no audits or reviews of sampling techniques and data have been undertaken to date.

SECTION 2 -- REPORTING OF EXPLORATION RESULTS

TENURE

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.

Exploration Licences are subject to the Papua New Guinea Mining Act of 1992. Tenure is secure if the EL holder complies with the agreed work and expenditure programs, but can be insecure if the region is deemed 'in the National Interest' for some reason. Terms are 'infinitely' renewable 2 year periods and are subject to a Wardens Court Hearing to ascertain the landowners attitude toward the exploration.

EL 1595 is currently under renewal and while it is past its renewal date, it is technically active until / if NOT renewed by the Minister. The Wardens Court Hearing was positive and there is no reason known to suggest that this outcome would occur. Full details of Frontiers tenements are tabulated below.

EXPLORATION DONE BY OTHERS

Exploration completed by previous explorers has been systematically and comprehensively documented in previous releases and Quarterly Reports to the ASX. Any historic exploration quoted herein is noted to be such.

GEOLOGY

Deposit type, geological setting and style of mineralisation.

Targets on all properties are intrusive and epithermal related gold, plus porphyry copper-gold - molybdenum.

DRILL HOLE INFORMATION

A summary of all information material to the understanding of the exploration results

DATA AGGREGATION METHODS

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

All assays are tabulated herein so the reader can visually see what each assay result is within each reported intercept. Higher grade intercepts within the weighted assay average tabulated results are all noted.

The assumptions used for any reporting of metal equivalent values should be clearly stated.

No metal equivalent values reported.

RELATIONSHIP BETWEEN MINERALISATION WIDTHS and INTERCEPT LENGTHS

If the geometry of the mineralisation with respect to 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.

The diagrams and plans contained herein show relatively what the angle of incidence is to the structure being drilled. The orientation of the holes and the outcrops are noted as possible in the body of the text. Intercepts are noted as downhole intercept but where possible the true widths have been estimated, and also indicated.

BALANCED REPORTING - 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.

All Exploration assay results are comprehensively reported.

OTHER SUBSTANTIVE EXPLORATION DATA

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

All Exploration work undertaken is comprehensively reported.

FURTHER WORK

The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).

Future work is discussed in the text, as it has been planned to date. Future work is potentially subject to modification if interpretations are modified or exploration objectives change.

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

Plans and sections are included as possible, that highlight the areas of possible extensions to mineralisation and show the main geological interpretations. Future drilling areas are shown, as reasonable and possible, or the areas described in the text of the document.

Section 3 -- Estimation and Reporting of Mineral Resources

Mining Associates Pty Ltd prepared an Independent Technical Report (43-101) in October 2011 for NGG on the Indicated Resources on the Sinivit Gold Project, that covered an estimate of the mineral resources remaining at Sinivit Mine and an appraisal of its exploration potential.

In addition, in April 2013, Mining Associates prepared a 43-101 report estimating an Indicated Resource at the Kavursuki gold Deposit (an unmined resource adjoining and to the north the Sinivit pits).

The 43-101 reports relating to the Sinivit and Kavursuki Resources can be obtained from the Canadian regulator SEDAR website, but have also been posted to the Reports section of the Frontier website.

DATABASE INTEGRITY

Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.

Original assay data was received via CSV files that was compiled into a database. This data was manually validated by cross checking (auditing) of assay and geological results.

SITE VISITS

Comment on any site visits undertaken by the Competent Person and the outcome of those visits.

The mineralisation was discovered by Esso in the early 1980's, who I started my career with in PNG in 1985. Sinivit was later drilled out by City Resources, for whom I supervised their Wapolu gold Project in Milne Bay. I was a founding Director, Former President and Exploration Manager for NGG from 1996 until 2009, when I resigned to concentrate solely on Frontier Resources. I last visited the site, including the Kavursuki vein system, in 2009 when mining was underway at Sinivit.

Mr Ian Taylor (employed by Mining Associates Limited of Brisbane, Australia) visited the site six times totalling approximately six weeks in 2010/2011, as part of production and data management support for the Sinivit Mine. He conducted a summary review of geology and resource models and estimated the Resources noted herein.

GEOLOGICAL INTERPRETATION

Confidence in the geological interpretation of the mineral deposit.

Open pit mining has proved the viability of the existing interpretation, so confidence is high.

Nature of the data used and of any assumptions made.

Since 2005, 195 diamond holes for a total of 24,142 m have been drilled at the project. Since mining commenced in 2007, 750 RC grade control holes were drilled for 20,948 m and trenching was widely used to assess the various veins within the Sinivit Project.

The Kavursuki Project Inferred resource of 613kt at 2.3g/t for 44,500 ounces of gold was based on 30 diamond holes (2,170m).

The effect, if any, of alternative interpretations on Mineral Resource estimation.

No alternative interpretations on Mineral Resource estimation were required because open pit mining had proved the viability of the existing interpretation and modelling.

The use of geology in guiding and controlling Mineral Resource estimation.

Geology was the primary guide in estimating the Mineral Resource. It was used to produce the sections for interpretation and modelling /wireframing.

The factors affecting continuity both of grade and geology.

The mineralisation at Sinivit is considered to be an epithermal style vein system with both low and high sulphidation alteration and mineralogy styles. Low sulphidation gold-telluride mineralisation was deposited within fractured silicified host rocks that are more typical of a high sulphidation system.

The Sinivit gold project consists of the Nengmutka vein system, which is hosted by the Nengmutka Volcanics, a flat-lying, epiclastic sequence of volcanic sandstone and conglomerate.

The Wild Dog structure has been traced at surface over a strike length of about 3 km, of which a central 900m makes up the strike length of the Sinivit resource area (Sinivit Gold Deposit).

The mineralisation at Sinivit occurs in multi-phase steeply dipping hydrothermal quartz tension veins which cross cut the more moderately dipping northwest trending silicified zones. Mineralisation is best developed near local cross structures. Later mineralisation fills open fractures and cavities in the quartz veins as dark sulphide stringers comprising copper sulphides (chalcopyrite with minor bornite, chalcocite and tennantite) with local occurrences of a wide variety of Cu-Bi-Pb-Ag sulphide, telluride and selenide minerals. Gold generally occurs as Au-Ag telluride minerals, and native 'mustard' gold occurs as a weathering product of these tellurides.

Intense tropical weathering and leaching has developed a surface profile depleted in copper and silver minerals. The Sinivit operation mined oxide material in three pits (northern, central and southern) on the Wild Dog structure. Further oxide resources have been delineated along strike at the Kavursuki Vein.

DIMENSIONS

The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.

The Sinivit mineralisation has been defined near surface within a one kilometre length of a ten-kilometre-long structural zone. This structural zone is known to contain sporadic, largely untested or unexplored gold mineralisation over its entire length. The horizontal width is generally 10m in the upper oxidised portions, with portions of better mineralisation up to 20m thick horizontally. Below the oxide boundary the vein narrows with depth, down to 2m thick.

The oxide ore has been largely mined out.

ESTIMATION AND MODELLING TECHNIQUES

The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.

Statistical analysis of the grade data was carried out using the Surpac geological and mining software package.

Resources are reported above a cut-off of 1.5g/t Au, are based on holes drilled to August 31 2011 and are depleted with mining to June 30th 2011.

The resource estimates were constructed from "first principals" based on sectional interpretation of the geological controls and including the results of grade control drilling at the Wild Dog Vein. Shallow diamond core data was available at Kavursuki.

Classification of resource categories considered; sample density and type, geology continuity, density measurements, oxidation profile and Quality Assurance and Quality Control data.

Both grade control and exploration drilling were used to interpret and estimate the internal resource at the Sinivit Gold Project. Trench

data was utilised for geological continuity only.

The drillhole assays were composited on 2m intervals to correspond to the mining bench height and the majority of sample lengths within the database, and basic statistical analyses were conducted.

East-west cross sections spaced six metres apart were used to create a three-dimensional geological interpretation, where grade control drilling exists, and 25 metre cross sections where only exploration drilling exists (Northern Sulphide and Kavursuki). This interpretation was used to constrain the block model estimate.

The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.

The Mineral Resource estimate does not take check estimates, previous estimates and/or mine production records into account. Previous resource estimates were not JORC compliant.

The assumptions made regarding recovery of by-products.

No assumptions made regarding recovery of by-products.

Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).

The October 2011 43-101 report noted Resources remaining within the current pit design total 135,000t at 4.44 g/t gold for 19,200 ounces, with a penalty of 0.35% copper. These in-situ resources remaining have not been modified with mining or metallurgical factors.

In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.

Categories are allocated by block by domain, based on sample spacing and type, number of informing samples, geological continuity and Krige estimate confidence.

Block Model extents cover interpreted mineralisation with a block size of 20mN x 5mE x 8mRL for estimation with sub-blocking for volume to of 5mN x 1.25mE x 2mRL.

The block model results were checked against the raw input data and nearest neighbour estimates.

The search ellipse is an-isotropic in the orientation of the plane, with reduced down dip and cross strike extents. The dimensions of the search ellipse were influenced by variogram ranges in the minor directions.

The dimensions for the block models were chosen using the extents of the original drillhole data and considering the orientation of the veins. Longer in the north-south direction and narrower in the east-west direction, the depth of the blocks was determined by bench height. The blocks within the block model were selected as a compromise between the grade control and exploration drill spacing. In addition, the final file size and computing time were considered. Sub-blocking within parent block was permitted; this allows more detailed volumes to be calculated from the block model without over-smoothing the estimation by estimating into small blocks.

Any assumptions behind modelling of selective mining units.

Grade interpolated into a constrained block model by domain using ordinary kriged estimation in one pass with anisotropy applied. Estimates were validated against informing samples and nearest neighbour estimates.

Any assumptions about correlation between variables.

No specific assumptions were made about correlation between variables that are not noted herein.

The issue of mixed sample supports (grade control vs exploration drill holes) was considered negligible as domains SOX, COX and NOX are strongly dominated by the grade control drilling and are not extrapolated to depth. The domains with no grade control drilling have relied on diamond core data and the domains are modelled accordingly. Each domain is estimated independent of adjacent domains, minimising the effect of mixed sample support.

Description of how the geological interpretation was used to control the resource estimates.

The mineralisation at Sinivit occurs in multi-phase steeply dipping hydrothermal quartz tension veins which cross cut the more moderately dipping northwest trending silicified zones. East-west section interpretations were made at a 0.5g/t gold halo, from which three dimensional wireframes were constructed for each domain. The base of Oxidation was projected 10m below topography with local adjustments where drill data existed.

Discussion of basis for using or not using grade cutting or capping.

Capped gold grade estimates were made, grade capping was varied for gold domains, between 97.5 and 99th percentile dependent on vein. Copper was estimated with uncapped data.

The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

The data was manually validated by NGG.

MOISTURE

Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.

Tonnages are estimated on a natural moisture basis.

CUT-OFF PARAMETERS

The basis of the adopted cut-off grade(s) or quality parameters applied.

Resources are reported above a cut-off of 1.5g/t Au.

MINING FACTORS OR ASSUMPTIONS

Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.

The in-situ resources remaining have not been modified with mining factors. No mining dilution or loss has been applied.

METALLURGICAL FACTORS OR ASSUMPTIONS

The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.

The in-situ resources remaining have not been modified with metallurgical factors.

The oxide ore from the previous operations was processed via vat and heap leaches. There were 17 vats and 2 heaps over vats reported by NGG to contain approximately 280,000 tonnes of material. Each vat has been leached with cyanide for varying time spans with gold recoveries estimated by NGG of about 66%.

Metallurgical testing was carried out in 2010 to determine distribution and possible recovery of gold remaining in the vat leached ore and to determine a recovery method for tellurium. Results indicated Tellurium would require an acid leach, subsequent gold leaching would require a basic leach.

There has been little metallurgical testing to determine the required process for optimum treatment of the primary sulphide ore, although recovery of this is likely to be based on a floatation circuit due to the copper and telluride mineralisation.

A cursory sampling program for tellurium ("Te") content was carried out in June 2010 consisting of grab samples from the top 1.5 m depth. Copper, gold and tellurium were assayed across a range of size fractions. Average tellurium assay results ranged from 76.0 ppm to 329.5 ppm.

A composite sample of 50 kg consisting of 2.1 to 7.5 kg samples from thirteen of the vats was treated as follows: Leach sample size 125g, Grind 80% <38micrometers, Leach temperature of 70 degrees C, Leach reagent 75g/l H2SO4, Solid: liquid ratio of 25%:75%, Leach time of 4 hours.

This resulted in tellurium recoveries in the 70-86% range, Gold to be determined, Leachate: 33-78 g/l Te, Significant Fe+2, Al and Mn transfer into leachate.

Petrographic and SEM (scanning electron microscopy) analysis were also carried out in 2010 to define the gold and telluride mineralogy. Results showed tellurides tetradymite and rickardite usually restricted to quartz, and gold-silver telluride altaite usually as inclusions in pyrite and chalcopyrite.

ENVIRONMENTAL FACTORS OR ASSUMPTIONS

Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.

The Minister of Environment and Conservation of the Government of PNG granted approval for the Environmental Plan for ML122, subject to conditions, on 29th January 1996. Subsequently further botanical, avifauna, forestry and baseline water quality studies have continued to be carried out.

In December 2003, the Secretary of the Department of Environment and Conservation was informed that Macmin and GMNH intended to proceed with the development of the Sinivit Project. Douglas Environmental Services of Port Moresby, PNG was commissioned to prepare an Environmental Management and Monitoring Plan addressing the conditions of the granted Environmental Plan and reflecting legislative changes brought about by the introduction of the PNG Environment Act 2004.

The EMMP and a Construction Phase Waste Management Plan were submitted to the Department of Environment and Conservation in May 2004 and approved between May and July 2005. Water Permit renewals were lodged in November 2004 and granted in July 2005.

Thus, mining was already occurring under an existing and approved environmental plan. It was not necessary to further consider these factors.

BULK DENSITY

Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.

Historical Density records were not sighted, historical resources have used 2.5 and 2.6, and current resource uses 2.6 for fresh material and 2.5 for oxidised material. Average Kavursuki Ore measures 2.64

A bulk density of 2.6 was assigned to material below the base of oxidation, (base_ox1.dtm); material above the oxide dtm was assigned a bulk density of 2.5.

Density measurements were made on 106 core and rock chip samples during September and October 1995. These samples were selected from surface to 30 m depth from each of the Southern, Central and Northern Oxide zones. Nearly all of the samples were closely clustered around and average of 2.61 t/m3.

In 2011, 79 density measurements were collected from the Kavursuki Vein, footwall and Hanging wall within 50m of the surface. The 2011 data confirms the readings taken in 1995 with the average density reading of 2.62 t/m3. Ore material is marginally denser at 2.64 t/m3.

Complicating the density model is the lack of detail in the oxide boundary; only 166 close spaced grade control holes and all 30 of the Kavursuki diamond drilling, have depth of weathering recorded in the database. Base of oxidation is recorded in all grade control logs

The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.

The bulk density was measured using the water immersion method on core samples. The rock is sufficiently competent that wax coating was not necessary. Different rock and alteration zones within the deposit were evaluated.

Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.

Bulk density was determined by the average of direct determinations and therefore assumptions were not required.

CLASSIFICATION

The basis for the classification of the Mineral Resources into varying confidence categories.

The classification of the Mineral Resources into varying categories confidence was done relative to drill density and sectional interoperation.

Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).

Appropriate account was taken of all relevant factors.

Whether the result appropriately reflects the Competent Person's view of the deposit.

The result appropriately reflects the Competent Person's view of the deposit.

AUDITS OR REVIEWS

The results of any audits or reviews of Mineral Resource estimates.

There have been no audits or reviews of the Mineral Resource estimates.

DISCUSSION OF RELATIVE ACCURACY/ CONFIDENCE

Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.

Resources have been classified in compliance with the National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101), as Indicated and Inferred.

In terms of extensions of mineralisation and new resources, the Northern Sulphide Mineralisation is only drilled with exploration data on a broad pattern, and is thus of less confidence; the high-grade section 10,300mN in particular, requires more drilling to determine the strike extent of the prospective high grade (>10 g/t gold) mineralisation.

The additional mineralisation further along strike in the same structure outlined at the Kavursuki Project area where a new inferred resource of 613kt at 2.3g/t for 44,500 ounces of gold is based on 30 diamond holes (2,170m) as reported.

The extensive grade control drilling available provides a high level of confidence in the estimate within the upper levels, at depth sparse diamond drill data is available.

Inferred Mineral Resource

The inferred resources at Sinivit and Kavursuki are defined by broad spaced diamond drilling generally on a 50 x 50m centres providing limited sampling and geological intercepts from which to interpolate the grade and geological continuity. Surface expression is defined by trench sampling.

The inferred Northern Sulphide Mineralisation is only drilled with exploration data on a broad pattern, and is thus of less confidence; the high-grade section 10,300mN particularly, requires more drilling to determine the strike extent of the prospective high grade (>10 g/t) mineralisation. The inferred resource estimate for the Kavursuki Project area has identified two high grade shoots (>10g/t) and current exploration is targeting shallow oxide resources associated with this vein, particularly the high-grade shoots.

Indicated Mineral Resource

The indicated resources at Sinivit are of high confidence at top end of indicated given the extensive grade control drilling available, a high level of confidence can be placed in the estimate within the upper levels. The indicated resources are those resource blocks within 10 vertical metres of grade control drilling, there is sufficient data from grade control drilling and open pit exposures on the vein to assure grade continuity, though highly nuggetty as expected in an epithermal vein deposit, and geological continuity.

According to NGG's QA/QC procedures, the following samples are taken or inserted into the sample stream.

- Field Duplicate Samples ("FD"): Usually every 2 months or when sufficient samples have been dispatched, a selection of results are re-split from the coarse rejects stored on site and submitted as a field duplicate. The field duplicates are sent a regular batch and are prepared and assayed like any other sample. The results can be examined as a duplicate sample. This sample is used to monitor sample batches for poor sample management, contamination and tampering and laboratory precision. FD assesses precision.
- Field Blank ("FB"): Samples of a "blank", known to contain low level of economically interesting metals are inserted into the sample stream. Field blanks are usually inserted at a planned rate of one every 20 samples. Blanks assess contamination.
- Referee Laboratory duplicates – Field duplicate pulps are sent for check assay to another laboratory i.e. Genalysis in Townsville. The results are then plotted against the original ALS results to check for anomalous results, contamination or equipment failure or calibration trends (bias).

In addition, the independent laboratory ALS also conducts its own internal QC monitoring as noted above.

The above described QC methods, namely routine blank, duplicate and internal laboratory standards as well as the laboratory check assaying are considered adequate for the determination of accuracy and precision.

The introduction of QC protocol commenced in 2010 and there is a lack of QC monitoring data for exploration results prior to this. In addition, there needs to be procedures set up for the introduction of field blanks and CRM (or umpire laboratory checks). The inadequacy of the pre2010 QA/QC data is offset by the grade control drilling and reconciliation being conducted in the open pit mining operation. This supports the opinion that the assay data can be used within the context of the lower confidence level of inferred resources for the mineral resource estimate. In areas of high density grade control drilling and open pit exposures, it is considered that the data is adequate to define grade and geological continuity for indicated confidence level mineral resources.

The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.

Statements are specified in relation to local and global estimates, with relevant tonnages as indicated.

These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

It is not possible to compare the statements of relative accuracy and confidence of the estimate with production data, as that information is not available. The mine produced approximately 23,550 oz. Au to the end of June 2011 and it was expected that mining of oxide mineralisation would be complete by 2011. Gold production was originally planned for 2,500 oz. to 3,000 oz. Au per month but was not achieved due to issues with the VAT leach processing method.