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Year 2020 Diamond Drilling Program Report

On The

Grenfell Property

Larder Lake Mining Division
District of Timiskaming
Province of Ontario

For

Pelangio Exploration
Cedar Hill
Connaught, Ontario

Part I of II

J. Kevin Filo, P.Geo
Filo Exploration Services Limited
1080 Michelano Drive
Timmins Ontario
P4P 1H9

Jan.10, 2021

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Copies of Drill Logs (Part II)

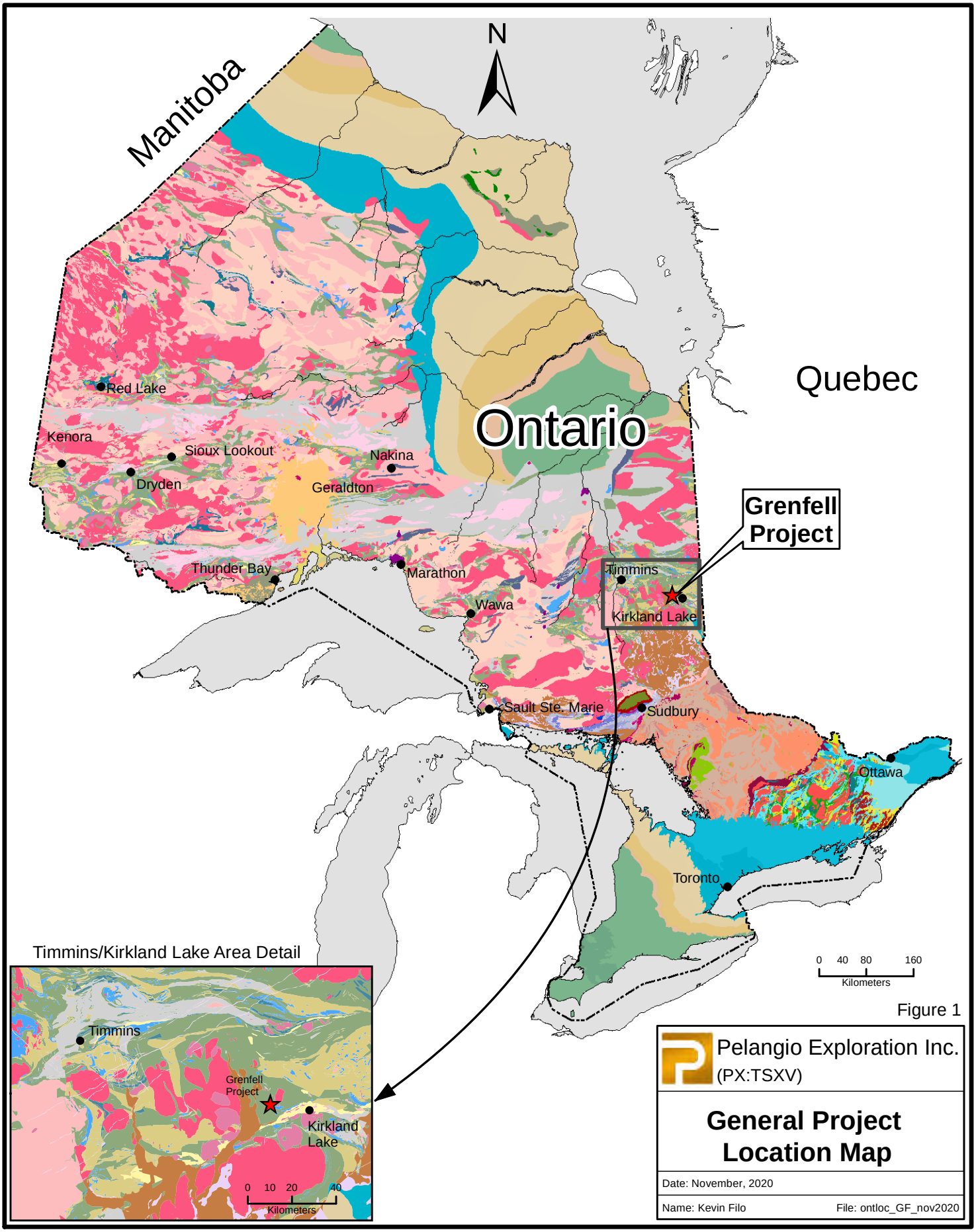


Figure 1

Pelangio Exploration Inc.
(PX:TSXV)

General Project Location Map

Date: November, 2020

Name: Kevin Filo

File: ontloc_GF_nov2020

Summary:

Two campaigns of drilling were completed on Pelangio's Grenfell Property; these programs were carried out in early 2020, and the fall of 2020. Due do logistics issues the initial program was a helicopter supported diamond drill program mobilized from the village of Sessikenika Ontario. The second program utilized a mobile unitized drill rig mobilized from access roads and trails north of the Macassa Mine headframe in Kirkland Lake Ontario. Field operations including mobilization and demobilization were conducted from Dec. 20/2019 to Feb. 3/20 and Sept.14/2020 to Sept. 24/2020 for the 1st and 2nd programs respectively. Planning and supervision of both drill programs was carried out under the direction of J.Kevin Filo, P.Geo. The drilling contracts were both completed by NPLH Drilling from Timmins Ontario and all helicopter support for the 1st program was from Expedition Helicopters from Cochrane Ontario. All core logging and sampling for the program was completed Feb.15/2020 and Oct. 26/2020 for the 1st and 2nd programs respectively.

The purpose of the first phase of drilling in early 2020 was to follow up on historical drill intercepts from the 1930-1940 era on the northwesterly trending No.6 Vein as well as an intercept from SGX Resources recently discovered SW target. During the 1st program 684 meters of drilling was completed in 8 drill holes. The 2nd phase of drilling was conducted to follow up on the strike extension of No.6 Vein as a result of extremely positive results from the 1st phase of drilling. Holes JS2013 and JS2014 targeted the strike extension and down dip of the No.6 Vein. The 2nd phase of drilling also targeted two other northwesterly trending structures in light of the initial success on the No.6 Vein, the other two structures were the historical Shea Vein and the Central Target, tested with holes JS209 and JS2010 respectively. A single hole (JS2011) was also drilled to test the historical No.1 Vein which was reported to have returned 0.2 oz of gold over 3 feet for 180 feet of strike length in a development drive of the 250 level (J. Londry P.Eng., 1985). During the 2nd phase of drilling 540 meters of drilling was completed in 5 drill holes. The target areas and collar locations for both the 1st and 2nd phase of drilling can be seen in the accompanying Fig. 7.

During the course of the program there was very limited environmental impact as only a few trees were cleared and access was generally along established trails. Once a hole was completed casing was left in the hole and the casing capped and flagged with a metal red flag attached to the cap.

Geographic control points with respect to the property boundary and actual hole location were determined using a hand held Garmin GPS unit. The property map datum utilized was Nad 83 Zone 17.

The best intercepts obtained from the 1st phase of drilling were obtained in a fan of holes designated JS2004, JS2005 and JS2006 on the No.6 Vein target. Hole JS2004 returned 2.5 g/t Au over 26 m with a higher-grade intercept assaying 9.39 g/t gold over 3.0 meters. A broader mineralized zone from JS2005 assayed 1.32 g/t gold over 26 m when a high-grade intercept of 1810 g/t gold over 30 cm was cut to 34.28571 g/t gold. Hole JS2006, returned a short interval of 26.50 g/t gold over 0.32 m prior to being lost in

560000 562000 564000 566000 568000 570000

5336000 5334000 5332000

Phase 1 & 2
Drilling Location

ZZZ A1 A1 RRR QQQ PPP OOO NNN MMM LLL KKK JJJ III HHH GGG FFF EEE DDD CCC BBB AAA ZZ YY XX VV UU TT SS RR QQ PP OO NN MM LL KK JJ II HH GG FF EE DD CC BB AA Z Y X W V U T S R Q N M F O L K J I H G F E D C B A

Accassa Ln
Goldthorpe Road
66

Chaput
Hughes

name	Easting	Northing
A	569735	5332551
C	569518	5332707
D	569225	5332595
E	569099	5332747
G	568743	5332741
L	568284	5332418
M	567650	5332239
N	567328	5332121
Q	566850	5332022
U	564223	5331944
EE	563495	5333462
OO	562656	5334234
SS	562709	5334844
CCC	561353	5335574
III	560582	5335161
RRR	560099	5336094

0 0.5 1 2
Kilometers

Pelangio Exploration Inc.
(PX:TSXV)

Grenfell Property Access Map

Date: November, 2020

Name: Kevin Filo File: grenfell_nov2020_access

Figure 2

historical workings. No significant results were obtained on follow up holes (JS2007 & JS2008) on the SW target. (see Fig. 7 &7A)

In the 2nd phase of drilling the best intercepts were obtained in Hole JS2013 and JS2014. Highlights from JS2013 included a new vein intercept in the hanging wall of the No.1 Vein which returned 10.95 g/t gold over 3 meters. Hole JS2014 intersected two mineralized intercepts in the hanging wall of the No.1 vein which assayed 1.45 g/t Au over 9 meters and 1.76 g/t Au over 4.5 meters with some higher grade intercepts of 4.02 g/t Au over 1.1 m and 3.46 g/t Au over 1.5 m respectively.

Full details on assay highlights can be found in the accompanying Table 2; detailed conclusions and recommendations for further work are found in the latter portion of this report.

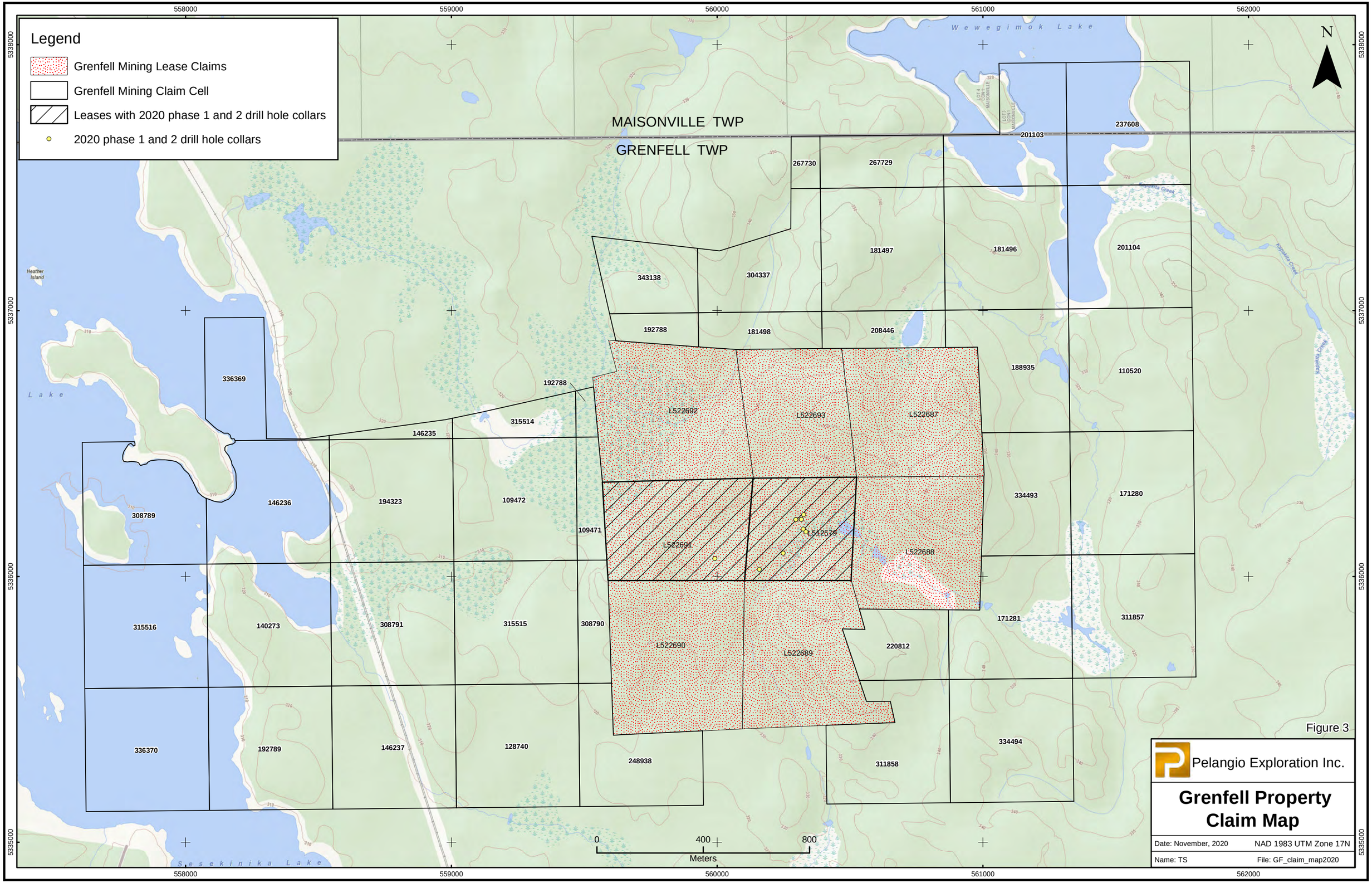
Introduction and Terms of Reference:

The author was retained by Pelangio Exploration (Pelangio) to prepare an interim technical geological report to document the recent diamond drill programs completed by Pelangio in 2020. This report will discuss work programs carried out on the Pelangio Grenfell Property as well as results and recommendations. The Pelangio Grenfell Property covers approximately 6.7 square km of prospective land in Grenfell Township, located approximately 15 road km northwest of Kirkland Lake, Ontario. (Fig.1,2,3). The purpose of this report is to fulfill assessment requirements of the Government of Ontario and for internal corporate records.

The 2020 1st and 2nd phase drill programs conducted by Pelangio were designed, implemented and supervised by the author of this report. The author is VP Corp. Development for Pelangio and holds a substantial share position in Pelangio; consequently, the author is not independent of the company.

The majority of reference data used in this report was taken from private files obtained from the Sirola family records. The Sirola family has been directly and indirectly involved in the property since the 1930's. The author also referenced some assessment reports, and OGS regional airborne data, and regional geological reports.

The 1st and 2nd phase drill programs together consisted of 1224 meters of drilling (13 drill holes). The 1st phase drill program was designed to follow up on historical intercepts and a more recent intercept by SGX Resources on the historical No.6 Vein. Also, two holes from the 1st phase program were laid out to follow up on the SW target, a new zone discovered by SGX Resources in 2012-2013. The 2nd phase of drilling was primarily focused on extending the strike extension of the No.6 Vein to the SE as a result of the positive results obtained early in 2020. Holes JS2013 and JS2014 targeted the strike extension and down dip extension of the No.6 Vein. The 2nd phase program also targeted two other NW trending targets, the Shea Vein (DDH JS2009) and the Central target (DDH JS2010) as a result of positive results obtained on the NW trending No. 6 Vein. A single hole (DDH JS2011) also drill test the historical NE trending No.1 Vein. In all instances the drill holes targeted potential zones of high-grade mineralization and associated broad zones of lower grade mineralization. The target areas and collar


Legend
Grenfell Mining Lease Claims
Grenfell Mining Claim Cell
Leases with 2020 phase 1 and 2 drill hole collars
2020 phase 1 and 2 drill hole collars
N
MAISONVILLE TWP
GRENFELL TWP
Wewegimok Lake
Heather Island
Lake
Sesekinika Lake
Kapakita Creek
558000
559000
560000
561000
562000
5338000
5337000
5336000
5335000
267730
267729
237608
201103
181497
181496
201104
343138
304337
192788
181498
208446
188935
110520
336369
315514
146235
L522692
L522693
L522687
L522691
L512579
L522688
L522690
L522689
220812
146236
194323
109472
109471
308789
334493
171280
315516
140273
308791
315515
308790
171281
311857
336370
192789
146237
128740
248938
311858
334494
0
400
800
Meters
Figure 3
Pelangio Exploration Inc.
Grenfell Property Claim Map
Date: November, 2020
NAD 1983 UTM Zone 17N
Name: TS
File: GF_claim_map2020

locations for both the 1st and 2nd phase of drilling can be seen in the accompanying Figure 7.

A brief summary of the program results were discussed in the previous summary section of the report; a more detailed account of results are documented in the following sections of the report along with further recommendations.

Property Description and Location:

Location:

The Pelangio Grenfell Property is located within Grenfell Township or approximately 15 road km northwest of the Town of Kirkland Lake Ontario in the Larder Mining District (Fig.1,2,3).

Property Claims and Status:

The Grenfell Property is controlled 100% by Pelangio Exploration; subject to various underlying royalties. The property is comprised of eight mineral leases and 40 claim cells. The property boundary along with all leases and claims cells with their corresponding reference numbers can be seen in accompanying Figure 3. In 2012 the eight mineral leases had been renewed for another 21 year period and thus the only maintenance necessary on the leases is the annual payment of taxes which are paid by Pelangio as required. There is substantial assessment reserve on the minerals leases to apply to adjoining claim cells so as to maintain them in good standing for a number of years to come. At the time of writing the claim cells were in good standing until the year 2024. The total estimated area of the Grenfell Property is approximately 6.7 sq km.

Environmental Considerations and Permitting:

The Grenfell Property has been explored since the early 1930's and has had some limited gold production. This production was from bulk sampling in an underground stope and a surface trench, this work is historical and carried out prior to the current lease. The bulk sample material was not processed on site, as there were no milling facilities or accompanying tailings. At present there is shaft to a depth of 265 feet and there is some development work on the 150 foot and 250 foot levels. A waste pile of rock taken from excavations is located proximal to the current shaft location. (563079E 5336192N, Nad 83, Zone 17). The Ministry of Northern Development and Mines has fenced in the collar of the old shaft for safety reasons. Exploration activities since the 1930's to the present day consisted of prospecting, trenching and diamond drilling. Historical work to date appears to have had very limited environmental impact and disturbances to the environment are considered minimal.

All mineral exploration work in Ontario requires and exploration permit. Permits for early stage exploration work such as line cutting, geophysics and diamond drilling are obtained in a reasonable length of time. All exploration work requires consultation with First Nations prior to application for a permit. The permit number for the recent exploration work conducted on the Grenfell Property is PR-19-000179.

Accessibility, Climate, Local Resources, Infrastructure, and Physiography:

Access to the Grenfell Property via a northern route is provided by the Sesekinika village access road which branches off Provincial Highway 11. Upon reaching the extreme eastern extremity of the village a person would continue west on the main road from the village for approximately 1 km. to a fork in the road about 100 m. beyond a wooden bridge. At the fork in the road access is gained by turning on to an ATV road heading in a SE direction for approximately 2km; at this point the original fenced in shaft collar iS visible. A series of old logging roads and trails cross the property allowing general access to the entire property. Alternate access with heavy equipment such as drill can be obtained through a series of old logging roads and trails north of the Macassa Mine as shown in the accompanying access map shown in Figure 2. The western extremity of the property along the shore of Sesekinika Lake is crossed by the Ontario Northland Railway; this is an alternate access as well.

The main town proximal to the property is the Town of Kirkland Lake. Kirkland is a significant mining town with accommodations, restaurants and various supply and machine shops. The town also has a skilled work force for both mining and mineral exploration.

Grenfell Township is located is a few miles south of the height of land in Northern Ontario. The main drainage in the area is the Blanche River and tributaries of Engelhart River. Kapatika Creek drains the northeast part of Grenfell Twp. into Sesekinika Lake. This creek links Armer, Wewegimok and Kapatika Lakes. At the northwest end of Sesekinika Lake the Blanche River runs south to Kenogami Lake then leaves the area at the Southeast corner of Grenfell Twp. (ODM Report 30, Grant, J.A.)

The author observed the Grenfell Property has moderate to locally rugged topography composed of rocky knolls covered with glacial till and gravels interrupted by low lying cedar and alder swamps. Substantial portions of the property have been logged off over the past fifteen years and thus in many area trees are not mature. Most of the more recently planted areas have jack pines, but in areas that have not been logged there are also birch and poplar as well as jack pines.

Climate is typical of northeastern Ontario with below freezing temperatures (-5 to -40 degree Celsius) from November to April and brief periods of hot weather in the summer from 10 to 30 degrees Celsius. Precipitation averages 80 cm per year, with a substantial portion in the form of snow averaging 2.4 m. per year. General exploration is restricted to the month of June to September, when the ground is not covered by snow. However, drilling and geophysical work can be carried out in the winter months when a thick snow pack improves access to otherwise swampy areas. (ODM Report 30, Grant, J.A.)

History:

As stated previously there has been substantial historical exploration work on the current leased claims since the early 1930's. A historical account of the work conducted on the property is documented in a private report in 1980 by John Sirola. The bulk of this section is taken from the Sirola report to about 1980. Beyond this the author references

a number of other private reports obtained from the Sirola family as documented below:

- In 1932 Woodward-Kirkland Syndicate sank a 60 foot shaft on a narrow high grade gold bearing quartz vein. This shaft is currently located at 563079E 5336192N Nad 83 Zone 17 on Lease Claim L512579 or roughly L0, BL0 of the last grid cut on the property by SGX Resoruces.

- In 1933 Woodward-Kirkland deepened the shaft to 265 vertical feet and established levels at 150 and 250 foot horizons. In 1934 Kirkland Consolidated took over the project and staked 12 claims to surround current claim L512579.

- Kirkland Consolidated conducted underground exploration work on the property from 1934 to 1935. By the time that underground exploration ceased development consisted of a station on the 150 foot level and development on the 250 foot level. Development on the 250 foot level consisted of 800 feet of drifting along with 1300 feet of crosscutting. Further, a total of 3270 feet of underground drilling and 2886 feet of surface drilling had been completed.

- In 1937 the property was leased by Donald E. Sirola, for two years. D. Sirola excavated a trench 30 by 7 by 6 feet from August to December of 1938. A bulk sample was taken and some ore shipped for processing.

- In September of 1938 Kiryan Gold Mines Ltd was formed to take over from Kirkland Consolidated Mines Ltd. Some limited diamond drilling was completed from 1939 to 1940.

- In 1941 D.S. Baird and T.M. Church leased the property to prospect it for tungsten after a government geologist documented an occurrence of tungsten with the gold veins in mid 1941. Baird and Church also dewatered the shaft and carried out 15 feet of drifting and 14 feet of crosscutting. A total of 177 tons of bulk sampling was completed and shipped for processing.

- In 1942 the Toburn Mining Co. of Kirkland Lake is reported to have dewatered the shaft and sampled the underground workings, no record of the results of this work has been found.

- In 1959-1960 the claims covering the shaft area were restaked but there is no record of any exploration completed.

- In 1978 John Sirola staked a single unit claim to cover the area surrounding the current shaft and in 1979 seven additional claims were staked, these claims now comprise the leased claims controlled by Pelangio. In 1980, J. Sirola dewatered the trench proximal to the shaft and remapped and sampled the trench. Sirola confirmed significant gold values in the trench and observed visible gold.

- In 1982, R. Benner, P.Eng., and John Sirola, P.Eng completed a geological map covering the current leased claims. This map provided a good basic geological picture but more importantly it documents a numerous old trench and pit locations outside of the shaft area. No sampling information on these historical pits were available.

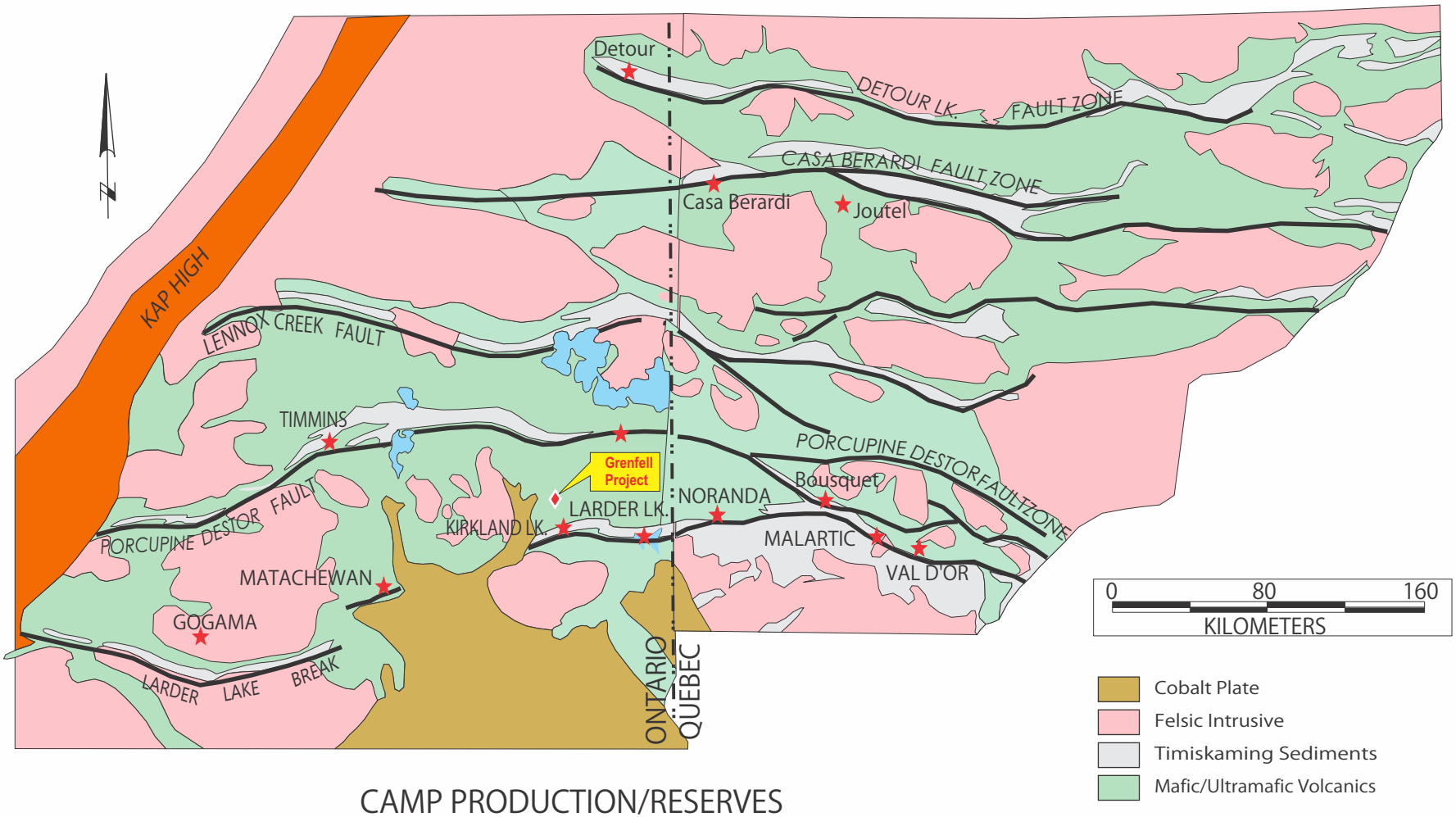
- In 1985 John E. Londry, P.Eng. conducted an independent review of the property for John Sirola. Londry calculated a small resource which is now deemed historical by current NI 43-101 standards. Londry, utilizing chip sample data from the 250 level records calculated 3200 tons @ 0.64 oz. per ton Au on what was designated the No.1 vein. Similarly, he utilized chip sample data from surface trenching to calculate a tonnage of 500 tons @0.57 oz per ton Au; this surface vein was designated the Sirola Vein. (splays from No 1 vein) Together these two veins were deemed to contain 2305 oz of gold in the probable category. A calculation was also done on a vein designated the No. 6 Vein, a northwesterly trending vein associated with a porphyry. From a series of drill holes Londry calculated 6100 tons @0.54 oz. of gold per ton or 3295 oz. of gold in the possible category. (Londry, J, 1985)

- In 1987 Neighbors Resources optioned the property from J. Sirola and completed 3974 feet of drilling in the vicinity of the shaft. A summary report on this work was completed by H. Dowaluck. Dowaluck, noted that there was substantial low grade gold mineralization associated within the wall rock of the high grade veins. Consequently, he recommended re-sampling of all the Neighbor's Resources core to evaluate the bulk tonnage potential of the project. Some of the best intervals reported by Dowaluck included 0.084 oz./ton over 65.7 ft. and 0.079oz./ton over 42 feet. Some of these intersections were supported by high grade intercepts. Dowaluck, recommended that Neighbors Resources core be sampled from top to bottom to better evaluate the property for bulk tonnage potential; this work was not completed. (Dowaluck. H. 1988)

- In 1990 Gold Fields Canadian Mining Limited examined and sampled some of the Neighbors drill core during the course of a property evaluation. Values ranging from a few ppb Au to 0.159 oz /ton gold were obtained. No further work was conducted by Gold Fields. (Montgomery, K., 1990)

- In 1995 Otis J Exploration conducted some mapping and sampling work through and option agreement prior to a related company, Sedex Mining Corp continuing the exploration efforts in the same year.

- In 1995 the property was optioned by Sedex Mining Corp. Work on the property was comprised of line cutting to facilitate magnetic and induced polarization surveys as well as some geological mapping and sampling in the immediate shaft area (Lease Claim 512579). A seven hole drill program of 953 meters was completed to follow up on some of Dowaluck's observations and partially evaluate some geophysical targets. The best result obtained in this program was 2.62 g/t Au over 13.72 meters. (Filo, J.K., P.Geo, Sedex Mining Report 1995)



CAMP PRODUCTION/RESERVES

TIMMINS	71 Mill oz	BOUSQUET	21 Mill oz
LARDER-KIRKLAND	47 Mill oz	CADILLAC-MALARTIC	8 Mill oz.
NORANDA	19 Mill oz	CASA-BERARDI	2.5 Mill oz.
VAL D'OR	20 Mill oz		

ABITIBI GEOLOGY - LOCATION MAP

Figure 4

Pelangio Exploration Inc.

Grenfell Property
General Geology of Abitibi Belt

Date: November, 2020

Name: Kevin Filo File: fig4_gen_loc_map.cdr

- In mid 2012 Mrs. Gladys Sirola sold the original eight lease claims to 2090720 Ontario Inc, 2229667 Ontario Inc and Shoreacres Explorations Ltd. At this time a compilation of all historical drilling information was completed by J.K. Filo, P.Geo., to facilitate future exploration related to historical targets.

- In August of 2012 SGX Resources optioned the original leased claims and re-established a survey control grid on the property to facilitate geophysical and geochemical surveys. Initial survey work outlined a number of new targets as well as historical targets for follow up. SGX Resources outlined some interesting gold values in what was designated the SW and SWS targets (Historical holes JS1302 and JS1303). Two SGX holes also tested the historical No.6 Vein. A single hole JS1312 intersected 19.5 g/t gold in association with a broad low grade mineralized zone as shown in Figure H1. (Filo, J.K., P.Geo SGX Resources, 2013)

- Through a series of corporate transactions a 100% interest in the property was acquired by Pelangio Exploration in order to facilitate the drilling programs conducted in the year 2020 detailed in the current report.

Geological Setting:

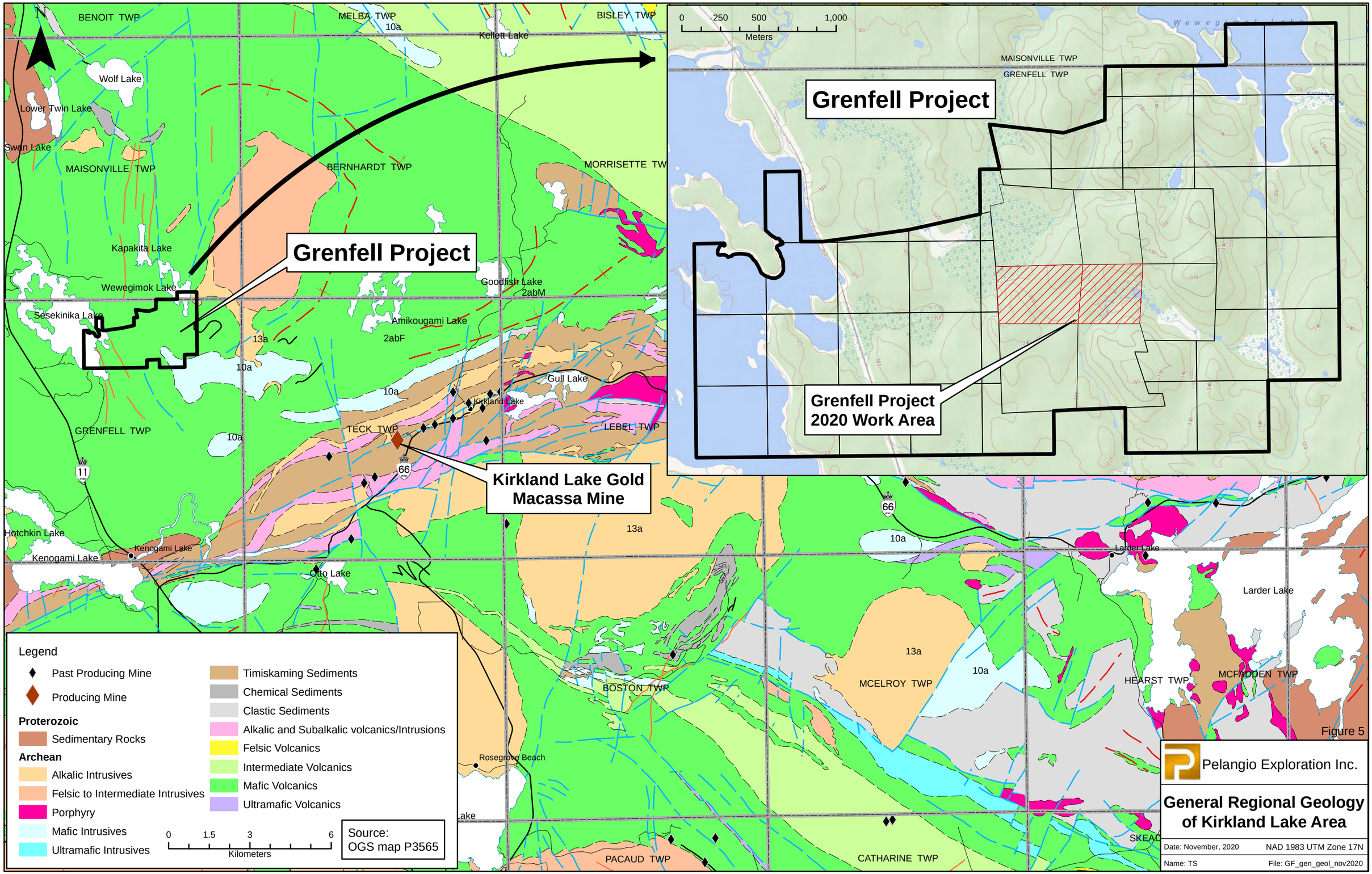
Regional Geology:

The Grenfell Prospect is located in the Abitibi Geenstone Belt of the Superior Province of the Canadian Shield. The Abitibi Greenstone belt is a large granite-greenstone terrain some 150,000 km^2 in area extending from Lake Superior in north-central Ontario through into north-central Quebec. Measuring 750 km long by 200 km wide, the Abitibi Greenstone belt is the largest greenstone belt within the Canadian Shield. (see Fig. 4)

Metamorphic grade varies from greenschist to lower amphibolite facies. Recent U-PB Zircon geochronology has shown that the volcanic-sedimentary pile accumulated in three major cycles over a period of 50 million years. Most of the volcanic activity is interpreted to have occurred between 2730 and 2700 Ma (Corfu et al, 1989). The Abitibi Greenstone belt is the most prolific Archean terrain in terms of copper-zinc sulphide mineralization and gold mineralization.

Major east and northeast trending faults (Destor Porcupine Deformation Zone Cadillac-Larder Deformation Zone), were active throughout the main periods of volcanism, and became the focus of a late period of alkaline volcanism and sedimentation between 2680 and 2677 Ma. These deformation zones are the focus of most of the major gold deposits found within the Timmins, Kirkland Lake, and Holloway gold camps. In excess of 120 million ounces of gold has been produced from mines associated with these two major structures.

The Abitibi Belt has been grouped into a series of stratigraphic groups. In the Kirkland Lake Area there are two basic supergroups that have been designated as the Upper and Lower Supergroups which have been intruded by younger granitoid instrusives. In the main Kirkland Camp the bulk of production comes from the upper most group (Timiskaming Group) of the Upper Supergroup in association with granatoid intrusives


N
BENOIT TWP
MELBA TWP
BISLEY TWP
10a
Kellett Lake
Wolf Lake
Lower Twin Lake
Swan Lake
MAISONVILLE TWP
BERNHARDT TWP
MORRISETTE TW
Grenfell Project
Kapakita Lake
Wewegimok Lake
Goodfish Lake
2abM
Sesekinika Lake
Amikougami Lake
2abF
13a
10a
Gull Lake
Kirkland Lake
GRENFELL TWP
TECK TWP
LEBEL TWP
Kirkland Lake Gold
Macassa Mine
11
66
Hotchkin Lake
Kenogami Lake
Otto Lake
13a
10a
Larder Lake
Larder Lake
13a
10a
MCELROY TWP
BOSTON TWP
HEARST TWP
MCFADDEN TWP
Rosegrove Beach
PACAUD TWP
CATHARINE TWP
SKEAD
0
250
500
1,000
Meters
MAISONVILLE TWP
GRENFELL TWP
Grenfell Project
Grenfell Project
2020 Work Area
Legend
Past Producing Mine
Producing Mine
Proterozoic
Sedimentary Rocks
Archean
Alkalic Intrusives
Felsic to Intermediate Intrusives
Porphyry
Mafic Intrusives
Ultramafic Intrusives
Timiskaming Sediments
Chemical Sediments
Clastic Sediments
Alkalic and Subalkalic volcanics/Intrusions
Felsic Volcanics
Intermediate Volcanics
Mafic Volcanics
Ultramafic Volcanics
0
1.5
3
6
Kilometers
Source:
OGS map P3565
Figure 5
Pelangio Exploration Inc.
General Regional Geology
of Kirkland Lake Area
Date: November, 2020
NAD 1983 UTM Zone 17N
Name: TS
File: GF_gen_geol_nov2020

and the Kirkland Larder Lake Break. The Larder Lake Break and associated rocks are present in the extreme SE part of Grenfell Township. However, the vast majority of Grenfell including the subject property is covered by Kinojevis Group rocks or the bottom stratigraphic package of the Upper Supergroup. (Jensen, L.S.,1986)

In the early 1960's a geological mapping programs was completed over all of Bompas and Grenfell Townships by the Ontario Department of Mines (Geological Report No.30) under the direction of J. Grant. This mapping program covered all of the current leased and staked claims. The ODM map showed the NW portion of Grenfell Twp including the subject property to be underlain by volcanic rocks ranging in composition from basalt to dacite. Grant, remarked that there were a number of gabbroic intrusives as well which are very evident from historical property scale mapping on the subject property. In many instances it was difficult to discern some of the coarse flows from gabbroic intrusives due to a lack of contact relationships. (Grant, J.,1960)

Property Geology:

The original leased claims were mapped by Benner, R., P.Eng in 1981. Benner's map shows the extreme NE leases (522687 and 522688) to be underlain by volcanics ranging in composition from basalt to dacite. The same volcanic package forms a narrow wedge extending from lease claims 522687 & 522688 across the central portion of lease 512579. Similar volcanics cover the extreme NW portion of the property, mainly lease 522692 and a small portion of lease 522691. The rest of the property is covered by gabbroic intrusive. A more detailed geology map of the leases surrounding the shaft was completed by J.K. Filo, P.Geo for Otis J Exploration in 1995. This map compliments the earlier work conducted by Benner In 1981. A copy of the Otis J map can be seen in accompanying Figure 6.

The primary structure on the property is a shear zone with splays in the immediate vicinity of the shaft (approx BL 0, L 0 on the 2013 SGX grid). This shear trends at approximately 045 degrees azimuth and hosts the No.1 Vein (and associated splays) with a similar azimuth. Dowaluck in 1988 postulated that this shear was the extension of a major shear zone designated the Wentright Shear extending in a SW direction from Maisonville Township where it is well exposed. Benner, also inferred a number of NW trending structures as well from topography and also confirmed the presence of the NW trending gold bearing Shea Vein (290 degrees azimuth) associated with a shear at the same azimuth. This 290 degree azimuth corresponds with porphyry dykes orientations underground on the 250 level near shaft (referenced as No 6 Vein target by Londry,1985) These porphyry dykes are known to be associated with gold mineralization as well. It is apparent from this information that structure at 045 degrees azimuth and 290 degrees azimuth are important controls for gold mineralization on this property.

A compilation of drill hole data including geological information was completed using historical drill logs and old historical plans from the Sirola family data base and assessment file data. In order to maintain a consistent lithological table original nomenclature for various rock types was carried forward from early work including drilling in the 1980's. Of particular note is the gabbroic unit which is dominant unit in most of the work. No slide work or whole rock analysis has been completed on this unit; and this unit may be classified incorrectly as it is possible this is a diorite unit; but for consistency it has been continually called gabbro.

Figure 6

Pelangio Exploration Inc.

Lease Claim
Detailed Geology

Adapted after: Otis J. Exploration, 1995

Date: November, 2020 | NAD 1983 UTM Zone 17N

Name: TS | File: lease_clm_detail_geol

LINE 3W
LINE 2W
LINE 1W
LINE 0
LINE 1E
LINE 2E
300 N
200 N
100 N
BL 0 (AZ 55°)
100 S
200 S
GRID NORTH
TRUE
35°
SCALE 1:1000
10 5 0 10 20 30 40 50 METERS

L522692
L522691
L522693
L512579
L522687
L522688
L522690
L522689

1A,LEU
1B,LEU,EP
1A,BGP
1B,BGP, PY,ES
1B
1C-1B,LEU TRACE PY, MINOR BGP
1A-1B
1A-1B,BGD
1A,PY,MAG
1B,LEU,EP
1A,BGP,PY
1A,LEU, BGP,EP,MAG
1B,LEU, EP,QS
1B,BGP
1A,BGP,EP
1A EP,BGP
SHEA VEIN STRUCTURE EXTENSION?
1A,ES,TRACE PY
1A,1B,EP,MINOR PY
1A,1B
1B,BGP,BGS MINOR PY
MINE ROAD
1A,BGP,EP
1A,BGP, EP
1A,BGP, EP,QS
1A,MAG
1B,LEU
1A,EP
1A
SHEA VEIN STRUCTURE
VISIBLE GOLD
2A
2B
VOLCANICS
1B-1C,PY
1A,BGP,EP
2A (PINK FEL.STR)
2C, (N.TOPS?)
1B,1C,LEU BGP
1B,BGP
1A,BGP,BGS
1A,PY(MINOR)
1B,LEU, PY 1/2-1%
1B,PY
1A,MINOR BGP
1B,RARE BGP&BGS
1B,RARE BGP & BGS
1C
3
1B,1C,LEU,MAG
1A,LEU,BGS,MAG
MD(4)
1A,1B
1A,LEU BGP
1A,EP,BGP
1A,LEU,EP

LEGEND

LITHOLOGY

1-GABBRO
1A-COURSE GRAINED GABBRO
1B-MEDIUM GRAINED GABBRO
1C-FINE GRAINED GABBRO
LEU-LEUCOCRATIC PHASES OF GABBRO

2-MAFIC VOLCANIC
2A-MASSIVE FINE GRAINED MAFIC VOLCANICS
2B-MASSIVE PORPHYRITIC MAFIC VOLCANIC
2C-PILLOWED FINE GRAINED MAFIC VOLCANICS

3-GRANDIORITE

MD 4-MAFIC DYKE

MINERALIZATION

E-EPIDOTE
ES-EPIDOTE STRINGER
EP-EPIDOTE PATCHY
MAG-MAGNETITE
PY-PYRITE
QZ-QUARTZ
QS-QUARTZ STRINGER
QV-QUARTZ VEIN
BG-BROWN GOSSAN
BGS-BROWN GOSSAN STRINGER
BGP-BROWN GOSSAN PATCH

STRUCTURE

JOINT WITH AZ
JOINT WITH AZ & DIP
QUARTZ VEIN WITH AZ
EPIDOTE STRINGER WITH AZ
BROWN GOSSAN STRINGER WITH AZ
CONTACT ASSUMED
CONTACT ACTUAL
SHEARING
FAULT ASSUMED, WITH MOVEMENT DIRECTION
BRECCIA

SYMBOLS

SAMPLE LOCATION
MUCK PILE
SHAFT
SWAMP
TRENCH
SCATTERED OUTCROP
OUTCROP
STEEL SURVEY PIN

560000 560100 560200 560300 560400

5336200 5336100 5336000

Legend

- 2020 phase 1 and 2 drill hole collar
- 2020 phase 1 and 2 drill hole trace
- Select historic drill hole collar

N

JS2011
560326mE
5336231mN
elev: 329.00
Az:130°, Dip: -62
EOH: 90.00

JS2004
560318mE
5336214mN
elev: 330.20
Az:197°, Dip: -47
EOH: 60.00

JS2002
560297mE
5336213mN
elev: 330.20
Az:200°, Dip: -60
EOH: 81.00

JS2005
560318mE
5336214mN
elev: 330.20
Az:197°, Dip: -60
EOH: 125.50

JS1311
JS1312

JS2001
560297mE
5336213mN
elev: 330.20
Az:200°, Dip: -45
EOH: 60.00

JS2006
560318mE
5336214mN
elev: 330.20
Az:197°, Dip: -70
EOH: 53.50

JS2003
560297mE
5336213mN
elev: 330.20
Az:200°, Dip: -70
EOH: 101.75

JS2011
JS2013
JS2014
JS2006
JS2003
JS2005
JS2002
JS2001
JS95-5
JS95-6
JS2004
pit
shaft

JS2013
560325mE
5336177mN
elev: 328.00
Az:20°, Dip: -65
EOH: 129.00

JS2014
560335mE
5336167mN
elev: 326.00
Az:20°, Dip: -67
EOH: 150.00

reference line 200E
azimuth 110°

reference line 200N

mine workings @ 250 level

JS2010
560249mE
5336087mN
elev: 326.00
Az:47°, Dip: -63
EOH: 90.00

JS2010

JS2009

JS2008
559992mE
5336066mN
elev: 329.00
Az:130°, Dip: -55
EOH: 113.85

JS2007
559992mE
5336066mN
elev: 329.00
Az:130°, Dip: -45
EOH: 90.00

JS1302

JS2007
JS2008

JS2009
560160mE
5336026mN
elev: 327.00
Az:47°, Dip: -51
EOH: 81.20

L522691
L512579
L522690
L522689

0 40 80
Meters

Figure 7

Pelangio Exploration Inc.

Grenfell Property Drill Hole Plan

Date: November, 2020 NAD 1983 UTM Zone 17N

Name: TS File: GF_ddh_plan_nov2020

560300

560400

5336200

5336200

Legend

- 2020 phase 1 and 2 drill hole collar
- 2020 phase 1 and 2 drill hole trace
- Select historic drill hole collar

N

L512579

No.1 Vein 250 foot level

250 foot level No.6 Vein Porphyry

mine workings @ 250 ft (76 m) level

shaft

JS2013
10.95 gpt Au/3.0m

JS2011
1.26 gpt Au/6.80m
incl. 4.91 gpt Au/1.50m

JS2014
1.76 gpt Au/4.5m

JS2014
1.45 gpt Au/9.0m

JS2013
1.16 gpt Au/7.5m

JS2013
11.4 gpt Au/0.60m

JS1312
2.43 gpt Au/10.0m
incl. 19.50 gpt Au/1.0m

JS2005
1.32 gpt Au/26.0m
incl. 314.00 gpt Au/1.74m (uncut)

JS95-6
1.77 gpt Au/7.62m

JS2006
26.50 gpt Au/0.32m

JS2004
2.50 gpt Au/26.0m
incl. 9.39 gpt Au/3.0m

JS95-5
2.60 gpt Au/13.73m

JS1311
JS1312

JS2011

JS2005
JS2006
JS2004

JS2001
JS2002
JS2003

JS2014

JS2013

JS2011

JS2006

JS1311

JS1312

JS2003

JS2002

JS2001

JS95-5

JS2004

JS2013

JS2014

JS95-6

JS2004

0 10 20
Meters

Figure 7A

Pelangio Exploration Inc.

Grenfell Property
Drill Hole Plan

Date: January, 2021 | NAD 1983 UTM Zone 17N

Name: TS | File: GF_PR_plan_jan2021

560300

560400

Survey Control:

A cut line survey grid was completed over the entire group of leased claims in 2012-2013. The base line and many old cut lines with metal tags could be still observed in 2020. The Baseline 0 / Line 0 intersection point was cut proximal to the shaft collar on the property at 5336194 N and 560321E (Nad 83, Zone 17). More specifically the centre of the shaft is approximately at station 11.5 meters east on the baseline and 3 meters south. This is a best estimate due to the fact that the actual shaft centre is surrounded by a safety fence.

The historic SGX Resources control grid baseline was oriented at 040 degrees azimuth and 100 meter spaced lines were cut at right angles to the baseline at 130 degrees azimuth. Note, a review of the original SGX report noted that the baseline azimuth and line azimuth were reported in error at 45 and 135 degrees respectively. During the course of geophysical surveying by former operator SGX Resources each data point on the grid was surveyed with a GPS system so as to give an accurate location of the entire grid for reference purposes. Although the old SGX grid was and aid in target location, all Pelangio drill holes were spotted using a hand held GPS unit. It was noted that geo referenced historical maps and associated historical surface working correlated well in the field so that a high confidence level could be had when targeting the 2020 Pelangio drill holes with a GPS unit.

Upon completion of the exploration program drill hole collars were surveyed in using a hand held GPS and down hole readings were taken during the course of drilling to determine hole deviation where possible. Drill hole collars were also marked and labeled. A number of erratic readings occurred in down hole survey tests due to magnetics and these were excluded from the data base as they were determined inaccurate. Elevations for the drill holes were estimated using government topographic contour maps. A more accurate survey of collar locations and elevations along with some of the old workings will have to be conducted in the near future as the property is advanced further.

Drilling Program Discussion:

In 2020 Pelangio Exploration conducted a 1224 meters (13 holes) of drilling on the Grenfell Property. The program consisted of two drill program phases; the 1st phase was conducted in early 2020 and a 2nd phase conducted in the fall of 2020. The 1st phase of drilling was designed to further evaluate the NW trending No.6 Vein where limited historical drilling from both underground and surface were indicative of excellent gold potential. Two drill fans with three holes from each fan (JS2001-JS2003 & JS2004-JS2006) were completed to test the up dip near surface extension of the No.6 Vein. Two drill holes (JS2007 and JS2008) from a single set up were also completed to follow up on interesting gold values from a single historical hole (JS1302) on the SW zone discovered by SGX Resources in 2013. (Figure H1)

The 2nd phase of drilling was designed to follow up on the positive results obtained on the No.6 Vein area during the 1st phase program. Drill holes (JS2013 & JS2014) in the 2nd phase drill program evaluated the No. 6 Vein along strike and at depth to the SE.

JS2001 - 560297mE, 5336213mN, Az:200°, Dip: -45°
JS2002 - 560297mE, 5336213mN, Az:200°, Dip: -60°
JS2003 - 560297mE, 5336213mN, Az:200°, Dip: -70°

JS95-5

SURFACE

CAS

2.6 gpt Au/ 13.72m

6G,QcvBB

FZ,6G

6G,QvEp

6G

6D

FZ

Qcv

Qv

FZ/6G

FZ/6D

6G,Ep

JS2001
EOH: 60.0m

JS2002
EOH: 81.0m

JS2003
EOH: 101.75m

JS95-5
EOH: 92.37m

L512579

L200 E

160 180 200 220 240

320 300 280 260 240 220

Legend

overburden contact
Geological contact
Quartz vein

Geology

Fault Zones
Diorite
Mafic Intrusive
Gabbro
Volcanics

Note: Only JS 2000 series holes and select historic holes are on section for assessment report purposes.

0 5 10 20
Meters

Assays

grams per ton Au
< 0.25
0.25 - 0.5
0.5 - 1.5
1.5 - 2.5
> 2.5

Figure 8

Pelangio Exploration Inc.

Grenfell Project
Section 100N

Date: January, 2021 NAD 1983 UTM Zone 17N
Name: TS File: gren_sec100N

Two holes were also drilled to test two other NW trending structures in light of the excellent results obtained on the northwesterly trending No.6 Vein. A single hole (JS2009) was drilled to test the Shea Vein target and a single hole (JS2010) the Central Target. These holes were based on information obtained from limited historical drill data and information gleaned from historical level plan maps from the 250 level. A single hole (JS1311) drill tested the up-dip extension of the No.1 Vein on the 250 level which was reported to have returned 0.2 oz gold/ton over a width of 3 feet for a strike length of 180 feet on the 250 level (J. Laundry, P.Eng, 1985). All drill hole and related target areas are shown in the accompanying Figure 7 & 7A)

Detailed drill hole co-ordinate data and sample data are presented in the accompanying Table 1 and the significant results of the program are presented in the accompanying Table 2. A discussion of the drill hole results from specific targets areas from both the 1st and 2nd phases of drilling are discussed in the following sections.

TABLE 1: DRILL HOLE LOCATION DATA

HOLE NO.	NORTHING	EASTING	AZ. (Deg.)	DIP (Deg.)	LENGTH (m)	No. of Samples	No. of Assays
JS2001	560297.00	5336213.00	200.00	-45.00	60.00	47	47
JS2002	560297.00	5336213.00	200.00	-60.00	81.00	64	64
JS2003	560297.00	5336213.00	200.00	-70.00	101.75	75	75
JS2004	560318.00	5336214.00	197.00	-47.00	60.00	56	56
JS2005	560318.00	5336214.00	197.00	-60.00	125.50	105	105
JS2006	560318.00	5336214.00	197.00	-70.00	53.50	41	41
JS2007	559992.00	5336066.00	130.00	-45.00	90.00	70	70
JS2008	559992.00	5336066.00	130.00	-55.00	113.85	88	88
JS2009	560160	5336026	047	-51	81.20	69	69
JS2010	560249	5336087	047	-63	90.00	74	74
JS2011	560326	5336231	130	-62	90.00	71	71
JS2013	560325	5336177	020	-65	129.00	92	92
JS2014	560335	5336167	020	-67	150.00	115	115

Note: 77 blank and standards included beyond totals for individual holes shown above.

No 6 Vein Target (Holes JS2001-JS2006 & JS2013-JS2014) Figures 7, 7A, 8, 9, H1, 14, 15

In early 2020 the first drill fan with holes JS2001 to JS2003 were drilled to follow up on the historical Sedex hole JS955 which was thought to have intersected mineralization proximal to the near surface up dip projection of the No.6 Vein. Historical hole JS955 was reported to have returned 2.6 g/t gold over 13.72 meters with some higher-grade intercepts. Despite intersecting similar lithology and the same major fault structure noted as broken blocky core in the JS955 log no comparable zone of mineralization was detected in holes JS2001 to JS2003. These holes did however intersect a diorite intrusive unit which on occasion has poorly developed porphyritic texture. This unit is thought to be the actual No.6 Vein "Porphyry" described in the literature. (Fig.8) The unit itself is not gold bearing but gold mineralization as described below is distinctly apparent in the hanging wall of the unit.

The second fan of drilling (Holes JS2004 to JS2006) intersected both high grade gold and broad zones of gold mineralization in both gabbro and mafic volcanic units (see Table 1) on the hanging wall of a diorite intrusive and the hanging wall of a major fault

JS2004 - 560318mE, 5336214mN, Az:197°, Dip: -47°
JS2005 - 560318mE, 5336214mN, Az:197°, Dip: -60°
JS2006 - 560318mE, 5336214mN, Az:197°, Dip: -70°

JS95-6

SHAFT

SURFACE

CAS

2U.BB

MW

2.50 gpt Au/ 26.00m

2MS

FZ.2U

6G

1.32 gpt Au / 26.00m

JS2004
EOH: 60.0m

6D

QV

6U

JS2006
EOH: 53.5m

6G.Lx.EP

JS95-6
EOH: 88.41m

JS2005
EOH: 125.5m

L512579

L200 E

Legend

overburden contact

Geological contact

Quartz vein

Geology

Fault Zones

Diorite

Mafic Intrusive

Gabbro

Volcanics

Note: Only JS 2000 series holes and select historic holes are on section for assessment report purposes.

0 5 10 20
Meters

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

Figure 9

Pelangio Exploration Inc.

Grenfell Project
Section 80N

Date: January, 2021 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec80N

SURFACE

JS1311
JS1312

CASING

CASING

6G

0.85 gpt Au/ 8.00m

2U

QV

2U

JS1311
EOH: 65.0m

6G

6G

1.52 gpt Au/ 17.00m

6U

2.43 gpt Au/ 10.00m

19.5 gpt Au/ 1.00m

6G

L200 E

6D,por

6G

JS1312
EOH: 137.5m

160 180 200 220 240

320 300 280 260 240 220

Legend

- Overburden contact
- Geological contact
- Quartz vein

Geology

- Fault Zones
- Diorite
- Mafic Intrusive
- Gabbro
- Volcanics

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

0 5 10 20
Meters

Figure H1

Pelangio Exploration Inc.

Grenfell Project
Section 70N

Date: December, 2020 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec70N

JS2007 - 559992mE, 5336066mN, Az:130°, Dip: -45°
JS2008 - 559992mE, 5336066mN, Az:130°, Dip: -55°

SURFACE

JS1302

CAS

6G

2.85 gpt Au/ 8.00m
(SW Zone)

Qcv

6G

6D

6G

6U

6G

FZ

6G

JS2007
EOH: 90.00m

6U

6G

6G

JS2008
EOH: 113.85m

L522691

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

Note: Only JS 2000 series holes and select historic holes are on section for assessment report purposes.

Note:
Lithological Unit Legend in Appendix 1

0 5 10 20
Meters

Figure 10

Pelangio Exploration Inc.

Grenfell Project
Section SW Zone
Looking 40°

Date: January, 2021 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec_SW_Zone

zone (Fig. 9). The diorite unit exhibits a poorly developed porphyritic texture and this intrusive is thought to be the No.6 Vein actually described in literature. The steeply dipping gold zone in Fig.9 is thought to represent the No. 6 Vein gold zone. However, it is actually only spatially associated with the No.6 Vein "diorite porphyry" unit, as it is actually in the hanging wall of diorite porphyry. The down dip extension of the zone in Fig.9 is not accurately portrayed as Hole JS2006 deviated and went into the mine workings prior to crossing the extent of the zone noted in the upper holes JS2004 and JS2005.

It is possible that historical hole JS955 clipped the edge of the mineralized zone shown in Fig.8 on the footwall of the fault and holes JS2001 to JS2003 were likely drilled into a fault gap. Further drilling would be required on a section north of the Figure 8 section to test this concept and determine if the zone extends to the NW on the footwall of the fault.

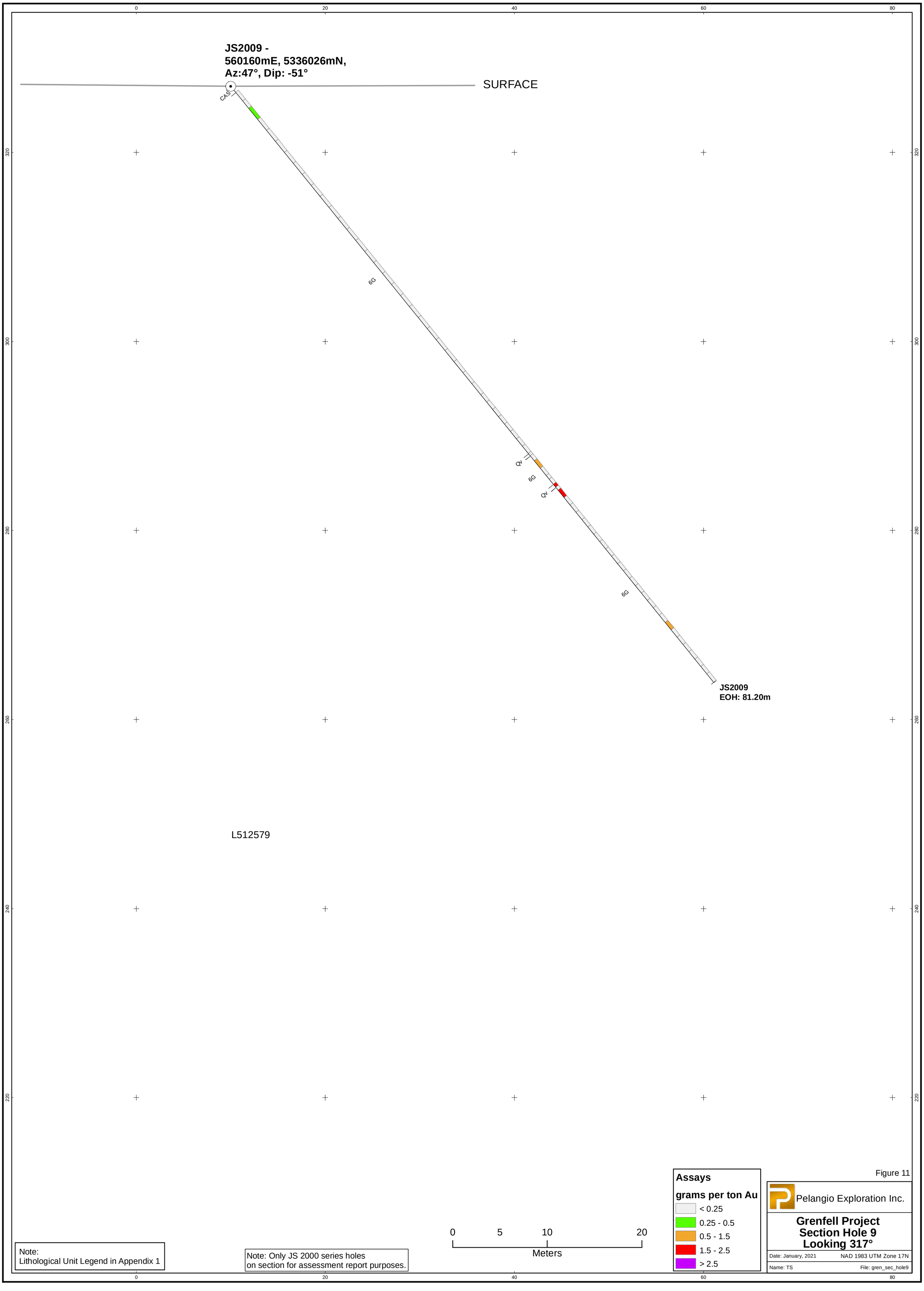
In the fall of 2020 two follow up drill holes (JS2013 & JS2014) were drilled to test the SE extension of the mineralized zone associated with the No.6 Vein. Hole JS2013 specifically targeted the intersection of the No.1 / No.6 vein intersection to further test for a potential broad zone of mineralization associated with the two vein systems. Approximately 10 meters above the interpreted intersection point there was a vein which returned 11.4 g/t over 0.6 meters but no related bulk zone. The hole did however intersect a possible new vein system in the hanging wall of the No.1 Vein system which assayed 10.95 g/t Au over 3 m. Hole JS2014 failed to intersect a zone of mineralization along the No.6 Vein trend but did intersect two new zones grading 1.45 g/t Au over 9 m. and 1.76 g/t Au over 4.5 m The hole was stopped prematurely in mineralization.

SW Target (Drill Hole JS2007 and JS2008) Figure 7 & 10

Holes JS2007 and JS2008 were drilled from a single collar location in an attempt to test the down dip and plunge of mineralization encountered in historical SGX hole JS1302. No significant mineralization was noted in the gabbroic host rock encountered. It has been postulated that hole JS1302 may have fortuitously intersected a NW trending structure similar and proximal to the Shea Vein (see Fig.6). A hole at right angles to the section line (Az 40 deg) under the mineralized intercept in historical hole JS1302 would be required to prove or disprove this idea. Alternatively, both holes may have been drilled under a more NW / SE zone with a steep plunge. Geophysical (IP) data suggest a NW trending target. More drilling would be required to investigate this concept. Some exposure exists here and it would be prudent to strip some of the rock prior to drilling to better determine the orientation of the mineralized zone on surface if possible.

Shea Vein Target (Drill Hole JS2009) Figure 7 & 11

The Shea Vein similar to the No.6 Vein target is a NW trending structure. It was explored via surface trenching and underground development in the 1930-1940 era by previous operators. (Fig.6 & 7) Limited information is available on the target but a significant drill hole intercept of 0.41 oz/ton gold over 3 ft was documented in a report by J. Laundry, P.Eng in a report in 1995. Figure 6 also show visible gold being documented on the surface trench. This visible gold was personally observed by the author. The purpose of


0
20
40
60
80
320
300
280
260
240
220
JS2009 -
560160mE, 5336026mN,
Az:47°, Dip: -51°
SURFACE
CASING
6G
Qv
6G
Qv
6G
JS2009
EOH: 81.20m
L512579
Note:
Lithological Unit Legend in Appendix 1
Note: Only JS 2000 series holes
on section for assessment report purposes.
0 5 10 20
Meters
Assays
grams per ton Au
< 0.25
0.25 - 0.5
0.5 - 1.5
1.5 - 2.5
> 2.5
Figure 11
Pelangio Exploration Inc.
Grenfell Project
Section Hole 9
Looking 317°
Date: January, 2021
NAD 1983 UTM Zone 17N
Name: TS
File: gren_sec_hole9

JS2010
560249mE, 5336087mN,
Az:47°, Dip: -63°

SURFACE

CAS

2MS

FZ

2MS

6G

FZ

2MS

FZ/2U

2P/2H

2U

6G,Por

6G

JS2010
EOH: 90.00m

L512579

Note:
Lithological Unit Legend in Appendix 1

Note: Only JS 2000 series holes
on section for assessment report purposes.

0 5 10 20
Meters

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

Figure 12

Pelangio Exploration Inc.

Grenfell Project
Section Hole 10
Looking 317°

Date: January, 2021 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec_hole10

JS2011 -
560326mE, 5336231mN,
Az:130°, Dip: -62°

SURFACE

CAS

6G

1.26 gpt Au over 6.80m
incl. 4.91 gpt Au over 1.50m
Hanging Wall of No. 1 Vein

2MS

FZ

6U

2U

6U

2MS

6L

6U

2MS

JS2011
EOH: 90.00m

L512579

JS2013
@87.67m

1.16 gpt Au
over 7.5m

6G

10.95 gpt Au
over 3.0m

JS2013
@125.5m

JS2014
@98.18m

2U

6U

2U/2HY

1.45 gpt Au
over 9.0m

JS2014
@139.54m

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

Note:
Lithological Unit Legend in Appendix 1

Note: Only JS 2000 series holes
on section for assessment report purposes.

0 5 10 20
Meters

Figure 13

Pelangio Exploration Inc.

Grenfell Project
Section Hole 11
Looking 40° +/-7.5m

Date: January, 2021 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec_hole11

hole JS2009 was to further evaluate both the Shea Vein narrow vein high grade potential as well as the potential for a broad zone of mineralization similar to that found proximal to No.6 Vein.

Drill hole JS2009 for the most part was drilled totally is gabbro with the exception of a couple of quartz believed to represent the actual up dip intersection of the Shea Vein. Little or no analysis has been done on the Grenfell property for other metals. In some instances, gabbro is known to be a favourable host for some platinum group metals. As a result, hole JS2009 was assayed for gold along with platinum and palladium.

Hole JS2009 returned a couple of small lower grade intercepts thought to be the up dip extension of the Shea Vein. No associated broader zone of lower grade mineralization in the surrounding wall rock was noted. All Pt and Pd assays were below detection limits.

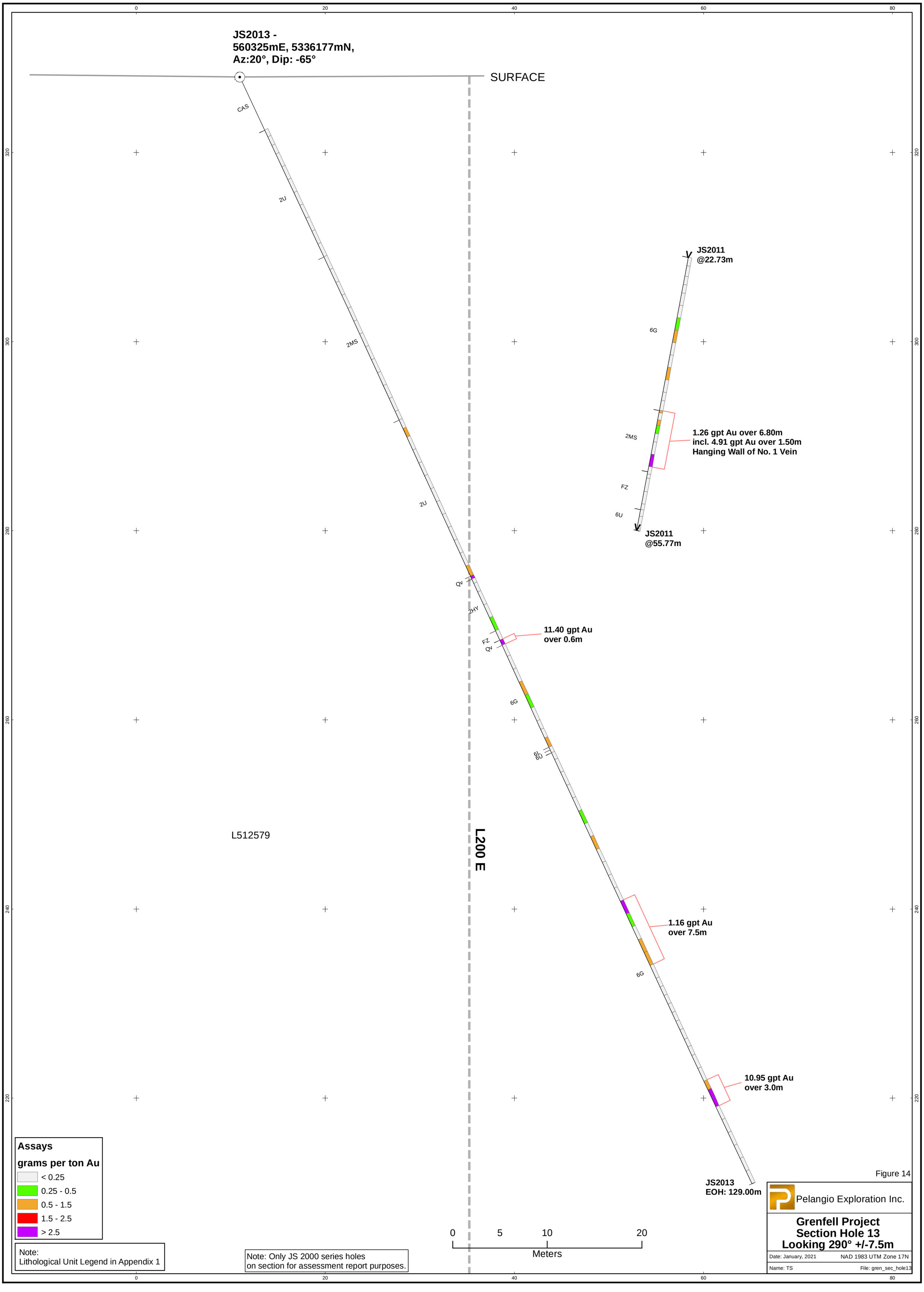
Central Target (Drill Hole JS2010) Figure 7 & 12

The Central Target is represented by a NW-SE oriented development drive located between the shaft and the Shea Vein. There is almost no information on the purpose of the development drive in the historical literature or plan data with the exception that at the start of the drive the letters "VG" are noted on a historical plan. The Central Target is thought to be a similar target to the Shea Vein and No.6 Vein due to the Central Target orientation. A single drill hole (JS2010) was drilled a short distance above the development drive to test the up dip potential for narrow vein high grade and possible associated broad near surface mineralized zones similar to that found at the No.6 Vein.

Hole JS2010 did not intersect any major vein or mineralized zone. No significant gold values were noted in this hole. The upper portion of the hole to 60.80 intersected mainly mafic volcanics and the latter portion of the hole was in a gabbro unit. The initial gabbro unit found at the contact of the volcanics was described as feldspar porphyritic. The reason for the 60 plus meter development drive on Central target on the 250 level remains unknown.

No.1 Vein (Drill Hole JS2011) Figure 7, 7A, & 13

A single hole was drilled to again evaluate both the up dip narrow vein potential of the No.1 Vein and any potential broad zones of lower grade mineralization. Historical data shows that very minimal drilling was completed to further evaluate the known 180 feet of strike length on this vein which returned 0.2 oz gold/ton over a width of 3 feet from chip sampling of a development drift on the 250 level. (Londry, J., P.Eng, 1995). Hole JS2011 did intersected some weakly anomalous values on the up dip projection of the vein; however a small low grade intercept was noted in the hanging wall of the vein which assayed 1.26 g/t Au over 6.80 m including a higher grade intercept of 4.91 g/t Au over 1.5 meters. Extensions of Hole JS2013 and JS2014 described previously demonstrated potential for new mineralization associated with the hanging wall of this vein system.


0
20
40
60
80
320
300
280
260
240
220
JS2013 -
560325mE, 5336177mN,
Az:20°, Dip: -65°
SURFACE
CAS
2U
2MS
2U
Qv
2HY
FZ
Qv
6G
6U
6G
2MS
FZ
6U
JS2011
@22.73m
1.26 gpt Au over 6.80m
incl. 4.91 gpt Au over 1.50m
Hanging Wall of No. 1 Vein
JS2011
@55.77m
11.40 gpt Au
over 0.6m
6G
6U
6G
1.16 gpt Au
over 7.5m
10.95 gpt Au
over 3.0m
JS2013
EOH: 129.00m
L512579
L200 E
Assays
grams per ton Au
< 0.25
0.25 - 0.5
0.5 - 1.5
1.5 - 2.5
> 2.5
Note:
Lithological Unit Legend in Appendix 1
Note: Only JS 2000 series holes
on section for assessment report purposes.
0
5
10
20
Meters
Figure 14
Pelangio Exploration Inc.
Grenfell Project
Section Hole 13
Looking 290° +/-7.5m
Date: January, 2021
NAD 1983 UTM Zone 17N
Name: TS
File: gren_sec_hole13

JS2014 -
560335mE, 5336167mN,
Az:20°, Dip: -67°

SURFACE

CAS

6D

2U

FZ

6U

2U,amg

2U

2MS

2U

L512579

JS2011
@50.97m

FZ

6U

2U

6U

2MS

6L

JS2011
@83.85m

2U

6U

2U

2U

FZ

2U

6U

L200 E

2U/2HY

1.45 gpt Au
over 9.0m

1.76 gpt Au
over 4.5m

JS2014
EOH: 150.00m

0 5 10 20
Meters

Assays

grams per ton Au

- < 0.25
- 0.25 - 0.5
- 0.5 - 1.5
- 1.5 - 2.5
- > 2.5

Note:
Lithological Unit Legend in Appendix 1

Note: Only JS 2000 series holes
on section for assessment report purposes.

Figure 15

Pelangio Exploration Inc.

Grenfell Project
Section Hole 14
Looking 290° +/-7.5m

Date: January, 2021 NAD 1983 UTM Zone 17N

Name: TS File: gren_sec_hole14

TABLE 2: SIGNIFICANT ASSAY INTERCEPTS

HOLE NO.	FROM	TO	METERS	G/T Au	G/T AU (CUT)	G/T Au (UNCUT)
JS2001	31.50	34.00	**2.50**	**0.937**		
includes	33.00	34.00	**1.00**	**1.60**		
J52001	54.50	55.00	**0.50**	**2.45**		
	58.50	59.50	**1.00**	**1.05**		
JS2002	53.00	54.00	**1.00**	**1.03**		
	56.00	56.85	**0.85**	**1.56**		
	63.00	64.50	**1.50**	**1.82**		
J52003	57.00	58.50	**1.50**	**1.06**		
JS2004	14.00	15.00	**1.00**	**3.73**		
JS2004	19.00	45.00	**26.00**	**2.50**		
includes	26.00	45.00	**19.00**	**3.18**		
	29.00	45.00	**16.00**	**3.23**		
	37.50	45.00	**7.50**	**4.81**		
	37.50	40.50	**3.00**	**9.39**		
J52005	33.00	59.00	**26.00**		**1.32**	
	33.00	59.00	**26.00**			**21.80**
Includes	36.26	38.00	**1.74**		**7.95**	
	36.26	38.00	**1.74**			**314.00**
includes	36.26	36.56	**0.30**	**1810.00**		
JS006	36.00	37.50	**1.50**	**1.09**		
	45.83	46.15	**0.32**	**26.50**		
J52009	54.20	56.00	**1.80**	**1.51**		
includes	54.20	54.60	**0.40**	**2.33**		
JS2011	41.20	48.00	**6.80**	**1.26**		
includes	46.50	48.00	**1.50**	**4.91**		
JS2013	57.00	58.50	**1.50**	**1.32**		
	65.60	66.20	**0.60**	**11.40**		
	70.50	72.00	**1.50**	**1.49**		
	77.00	78.05	**1.05**	**1.20**		
	96.00	103.50	**7.50**	**1.16**		
includes	96.00	97.50	**1.50**	**3.61**		
	117.00	120.00	**3.00**	**10.95**		
includes	118.00	119.00	**1.00**	**23.40**		
J52014	96.00	98.00	**2.00**	**2.31**		
includes	96.00	97.00	**1.00**	**3.60**		
	126.00	135.00	**9.00**	**1.45**		
	126.00	127.10	**1.10**	**4.02**		
includes	145.50	150.00	**4.50**	**1.76**		
includes	147.00	148.50	**1.50**	**3.46**		

Sampling Method and Approach:

The core handling and sampling procedures at Pelangio's GrenfellI Project met current industry standards. When drill core was received from the drill a first pass examination of core was carried out to check labeling of boxes and blocks within the hole. Upon completion of this work the core is logged using a consistent lithological table established by the Pelangio geologist and all pertinent geological information recorded in an excel spread sheet for easy coding and transfer to a database for plan and section work.

Intervals to be sampled were identified and marked on the core by a company geologist and the following sampling protocol carried out:

- Beginning and end of sample intervals are based on geology and mineralization noted from core logging.
- Maximum individual sample length equal to 1.6 metres but majority of samples at 1 to 1.5 meters with a few samples 15-30 cm. These smaller samples usually taken to sample a specific vein or a section with visible gold.
- Contiguous samples are collected along full length of mineralized diamond core.
- Core sample intervals were divided into half lengthways using a diamond saw.
- Half of each sample interval was collected in a new plastic bag and tagged with reference sample number. The samples were placed in rice bag sacks and sealed for delivery to the lab by company staff.
- The residual core half was returned to the original location in the core box along with a numbered sample tag for future reference.

With respect to the design of sampling intervals; the actual intervals were designed to provide contiguous sampling across the full width of the mineralized zones including shoulder samples. However, due to the nature of the known mineralization on the Grenfell Project all of the core was sampled as rock units with potential gold mineralization were not always evident. Particular attention was paid to the following general geological parameters to identify potential gold bearing zones for priority sampling included the following:

- Rock types: No restriction on rock type. Mineralized zones potentially occur in all rock types intersected in the project area.
- Rock deformation: Mineralized zones may include evidence for increased host rock deformation including foliation, ductile strain, and/or brittle fracturing including the following vein-filling minerals: quartz, carbonates, feldspars, sulphides (in particular chalcopyrite $\pm$ pyrite and pyrrhotite).
- Rock alteration: Mineralized zones may be marked by an increase in the following alteration types within the host rock: chloritic alteration, carbonate alteration, sericitization, sulphidization (in particular chalcopyrite $\pm$ pyrite and pyrrhotite) and silicification.
- Visible native gold

It should be noted that within the sampled section of core there were rare instances of

missing core due to due to drilling problems associated with poor or broken ground conditions. A notation of these ground conditions were made in logs. However, on an over all basis sample quality was considered excellent and representative of the observed mineralized intervals.

Sample Preparation, Analyses and Security:

Core from the Pelangio Exploration 2020 drilling program was logged and sampled at secured logging faciities. The core was logged and sampled by experienced geologists and technicians under the supervision of the project geologist as per protocols described in the previous section.

For Pelangio's Grenfell project the standard operating procedure relative to gold assays is to record in the log and/or data base if a standard gold fire assay or pulp metallic gold fire assay was completed. If a pulp metallic assay was completed it was put into the data base and taken as the most accurate representation of the sample and recorded in both the log and put into the data base. In the event of a duplicate assay completed on a sample such as a check by the lab the average of the two analysis was placed in the log and the data base. In some instances, a gravimetric assay was completed after a gold fire assay with an AA finish due to the presence of a higher grade sample. Both assays were recorded in the logs and the gravimetric sample was taken as the most accurate and placed in the data base.

Analysis for the Grenfell Project was completed at Actlabs in Timmins Ontario. All gold samples were fire assayed with and AA finish using industry standard fire assay procedures. (Actlabs Code 1A2-50) If the sample returned 5000 ppb gold or greater, the sample was re-assayed with a gravimetric finish. For gold and platinum group elements together, each sample was fire assayed with an ICP-OES finish (Actlabs Code 1C-OES-50).

Standard quality control procedures are present in the lab utilized. However, in addition to the quality control at the labs Pelangio also submitted certain quality control samples. A known "Standard Reference Material" sample (Oreas 221 standard) and a "Blank Sample" for a minimum of every 28 samples. More specifically each batch of 30 samples had at least one standard and blank for within the 30 samples submitted including the standard and blank. Details on the Oreas 221 standard are outlined in Appendix 3. Garden stone limestone samples from the hardware store were used as blanks. During the course of the program all standards and blank results were reviewed. A standard was considered to have failed if it did not meet the three standard deviation threshold. When a standard failed and the geologist deemed that significant mineralization was present the entire sample batch was re-assayed with a new standard. Batches with results not of significance were not re-assayed. Re-assayed batches can be seen in accompanying logs as all results including re-assayed batches were posted in logs.

Data Verification:

As described above exploration at Pelangio's Grenfell Project including core logging, sampling procedures and record keeping are industry standard. The author personally

supervised the entire program and was on site during the time the work was carried out. The author personally logged all drill core and supervised sampling technicians. Prior to completion of this current report the author reviewed all data base entries, drill logs, plans, and sections for errors prior to submission. From the material reviewed to date no major discrepancies were noted.

Conclusions and Recommendations:

Pelangio Exploration conducted two phases of drilling in 2020 to further evaluated the gold potential on its Grenfell Property in the Kirkland Lake area.

The salient points regarding this program are as follows:

Phase 1 Drilling

- Initial phase 1 drilling to evaluate the northwesterly trending No.6 Vein target returned significant gold mineralization in Holes JS2004 to JS2006. (see Table 1) Actual gold mineralization was found in the hanging wall and proximal to the No.6 Vein intrusive which is actually a poorly developed porphyritic diorite.

- Phase 1 drilling (Hole JS2007 and JS2008) on the SW target failed to obtain any significant results. The initial SGX discovery hole on the SW target may have fortuitously cut the edge of a NW trending structure (similar to proximal NW trending Shea Vein) at an acute angle and thus follow up hole JS2007 and JS2008 may have been drilled parallel to the NW trending zone. Alternatively, the holes may have went under the plunge of a more NE-SW striking zone, similar to what is suggested in historical geophysical data by SGX Resources. The drill hole intercept 2.85 g/t Au over 8m including 4.09 g/t Au over 4 meters and 9.41 g/t over 1 meter in SGX hole JS1302 on the SW zone by SGX resources remains unexplained.

Phase 2 Drilling

- Drill holes JS2013 and JS2014 were allocated to continue follow up on the southeasterly strike extension of the No.6 Vein in light of early positive results obtained in Pelangio's phase 1 drilling. Hole JS2013 targeted the intersection of the No.6 Vein and No.1 Vein mineralization in at attempt to define a broader chute at the 250 level mine workings. No substantial broad mineralized zone was noted; a small vein returned 11.40 g/t over 0.6 meters about 10 m. above the 250 (76 m.) level. Hole JS2013 when extended beyond the No.1/No.6 vein intersection did however intersect mineralization in the hanging wall of the No.1 Vein. These intercepts were 1.16 g/t Au over 7.5 meters and 10.95 g/t over 3 meters. Similarly, no extension of the No.6 Vein mineralization was found in JS2014. This hole did however intersect two new zones of mineralization in the hanging wall of the No.1 vein which assayed 1.45 g/t Au over 9 meters(including 4.02 g/t Au over 1.10 m) and 1.76 g/t Au over 4.5 meters (including 3.46 g/t over 1.5 m) . Hole JS2014 was unfortunately stopped in mineralization.

- A single hole (Hole JS2011) also targeted the up dip extension of the No.1 Vein. Weakly anomalous gold was noted at the up dip projection point of the No.1 Vein but in the hanging wall of the vein an intercept of 1.26 g/t Au over 6.80 meters was noted.

- Two holes JS2009 and JS2010 were drilled to test the Shea Vein target and the Central Target respectively. Both of these targets were drilled to further evaluate the narrow vein high grade potential and to evaluate any potential bulk zone mineralization. Two narrow low grade intercepts were noted on the up dip extension of the Shea Vein and no significant mineralization was noted in hole JS2010. The reason for the 60 plus meters of drifting on the Central Target on the 250 level is unknown with the exception that a level plan had "VG" marked at the start of the development drive. The amount of development on the Central Target appears excessive if there was only minimal visible gold.

The following recommendations should be considered regarding further work on the Grenfell Property:

- 1) All drill data and available mine level plan data should be modelled in Leapfrog or a similar system to ascertain any continuity of mineralization in and around the shaft area. Future drilling in this area should be considered contingent on results from the model data demonstrating further potential.

- 2) A drill hole should be allocated to test a coincident induced polarization and soil geochemical (MMI) on Line 3W between 450 and 500 N stations. (Old SGX Resources Grid) Approximately 200 meters of drilling is required to test this area.

- 3) Some funding should be allocated to test an airborne electromagnetic anomaly under the pond on the boundary between Lease 522687 and cell claim 208446 as documented in OGS P2256, Maisonville Twp geophysical map.

- 4) A drill hole or two should be allocated to try to further explain the drill hole intercept is SGX JS1302. This area has some rock exposure as the drill hole was collared in bedrock. Some stripping of the exposure may be beneficial prior to drilling to determine the orientation of the zone.

The more exact budget for all of the recommendations above would be defined upon completion of recommendation No. 1. The estimated cost of carrying out the model work in recommendation No.1 above is estimated at an initial cost of $20000.00.

Respectfully Submitted

J.Kevin Filo, P.Geo. (Ont #0220)

References:

Corfu, F., 1989, U-Pb Zircon Geochronology ins the Southwest Abitibi Greenstone Belt, Superior Province, Canadian Journal of Earth Science, Volume 26, No. 9, p. 1747-1763.

Dowaluck, H., 1988, Summary Report on the John Sirola Property of Neighbors Resources Inc., Grenfell Township, District of Temiskaming, Ontario, 49 p.

Filo, J.K., 1995, Otis J Exploration, Geological Report and Field Map, Internal Report from the Private Files of John Sirola, 5 p.

Filo, J.K., 1996, Sedex Mining Corp, Diamond Drill Report, Internal Report from the Private Files of John Sirola, 8 p.

Filo, J.K., 21013 SGX Resources, Diamond Drill Report, Internal Report form Private Files of J. K. Filo.

Grant, J.A., 1964, Bompas and Grenfell Townships, Ontario Department of Mines, Geological Report No. 30, 17p. Accompanied by Map 2060, scale 1:31,680.

Jensen, J.S., 1986, Mineralization and Volcanic Stratigraphy in the Western Part of the Abitibi Subprovince, Ministry of Northern Development and Mines, OGS Miscellaneous Paper 129, p.69-87.

Londrey, J.E., 1985, Report on the John Sirola Property, Grenfell Township, Larder Lake Mining Division, District of Temiskaming, Ontario, Internal Report from the Private Files of John Sirola, 13 p.

Montgomery, K., 1990, Property Evaluation Data for Gold Fields Canadian Mining Ltd, Internal Data from the Private Files of John Sirola, 7 p.

OGS, 1979: Airborne Electromagnetic and Total Intensity Magnetic Survey, Kirkland Lake Area, Maissonville Township, District of Temiskaming, by Questor Surveys Limited for the Ontario Geological Survey, Preliminary Map P.2256 Geophysical Services, Scale 1:20000. Survey and Compilation, February and March 1979.

Sirola, J., 1980, Compilation and Geological Report, Internal Report from the Private Files of John Sirola, 19 p.

Sirola, J., and Benner,R., 1981-1982, Geological Map of Leased Mining Claims 522687-522693 inclusive and 512579 Scale 1 cm to 30 m., Internal Data from the Private Files of John Sirola.

CERTIFICATE OF AUTHOR

I, J. Kevin Filo, P. Geo. do hereby certify that:

1. I am a consultant of:

   Pelangio Exploration
   Cedar Hill
   Connaught Ontario

2. I graduated with an Honours Bachelor of Science Degree in Geology from Laurentian University in Sudbury in 1980.

3. I am a member of the Association of Professional Geologists of Ontario (Reg. No. 0220).

4. I have worked as a geologist for a total of 40 years since my graduation from university.

5. I am responsible for a non- independent review of the current subject report and I was responsible for the planning and supervision of the recent drill program.

6. I am not aware of any material fact or material change with respect to the subject matter of the report that is not reflected in the report, the omission to disclose which would make the report misleading.

7. I am not independent of the issuer. I presently control a number of shares in Pelangio Exploration and I am the Vice President of Corporate Development for Pelangio Exploration.

Dated this 10 Day of January, 2021

Signature of Qualified Person
J. Kevin Filo, P.Geo. (Ont.#0220)

Appendix 1: Copy of Lithological Code for Drill Program

LEGEND

- 8U Diabase (All Ages) :
- 7U Felsic to Intermediate Intrusive
  - 7G Granite
  - 7GD Granodiorite, Quartz Monzonite
  - 7T Tonalite
  - 7S Syenite
  - 7M Monzonite
  - 7FP Feldspar Porphyry
  - 7QFP Quartz/Feldspar Porphyry
  - 7PA Pegmatite
  - 7A Aplite
  - 7F Felsite
- 6U Mafic to Ultramafic Intrusive
  - 6D Diorite, Trondhjemite
  - 6G Gabbro
  - 6A Anorthosite
  - 6P Peridotite, Pyroxenite
  - 6L Lamprophyre
- 5U Clastic Sediments
  - 5AR Argillite
    - 5ARGF Graphitic Argillite
  - 5GW Greywacke
  - 5CG Conglomerate
    - 5CGT Timiskaming Conglomerate
  - 5SS Sandstone
  - 5ST Siltstone
  - 5Q Quartzite
  - 5A Arkose
- 4U Chemical Sediments
  - 4IF Iron Formation
    - 4IFS Sulphide Facies
    - 4IFC Silicate Facies
    - 4IFO Oxide Facies
  - 4C Chert
  - 4IGF Graphite
- 3U Felsic to Intermediate Volcanics
  - 3R Rhyolite
  - 3D Dacite
  - 3A Andesite
  - 3T Trachyte
- 2U Mafic Volcanics
  - 2MS Massive
  - 2P Pillowed
  - 2FB Mafic Flow-Breccia
  - 2HY Mafic Hyaloclastite
  - 2VAR Variolitic
  - 2POR Porphyritic
- 1U Ultramafic Volcanics – Unsubdivided
  - 1TC Talc-Chlorite Altered
  - 1GCB Green-Carbonate Altered

ABBREVIATIONS

Textural

og	agglomerate
AZ,az	alteration zone
amy	amygdaloidal
FB,fb	flow breccia
fol	foliated
glom	glomerophyric
hy	hyaloclastic
htr	heterolithic
lap	lapilli
ms	massive
p	pillowed
por	porphyritic
sch	schistose
sfx	spinifex
t	tuffaceous
ves	vesicular
var	variolitic

Alteration

Ab	albitization
Ank	ankeritization
Bi	biotization
Cal	calcitic
Carb	carbonatization
Cb	carbon
Chl	chloritization
Ep	epidotization
Gcb	green carbonate
Hem	hematization
Lx	leucoxene
Pot	potassic
Ser	sericitization
Serp	serpentinization
Sil	silicification
Tc	talc
Tour	tourmaline

Intensity Code

Ank	weak
ANK	moderate
[ANK]	strong

Mineralization

Asp	arsenopyrite
Cl	clustered pyrite
Cpy	chalcopyrite
Ds	disseminated pyrite
Gn	galena
Mt	magnetite
Mo	molybdenite
Po	pyrrhotite
Py	pyrite
Sw	stockwork pyrite
V.G.	visible gold

Intensity Code

Cpy	trace to 1%
[Cpy]	1–3%
CPY	3–7%
[CPY]	7–15%
{CPY}	>15%

Veining

Av	ankerite
Cv	calcite
Epv	epidote
Hemv	hematite
Mtv	magnetite
Qv	quartz
Otourv	quartz–tourmaline
Qav	quartz ankerite
Qcv	quartz calcite
Tourv	tourmaline

Intensity Code

Qav	1–5%
QAV	5–15%
[QAV]	>15%

Structural

bd	bedded
bnd	banded
bx	breccia
bxd	brecciated
ct	contact
f	fault
FZ,fz	fault zone
flt	faulting
fl	flow
fr	fracture
g	gouge
s	shear
SZ,sz	shear zone
slk	slickenside

OTHER

fg	fine grained
mg	medium grained
cg	coarse grained
fmg	fine to medium grained
fcg	fine to coarse grained
int	intermittent
loc,l_	locally (local) eg lmag
mag	magnetic
mod	moderate
st	strong
vs	very strong
wk,w_	weak eg wmag

Revised : July/97

Appendix 2: Copy of Assay Sheets from Drill Core

Quality Analysis ... *Innovative Technologies*

Report No.: A20-01414
Report Date: 21-Feb-20
Date Submitted: 05-Feb-20
Your Reference: Grenfell

Pelangio Exploration Inc
1080 Michelano Drive
Timmins Ontario
Canada

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

178 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	QOP AA-Au (Au - Fire Assay AA)	2020-02-19 10:00:28
1A3-50-Timmins	QOP AA-Au (Au - Fire Assay Gravimetric)	2020-02-21 11:24:16

REPORT **A20-01414**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20501	7	
20502	5	
20503	< 5	
20504	72	
20505	23	
20506	10	
20507	8	
20508	9	
20509	29	
20510	< 5	
20511	< 5	
20512	18	
20513	254	
20514	3730	
20515	35	
20516	47	
20517	< 5	
20518	100	
20519	392	
20520	1060	
20521	635	
20522	1300	
20523	580	
20524	555	
20525	1040	
20526	3120	
20527	789	
20528	3520	
20529	3070	
20530	15	
20531	> 5000	9.35
20532	1540	
20533	362	
20534	17	
20535	531	
20536	629	
20537	1460	
20538	1140	
20539	> 5000	10.9
20540	1050	
20541	> 5000	7.89
20542	26	
20543	140	
20544	> 5000	5.12
20545	63	
20546	87	
20547	35	
20548	20	
20549	11	
20550	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20551	18	
20552	28	
20553	22	
20554	7	
20555	< 5	
20556	64	
20557	161	
20558	60	
20559	35	
20560	1070	
20561	147	
20562	24	
20563	86	
20564	< 5	
20565	17	
20566	640	
20567	9	
20568	249	
20569	7	
20570	< 5	
20571	80	
20572	15	
20573	288	
20574	122	
20575	15	
20576	12	
20577	66	
20578	156	
20579	33	
20580	1080	
20581	94	
20582	36	
20583	199	
20584	231	
20585	107	
20586	558	
20587	753	
20588	776	
20589	49	
20590	6	
20591	> 5000	1810
20592	4230	
20593	2370	
20594	1020	
20595	475	
20596	379	
20597	1490	
20598	566	
20599	463	
20600	1090	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20601	404	
20602	688	
20603	1530	
20604	557	
20605	52	
20606	173	
20607	221	
20608	228	
20609	90	
20610	< 5	
20611	4860	
20612	1700	
20613	328	
20614	169	
20615	171	
20616	293	
20617	19	
20618	12	
20619	8	
20620	1070	
20621	12	
20622	7	
20623	7	
20624	25	
20625	7	
20626	18	
20627	11	
20628	36	
20629	20	
20630	< 5	
20631	117	
20632	50	
20633	114	
20634	80	
20635	52	
20636	88	
20637	49	
20638	100	
20639	27	
20640	1050	
20641	80	
20642	121	
20643	145	
20644	103	
20645	229	
20646	17	
20647	8	
20648	6	
20649	< 5	
20650	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20651	13	
20652	7	
20653	10	
20654	115	
20655	5	
20656	5	
20657	< 5	
20658	7	
20659	94	
20660	5	
20661	7	
20662	6	
20663	< 5	
20664	8	
20665	12	
20666	< 5	
20667	< 5	
20668	5	
20669	7	
20670	1040	
20671	6	
20672	< 5	
20673	< 5	
20674	6	
20675	< 5	
20676	7	
20677	< 5	
20678	5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
SN75 Meas		8.94
SN75 Cert		8.67
OREAS 217 (Fire Assay) Meas	342	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	338	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	338	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	344	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	350	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	349	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	338	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	344	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	340	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	354	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	341	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	344	
OREAS 217 (Fire Assay) Cert	338	
OREAS 257 Meas		13.9
OREAS 257 Cert		14.18
20510 Orig	< 5	
20510 Dup	< 5	
20521 Orig	611	
20521 Dup	658	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20530 Orig	18	
20530 Dup	12	
20545 Orig	65	
20545 Dup	60	
20550 Orig	< 5	
20550 Split PREP DUP	< 5	
20554 Orig	8	
20554 Dup	6	
20564 Orig	7	
20564 Dup	< 5	
20579 Orig	29	
20579 Dup	37	
20589 Orig	48	
20589 Dup	49	
20591 Orig		1780
20591 Dup		1830
20599 Orig	434	
20599 Dup	492	
20601 Orig	404	
20601 Split PREP DUP	404	
20613 Orig	328	
20613 Dup	328	
20623 Orig	7	
20623 Dup	6	
20633 Orig	112	
20633 Dup	116	
20648 Orig	6	
20648 Dup	6	
20650 Orig	< 5	
20650 Split PREP DUP	5	
20657 Orig	5	
20657 Dup	< 5	
20667 Orig	< 5	
20667 Dup	5	
Method Blank	< 5	
Method Blank	5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank		< 0.02
Method Blank		< 0.02

Report No.: A20-01649
Report Date: 25-Feb-20
Date Submitted: 10-Feb-20
Your Reference: Feb 10/20

Pelangio Exploration Inc
1080 Michelano Drive
Timmins Ontario
Canada

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

220 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	QOP AA-Au (Au - Fire Assay AA)	2020-02-24 11:39:21
1A3-50-Timmins	QOP AA-Au (Au - Fire Assay Gravimetric)	2020-02-25 14:58:13

REPORT **A20-01649**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20679	264	
20680	< 5	
20681	6	
20682	31	
20683	27	
20684	8	
20685	12	
20686	27	
20687	17	
20688	34	
20689	604	
20690	1120	
20691	33	
20692	14	
20693	15	
20694	11	
20695	47	
20696	76	
20697	12	
20698	86	
20699	14	
20700	9	
20701	28	
20702	8	
20703	15	
20704	12	
20705	12	
20706	8	
20707	1090	
20708	68	
20709	20	
20710	5	
20711	17	
20712	92	
20713	80	
20714	113	
20715	298	
20716	25	
20717	> 5000	26.5
20718	73	
20719	78	
20720	1170	
20721	272	
20722	24	
20723	136	
20724	794	
20725	11	
20726	8	
20727	6	
20728	35	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20729	17	
20730	6	
20731	9	
20732	20	
20733	< 5	
20734	11	
20735	20	
20736	15	
20737	57	
20738	15	
20739	6	
20740	1090	
20741	6	
20742	< 5	
20743	< 5	
20744	7	
20745	9	
20746	6	
20747	< 5	
20748	6	
20749	5	
20750	6	
20751	6	
20752	< 5	
20753	8	
20754	8	
20755	< 5	
20756	< 5	
20757	< 5	
20758	< 5	
20759	< 5	
20760	< 5	
20761	6	
20762	6	
20763	5	
20764	6	
20765	6	
20766	< 5	
20767	< 5	
20768	8	
20769	13	
20770	1140	
20771	6	
20772	< 5	
20773	< 5	
20774	6	
20775	5	
20776	5	
20777	6	
20778	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20779	8	
20780	< 5	
20781	< 5	
20782	< 5	
20783	8	
20784	< 5	
20785	< 5	
20786	< 5	
20787	< 5	
20788	6	
20789	6	
20790	1140	
20791	6	
20792	< 5	
20793	6	
20794	< 5	
20795	7	
20796	< 5	
20797	< 5	
20798	< 5	
20799	10	
20800	< 5	
20801	< 5	
20802	12	
20803	10	
20804	9	
20805	5	
20806	18	
20807	6	
20808	331	
20809	193	
20810	6	
20811	73	
20812	8	
20813	6	
20814	9	
20815	19	
20816	9	
20817	9	
20818	10	
20819	6	
20820	1140	
20821	19	
20822	7	
20823	11	
20824	10	
20825	9	
20826	11	
20827	7	
20828	47	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20829	7	
20830	< 5	
20831	7	
20832	< 5	
20833	< 5	
20834	< 5	
20835	< 5	
20836	< 5	
20837	< 5	
20838	< 5	
20839	5	
20840	1120	
20841	24	
20842	< 5	
20843	< 5	
20844	< 5	
20845	< 5	
20846	< 5	
20847	5	
20848	7	
20849	12	
20850	14	
20851	6	
20852	25	
20853	12	
20854	9	
20855	7	
20856	9	
20857	10	
20858	16	
20859	6	
20860	< 5	
20861	12	
20862	19	
20863	204	
20864	9	
20865	8	
20866	7	
20867	< 5	
20868	< 5	
20869	< 5	
20870	1100	
20871	< 5	
20872	< 5	
20873	< 5	
20874	< 5	
20875	< 5	
20876	< 5	
20877	6	
20878	6	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20879	< 5	
20880	< 5	
20881	< 5	
20882	< 5	
20883	< 5	
20884	< 5	
20885	< 5	
20886	< 5	
20887	7	
20888	< 5	
20889	< 5	
20890	1120	
20891	6	
20892	5	
20893	5	
20894	< 5	
20895	< 5	
20896	5	
20897	< 5	
20898	12	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
SN75 Meas		9.01
SN75 Cert		8.67
OREAS 217 (Fire Assay) Meas	325	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	351	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	348	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	355	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	356	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	343	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	349	
OREAS 217 (Fire Assay) Cert	338	
OREAS 217 (Fire Assay) Meas	358	
OREAS 217 (Fire Assay) Cert	338	
OREAS 257 Meas		14.7
OREAS 257 Cert		14.18
20688 Orig	37	
20688 Dup	32	
20698 Orig	76	
20698 Dup	97	
20708 Orig	70	
20708 Dup	67	
20723 Orig	125	
20723 Dup	147	
20728 Orig	35	
20728 Split PREP DUP	34	
20732 Orig	22	
20732 Dup	18	
20742 Orig	< 5	
20742 Dup	11	
20757 Orig	< 5	
20757 Dup	< 5	
20767 Orig	< 5	
20767 Dup	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.02
Method Code	FA-AA	FA-GRA
20777 Orig	6	
20777 Dup	7	
20778 Orig	< 5	
20778 Split PREP DUP	27	
20791 Orig	7	
20791 Dup	6	
20801 Orig	< 5	
20801 Dup	< 5	
20811 Orig	76	
20811 Dup	71	
20826 Orig	10	
20826 Dup	12	
20828 Orig	47	
20828 Split PREP DUP	50	
20835 Orig	< 5	
20835 Dup	7	
20845 Orig	< 5	
20845 Dup	< 5	
20860 Orig	< 5	
20860 Dup	< 5	
20871 Orig	6	
20871 Dup	< 5	
20878 Orig	6	
20878 Split PREP DUP	6	
20879 Orig	< 5	
20879 Dup	< 5	
20894 Orig	< 5	
20894 Dup	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	5	
Method Blank	5	
Method Blank	< 5	
Method Blank	5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	5	
Method Blank	5	
Method Blank	< 5	
Method Blank		< 0.02
Method Blank		< 0.02
Method Blank	< 5	
Method Blank	< 5	

Quality Analysis ... **Actlabs** *Innovative Technologies*

Report No.: A20-01793
Report Date: 05-Mar-20
Date Submitted: 12-Feb-20
Your Reference: Grenfell

Pelangio Exploration Inc
1080 Michelano Drive
Timmins Ontario
Canada

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

122 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	QOP AA-Au (Au - Fire Assay AA)	2020-03-02 10:33:36

REPORT **A20-01793**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control Coordinator

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1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
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E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
20899	8
20900	29
20901	27
20902	< 5
20903	6
20904	7
20905	85
20906	22
20907	9
20908	< 5
20909	9
20910	< 5
20911	6
20912	43
20913	33
20914	21
20915	95
20916	25
20917	374
20918	44
20919	140
20920	1070
20921	214
20922	492
20923	1270
20924	1940
20925	91
20926	33
20927	5
20928	26
20929	103
20930	< 5
20931	34
20932	12
20933	37
20934	9
20935	14
20936	6
20937	54
20938	14
20939	22
20940	1060
20941	28
20942	64
20943	33
20944	230
20945	2450
20946	34
20947	364
20948	113
20949	1050

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
20950	137
20951	6
20952	10
20953	7
20954	219
20955	< 5
20956	864
20957	68
20958	195
20959	25
20960	< 5
20961	32
20962	15
20963	9
20964	11
20965	8
20966	590
20967	27
20968	34
20969	59
20970	1060
20971	32
20972	6
20973	< 5
20974	147
20975	29
20976	108
20977	< 5
20978	5
20979	11
20980	< 5
20981	104
20982	8
20983	10
20984	< 5
20985	44
20986	29
20987	37
20988	43
20989	24
20990	1080
20991	42
20992	23
20993	31
20994	73
20995	10
20996	1030
20997	40
20998	153
20999	1560
21000	18

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
21001	6
21002	7
21003	< 5
21004	19
21005	1820
21006	16
21007	< 5
21008	28
21009	< 5
21010	< 5
21011	20
21012	13
21013	5
21014	6
21015	8
21016	< 5
21017	16
21018	122
21019	140
21020	1070

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 217 (Fire Assay) Meas	327
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	322
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	320
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	325
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	327
OREAS 217 (Fire Assay) Cert	338
20908 Orig	< 5
20908 Dup	< 5
20918 Orig	39
20918 Dup	49
20928 Orig	25
20928 Dup	26
20943 Orig	30
20943 Dup	35
20948 Orig	113
20948 Split PREP DUP	124
20952 Orig	11
20952 Dup	8
20962 Orig	15
20962 Dup	14
20977 Orig	< 5
20977 Dup	< 5
20987 Orig	37
20987 Dup	37
20997 Orig	36
20997 Dup	44
20998 Orig	153
20998 Split PREP DUP	154
21011 Orig	19
21011 Dup	21
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5
Method Blank	< 5

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
Method Blank	< 5
Method Blank	< 5

Quality Analysis ... *Innovative Technologies*

Report No.: **A20-01900**
Report Date: **05-Mar-20**
Date Submitted: **14-Feb-20**
Your Reference: **Grenfell**

Pelangio Exploration Inc
1080 Michelano Drive
Timmins Ontario
Canada

ATTN: Kevin Filo

CERTIFICATE OF ANALYSIS

81 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-50-Timmins	QOP AA-Au (Au - Fire Assay AA)	2020-03-04 15:30:54

REPORT **A20-01900**

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control Coordinator

ACTIVATION LABORATORIES LTD.
1752 Riverside Drive, Timmins, Ontario, Canada, P4R 1N1
TELEPHONE +705 264-0123 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Timmins@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
21021	6
21022	16
21023	658
21024	421
21025	20
21026	10
21027	5
21028	36
21029	125
21030	< 5
21031	8
21032	< 5
21033	12
21034	24
21035	< 5
21036	6
21037	8
21038	10
21039	13
21040	1100
21041	16
21042	7
21043	87
21044	7
21045	76
21046	231
21047	21
21048	14
21049	773
21050	33
21051	13
21052	143
21053	13
21054	18
21055	14
21056	17
21057	406
21058	236
21059	882
21060	9
21061	123
21062	36
21063	1060
21064	338
21065	19
21066	13
21067	15
21068	17
21069	50
21070	1080
21071	23

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
21072	24
21073	34
21074	11
21075	54
21076	54
21077	127
21078	72
21079	22
21080	< 5
21081	212
21082	152
21083	7
21084	< 5
21085	5
21086	10
21087	7
21088	8
21089	5
21090	1110
21091	< 5
21092	13
21093	5
21094	6
21095	6
21096	6
21097	< 5
21098	< 5
21099	< 5
21100	5
21101	< 5

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
OREAS 217 (Fire Assay) Meas	340
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	344
OREAS 217 (Fire Assay) Cert	338
OREAS 217 (Fire Assay) Meas	349
OREAS 217 (Fire Assay) Cert	338
21030 Orig	< 5
21030 Dup	< 5
21041 Orig	17
21041 Dup	14
21050 Orig	32
21050 Dup	34
21065 Orig	20
21065 Dup	18
21071 Orig	23
21071 Split PREP DUP	20
21074 Orig	10
21074 Dup	12
21084 Orig	< 5
21084 Dup	5
21099 Orig	< 5
21099 Dup	< 5
Method Blank	< 5

Appendix 3: Specifications for Standard Oreas 221

ORE RESEARCH & EXPLORATION P/L ABN 28 006 859 856
37A Hosie Street · Bayswater North · VIC 3153 · AUSTRALIA
61 3 9729 0333 Fax 61 3 9729 8338
info@ore.com.au www.ore.com.au

CERTIFICATE OF ANALYSIS FOR

Gold Ore (Andy Well Gold Mine, Western Australia)

CERTIFIED REFERENCE MATERIAL

OREAS 221

Table 1. Certified Values, SDs, 95% Confidence and Tolerance Limits for OREAS 221.

Constituent	Certified Value	SD	95% Confidence Limits		95% Tolerance Limits	
			Low	High	Low	High
Pb Fire Assay						
Au, Gold (ppm)	1.062	0.036	1.051	1.074	1.057*	1.067*
Aqua Regia Digestion (sample weights 10-50g)						
Au, Gold (ppm)	1.042	0.039	1.026	1.058	1.037*	1.047*
Gas / Liquid Pychometry						
SG, Specific Gravity (Unity)	2.98	0.053	2.95	3.00	2.96	3.00

SI unit equivalents: ppm, parts per million ≡ mg/kg ≡ µg/g ≡ 0.0001 wt.% ≡ 1000 ppb, parts per billion.

*Gold Tolerance Limits for typical 30g fire assay and 25g aqua regia digestion methods are determined from 20 x 85mg INAA results and the Sampling Constant (Ingamells & Switzer, 1973).

Note 1: intervals may appear asymmetric due to rounding.

Note 2: the number of decimal places quoted does not imply accuracy of the certified value to this level but are given to minimise rounding errors when calculating 2SD and 3SD windows.

INTRODUCTION

OREAS reference materials are intended to provide a low cost method of evaluating and improving the quality of analysis of geological samples. To the geologist they provide a means of implementing quality control in analytical data sets generated in exploration from the grass roots level through to prospect evaluation, and in grade control at mining operations. To the analyst they provide an effective means of calibrating analytical equipment, assessing new techniques and routinely monitoring in-house procedures.

SOURCE MATERIALS

Certified Reference Material (CRM) OREAS 221 was prepared from a blend of Archean greenstone-hosted Wilber Lode primary ore from the Andy Well Gold Mine and barren Cambrian greenstone sourced from a quarry north of Melbourne, Australia. The Wilber Lode is a shear-hosted, narrow vein, quartz lode-style gold deposit situated within the Meekatharra-Wydgee greenstone belt in the Archean Yilgarn Craton of Western Australia. The common primary mineral assemblage, as stated by Mason and Harris (2011, 2012, cited in Hingston et al, 2014), is quartz, calcite, chlorite, fuchsite, pyrite, galena, sphalerite, chalcopyrite and gold. The host rock consists of a complex sequence of Archean meta-basalt and meta-porphyritic rocks derived from a primary mineralogy of albite, actinolite, chlorite, sericite, biotite, calcite, zoisite, muscovite, quartz and titanate. The Andy Well deposit is located approximately 45km north of Meekatharra in the Murchison region of Western Australia.

The approximate major and trace element composition of OREAS 221 is provided in Table 2. The non-certified values contained in this table are the means of duplicate assays from one laboratory.

COMMINUTION AND HOMOGENISATION PROCEDURES

The material constituting OREAS 221 was prepared in the following manner:

- Drying to constant mass at 105°C;
- Crushing and milling of the barren materials to 98% minus 75 microns;
- Crushing and milling of the ore material to 100% minus 30 microns;
- Blending in appropriate proportions to achieve the desired grade;
- Packaging in 60g units sealed in laminated foil pouches and 1kg units in plastic jars.

ANALYTICAL PROGRAM

Thirty commercial analytical laboratories participated in the program to certify gold (as reported in Table 1) by the following methods:

- Gold via 25-50g fire assay with AAS (24 labs) or ICP-OES (4 labs) finish;
- Instrumental neutron activation analysis for Au on 20 x 1g subsamples to confirm homogeneity (1 laboratory).
- Gold via 15-50g aqua regia digestion with ICP-MS (13 labs), AAS (7 labs) or ICP-OES (1 lab) finish. It is important to note that in the analytical industry there is no standardisation of the aqua regia digestion process. Aqua regia is a partial empirical digest and differences in recoveries for various analytes are commonplace. These are caused by variations in the digest conditions which can include the ratio of nitric to hydrochloric acids, acid strength, temperatures, leach times and secondary digestions.
- Specific gravity by gas (12 labs) or liquid (4 labs) pycnometry.

For the round robin program twenty 1.5kg test units were taken at predetermined intervals during the bagging stage, immediately following final blending, and are considered representative of the entire batch. The six samples received by each laboratory were obtained by taking two 110g scoop splits from each of three separate 1kg test units. This format enabled nested ANOVA treatment of the results to evaluate homogeneity, i.e. to ascertain whether between-unit variance is greater than within-unit variance.

Table 1 presents the certified values together with their associated 1SD's, 95% confidence and tolerance limits and Table 2 shows 66 indicative values for major and trace element composition. Tabulated results of all elements (including Au INAA analyses) together with uncorrected means, medians, standard deviations, relative standard deviations and percent deviation of lab means from the corrected mean of means (PDM^3) are presented in the detailed certification data for this CRM (**OREAS 221 DataPack - 1.1.181025_100056.xlsx**).

Results are also presented in scatter plots for gold by fire assay and aqua regia digestion (Figures 1 and 2, respectively) together with ±3SD (magenta) and ±5% (yellow) control lines and certified value (green line). Accepted individual results are coloured blue and individual and dataset outliers are identified in red and violet, respectively.

Table 2. Indicative Values for OREAS 221.

Constituent	Unit	Value	Constituent	Unit	Value	Constituent	Unit	Value
Pb Fire Assay								
Pd	ppb	*9.17*	Pt	ppb	*9.17*			
Borate Fusion XRF								
Al_2O_3	wt.%	*13.30*	K_2O	wt.%	*0.285*	P_2O_5	wt.%	*0.101*
CaO	wt.%	*9.80*	MgO	wt.%	*7.13*	S	wt.%	*0.197*
Cl	ppm	*10.0*	MnO	wt.%	*0.180*	SiO_2	wt.%	*50.15*
Fe_2O_3	wt.%	*11.70*	Na_2O	wt.%	*2.83*	TiO_2	wt.%	*1.08*
Thermogravimetry								
LOI^{1000}	wt.%	*3.36*						
Laser Ablation ICP-MS								
Ag	ppm	*0.250*	Hf	ppm	*1.86*	Sm	ppm	*2.34*
As	ppm	*9.10*	Ho	ppm	*0.82*	Sn	ppm	*1.50*
Ba	ppm	*150*	In	ppm	*0.075*	Sr	ppm	*111*
Be	ppm	*0.50*	La	ppm	*4.12*	Ta	ppm	*0.19*
Bi	ppm	*0.10*	Lu	ppm	*0.30*	Tb	ppm	*0.58*
Cd	ppm	*0.075*	Mn	wt.%	*0.146*	Te	ppm	*0.30*
Ce	ppm	*9.91*	Mo	ppm	*1.50*	Th	ppm	*0.43*
Co	ppm	*47.9*	Nb	ppm	*3.43*	Ti	wt.%	*0.636*
Cr	ppm	*254*	Nd	ppm	*8.12*	Tl	ppm	*< 0.2*
Cs	ppm	*0.19*	Ni	ppm	*111*	Tm	ppm	*0.31*
Cu	ppm	*152*	Pb	ppm	*5.50*	U	ppm	*0.025*
Dy	ppm	*3.53*	Pr	ppm	*1.55*	V	ppm	*306*
Er	ppm	*2.51*	Rb	ppm	*5.35*	W	ppm	*1.90*
Eu	ppm	*0.89*	Re	ppm	*0.008*	Y	ppm	*22.5*
Ga	ppm	*14.8*	Sb	ppm	*0.50*	Yb	ppm	*2.47*
Gd	ppm	*2.93*	Sc	ppm	*43.5*	Zn	ppm	*88*
Ge	ppm	*1.63*	Se	ppm	*< 5*	Zr	ppm	*63*

SI unit equivalents: ppm, parts per million ≡ mg/kg ≡ µg/g ≡ 0.0001 wt.% ≡ 1000 ppb, parts per billion.
Note: the number of significant figures reported is not a reflection of the level of certainty of stated values. They are instead an artefact of ORE's in-house CRM-specific LIMS.

STATISTICAL ANALYSIS

Certified Values, Confidence Limits, Standard Deviations and Tolerance Limits (Table 1) have been determined for each analyte following removal of individual, laboratory dataset (batch) and 3SD outliers (single iteration).

For individual outliers within a laboratory batch the z-score test is used in combination with a second method that determines the per cent deviation of the individual value from the batch median. Outliers in general are selected on the basis of z-scores > 2.5 and with per cent deviations (i) > 3 and (ii) more than three times the average absolute per cent deviation for the batch. In certain instances statistician's prerogative has been employed in discriminating outliers.

Each laboratory data set mean is tested for outlying status based on z-score discrimination and rejected if > 2.5. After individual and laboratory data set (batch) outliers have been eliminated a non-iterative 3 standard deviation filter is applied, with those values lying outside this window also relegated to outlying status.

Certified Values are the means of accepted laboratory means after outlier filtering. The INAA data (see Table 3) is omitted from determination of the certified value for Au and is used solely for the calculation of Tolerance Limits and homogeneity evaluation of OREAS 221.

95% Confidence Limits are inversely proportional to the number of participating laboratories and inter-laboratory agreement. It is a measure of the reliability of the certified value. A 95% confidence interval indicates a 95% probability that the true value of the analyte under consideration lies between the upper and lower limits. *95% Confidence Limits should not be used as control limits for laboratory performance.*

Indicative (uncertified) values (Table 2) are provided for the major and trace elements determined by borate fusion XRF (Al_2O_3 to TiO_2), laser ablation with ICP-MS (Ag to Zr), LOI at 1000°C and C + S by infrared combustion furnace and are the means of duplicate assays from Bureau Veritas, Perth. Additional indicative values by other analytical methods are present where the number of laboratories reporting a particular analyte is insufficient (< 5) to support certification or where inter-laboratory consensus is poor.

Standard Deviation values (1SDs) are reported in Table 1 and provide an indication of a level of performance that might reasonably be expected from a laboratory being monitored by this CRM in a QA/QC program. The SD's take into account errors attributable to measurement uncertainty and CRM variability. For an effective CRM the contribution of the latter should be negligible in comparison to measurement errors. The SD values thus include all sources of measurement uncertainty: between-lab variance, within-run variance (precision errors) and CRM variability. OREAS prepared reference materials have a level of homogeneity such that the observed variance from repeated analysis has its origin almost exclusively in the analytical process rather than the reference material itself.

The SD for each analyte's certified value is calculated from the same filtered data set used to determine the certified value, i.e. after removal of any individual, lab dataset (batch) and 3SD outliers (single iteration). These outliers can only be removed after the absolute homogeneity of the CRM has been independently established, i.e. the outliers must be confidently deemed to be analytical rather than arising from inhomogeneity of the CRM. **The standard deviation is then calculated for each analyte from the pooled accepted analyses generated from the certification program.**

In the application of SD's in monitoring performance it is important to note that not all laboratories function at the same level of proficiency and that different methods in use at a particular laboratory have differing levels of precision. Each laboratory has its own inherent SD (for a specific concentration level and analyte-method pair) based on the analytical process and this SD is not directly related to the round robin program.

The majority of data generated in the round robin program was produced by a selection of world class laboratories. The SD's thus generated are more constrained than those that would be produced across a randomly selected group of laboratories. To produce more generally achievable SD's the 'pooled' SD's provided in this report include inter-lab bias. This 'one size fits all' approach may require revision at the discretion of the QC manager concerned following careful scrutiny of QC control charts.

Homogeneity Evaluation

The homogeneity of gold has been determined by INAA using the reduced analytical subsample method which utilises the known relationship between standard deviation and analytical subsample weight (Ingamells and Switzer, 1973). In this approach the sample aliquot is substantially reduced to a point where most of the variability in replicate assays should be due to inhomogeneity of the reference material and measurement error becomes negligible.

Table 3. Neutron Activation Analysis of Au (in ppm) on 20 x 85mg subsamples showing the equivalent results scaled to a 30g sample mass typical of fire assay determination.

Replicate No	Au 85mg actual	Au 30g equivalent*
1	1.062	1.093
2	1.074	1.094
3	1.081	1.094
4	1.104	1.096
5	1.121	1.096
6	1.039	1.092
7	1.074	1.094
8	1.107	1.096
9	1.095	1.095
10	1.134	1.097
11	1.088	1.095
12	1.098	1.095
13	1.113	1.096
14	1.057	1.093
15	1.116	1.096
16	1.070	1.094
17	1.150	1.098
18	1.129	1.097
19	1.072	1.094
20	1.119	1.096
Mean	1.095	1.095
Median	1.096	1.095
Std Dev.	0.029	0.002
Rel Std Dev.	2.64%	0.140%

*Results calculated for a 30g equivalent sample mass using the formula: $x^{30g\ Eq} = \frac{(x^{INAA} - \bar{X}) \times RSD@30g}{RSD@85mg} + \bar{X}$

where $x^{30g\ Eq}$ = equivalent result calculated for a 30g sample mass
(x^{INAA}) = raw INAA result at 85mg
$\bar{X}$ = mean of 85mg INAA results

Table 3 above shows the INAA data determined on 20 x 85mg subsamples of OREAS 221. A subsample weight of 85 milligrams was employed and the 1RSD of 0.14% calculated for a 30g fire assay or aqua regia sample (2.64% at 85mg weights) confirms the high level of gold homogeneity in OREAS 221.

Please note that these RSD's and tolerance limits pertain to the homogeneity of the CRM only and should not be used as control limits for laboratory performance.

The gold homogeneity of OREAS 221 has also been evaluated in a **nested ANOVA** of the round robin program. Each of the thirty round robin laboratories received six samples per

CRM and these samples were made up of paired samples from three different, non-adjacent sampling intervals. The purpose of the ANOVA evaluation is to test that no statistically significant difference exists in the variance between-units to that of the variance within-units. This allows an assessment of homogeneity across the entire prepared batch of OREAS 221. The test was performed using the following parameters:

- Gold fire assay – 180 samples (30 laboratories each providing analyses on 3 pairs of samples);
- Gold aqua regia digestion – 120 samples (20 laboratories each providing analyses on 3 pairs of samples);
- Null Hypothesis, H_0: Between-unit variance is no greater than within-unit variance (reject H_0 if p-value < 0.05);
- Alternative Hypothesis, H_1: Between-unit variance is greater than within-unit variance.

P-values are a measure of probability where values less than 0.05 indicate a greater than 95% probability that the observed differences in within-unit and between-unit variances are real. The dataset was filtered for both individual and laboratory data set (batch) outliers prior to the calculation of the *p*-value. This process derived *p*-values of 0.47 for Au by fire assay and 0.82 for Au by aqua regia digestion. Both p-values are insignificant and the Null Hypothesis is retained.

It is important to note that ANOVA is not an absolute measure of homogeneity. Rather, it establishes whether or not the analytes are distributed in a similar manner throughout the packaging run of OREAS 221 and whether the variance between two subsamples from the same unit is statistically distinguishable to the variance from two subsamples taken from any two separate units. A reference material therefore, can possess poor absolute homogeneity yet still pass a relative homogeneity test if the within-unit heterogeneity is large and similar across all units.

Based on the statistical analysis of the results of the inter-laboratory certification program it can be concluded that OREAS 221 is fit-for-purpose as a certified reference material (see 'Intended Use' below).

Table 4 shows **Performance Gates** calculated for two and three standard deviations. As a guide these intervals may be regarded as warning or rejection for multiple 2SD outliers, or rejection for individual 3SD outliers in QC monitoring, although their precise application should be at the discretion of the QC manager concerned. A second method utilises a 5% window calculated directly from the certified value.

Standard deviation is also shown in relative percent for one, two and three relative standard deviations (1RSD, 2RSD and 3RSD) to facilitate an appreciation of the magnitude of these numbers and a comparison with the 5% window. Caution should be exercised when concentration levels approach lower limits of detection of the analytical methods employed as performance gates calculated from standard deviations tend to be excessively wide whereas those determined by the 5% method are too narrow. One approach used at commercial laboratories is to set the acceptance criteria at twice the detection level (DL) ± 10%.

i.e. Certified Value ± 10% ± 2DL (adapted from Govett, 1983)

Table 4. Pooled-Lab Performance Gates for OREAS 221.

Constituent	Certified Value	Absolute Standard Deviations					Relative Standard Deviations			5% window	
		1SD	2SD Low	2SD High	3SD Low	3SD High	1RSD	2RSD	3RSD	Low	High
Pb Fire Assay											
Au, ppm	1.062	0.036	0.989	1.135	0.953	1.171	3.43%	6.86%	10.28%	1.009	1.115
Aqua Regia Digestion											
Au, ppm	1.042	0.039	0.963	1.121	0.924	1.160	3.78%	7.55%	11.33%	0.990	1.094
Gas/Liquid Pycnometry											
SG, Unity	2.98	0.053	2.87	3.08	2.82	3.14	1.77%	3.53%	5.30%	2.83	3.13

SI unit equivalents: ppm, parts per million ≡ mg/kg ≡ µg/g ≡ 0.0001 wt.% ≡ 1000 ppb, parts per billion.

Note 1: intervals may appear asymmetric due to rounding.

Note 2: the number of decimal places quoted does not imply accuracy of the certified value to this level but are given to minimise rounding errors when calculating 2SD and 3SD windows.

PARTICIPATING LABORATORIES

1. Actlabs, Ancaster, Ontario, Canada
2. ALS, Brisbane, QLD, Australia
3. ALS, Lima, Peru
4. ALS, Loughrea, Galway, Ireland
5. ALS, Perth, WA, Australia
6. ALS, Vancouver, BC, Canada
7. Bureau Veritas, Abidjan, Cote D'ivoire
8. Bureau Veritas Commodities Canada Ltd, Vancouver, BC, Canada
9. Bureau Veritas Geoanalytical, Adelaide, SA, Australia
10. Bureau Veritas Geoanalytical, Perth, WA, Australia
11. Inspectorate (BV), Lima, Peru
12. Intertek Genalysis, Adelaide, SA, Australia
13. Intertek Genalysis, Perth, WA, Australia
14. Intertek Testing Services, Cupang, Muntinlupa, Philippines
15. MinAnalytical Services, Perth, WA, Australia
16. Nagrom, Perth, WA, Australia
17. Newcrest Services Laboratory (NSL), Orange, NSW, Australia
18. PT Geoservices Ltd, Cikarang, Jakarta Raya, Indonesia
19. PT Intertek Utama Services, Jakarta Timur, DKI Jakarta, Indonesia
20. SGS, Randfontein, Gauteng, South Africa
21. SGS Australia Mineral Services, Kalgoorlie, WA, Australia
22. SGS Australia Mineral Services, Perth, WA, Australia
23. SGS del Peru, Lima, Peru
24. SGS Lakefield Research Ltd, Lakefield, Ontario, Canada
25. SGS Mineral Services, Townsville, QLD, Australia
26. Shiva Analyticals Ltd, Bangalore North, Karnataka, India
27. Sucofindo Mineral Lab, Cibitung, West Java, Indonesia
28. Sucofindo Mineral Lab, Timika, Papua, Indonesia

Please note: The above numbered alphabetical list of participating laboratories does not reflect the Lab ID numbering on the scatter plots below.

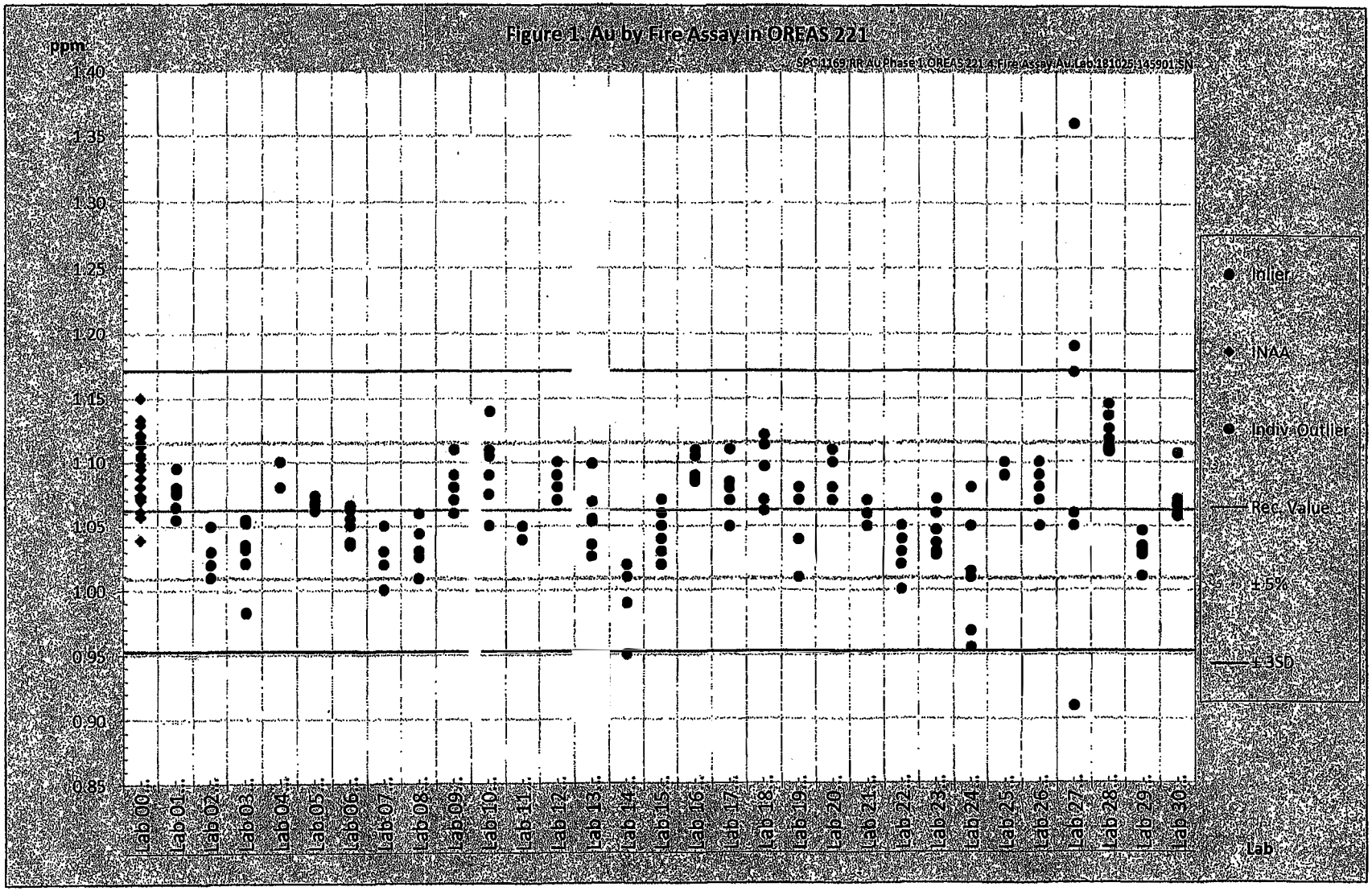
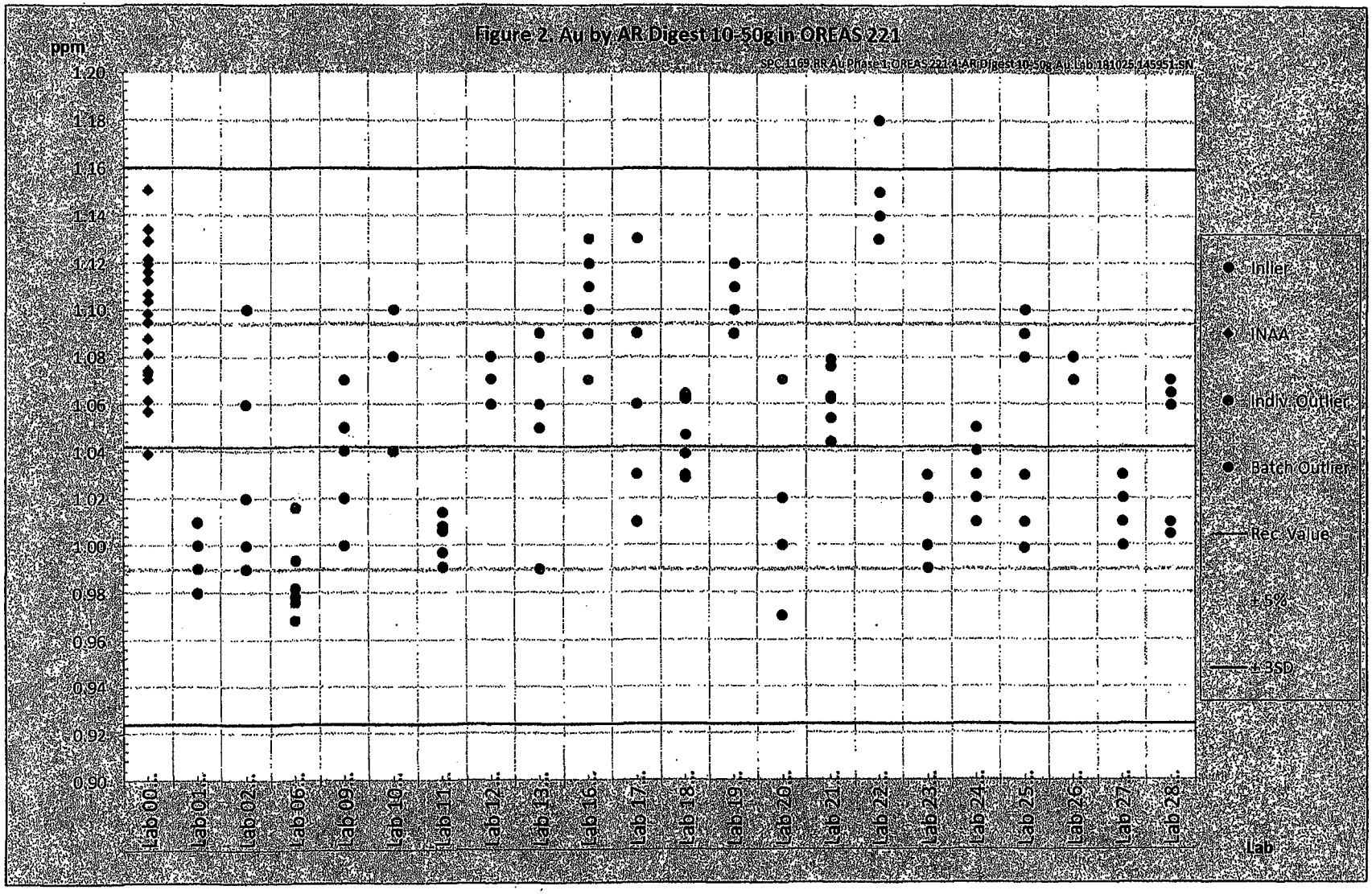


Figure 1. Au by Fire Assay in OREAS 221
SPC 11691RP AU Phase 1 OREAS 221 4 Fire Assay Au Lab 181025 145901.SN
ppm
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
0.95
0.90
0.85
Lab 00
Lab 01
Lab 02
Lab 03
Lab 04
Lab 05
Lab 06
Lab 07
Lab 08
Lab 09
Lab 10
Lab 11
Lab 12
Lab 13
Lab 14
Lab 15
Lab 16
Lab 17
Lab 18
Lab 19
Lab 20
Lab 21
Lab 22
Lab 23
Lab 24
Lab 25
Lab 26
Lab 27
Lab 28
Lab 29
Lab 30
Lab
Inlier
INAA
Indiv Outlier
Rec. Value
±5%
±3Sb

Figure 2: Au by AR Digest 10-50g in OREAS 221



PREPARER AND SUPPLIER

Certified reference material OREAS 221 is prepared, certified and supplied by:

ORE RESEARCH & EXPLORATION

ORE Research & Exploration Pty Ltd
37A Hosie Street
Bayswater North VIC 3153
AUSTRALIA

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Web: www.ore.com.au
Email: info@ore.com.au

It is available in unit sizes of 60g (single-use laminated foil pouches) and 1kg (plastic jars).

METROLOGICAL TRACEABILITY

The analytical samples were selected in a manner to represent the entire batch of prepared CRM. This 'representivity' was maintained in each submitted laboratory sample batch and ensures the user that the data is traceable from sample selection through to the analytical results that underlie the consensus values. Each analytical data set has been validated by its assayer through the inclusion of internal reference materials and QC checks during analysis.

The laboratories were chosen on the basis of their competence (from past performance in inter-laboratory programs undertaken by ORE Pty Ltd) for a particular analytical method, analyte or analyte suite, and sample matrix. Most of these laboratories have and maintain ISO 17025 accreditation. The certified values presented in this report are calculated from the means of accepted data following robust statistical treatment as detailed in this report.

Guide ISO/TR 16476:2016, section 5.3.1 describes metrological traceability in reference materials as it pertains to the transformation of the measurand. In this section it states, *"Although the determination of the property value itself can be made traceable to appropriate units through, for example, calibration of the measurement equipment used, steps like the transformation of the sample from one physical (chemical) state to another cannot. Such transformations may only be compared with a reference (when available), or among themselves. For some transformations, reference methods have been defined and may be used in certification projects to evaluate the uncertainty associated with such a transformation. In other cases,* ***only a comparison among different laboratories using the same method is possible. In this case, certification takes place on the basis of agreement among independent measurement results*** *(see ISO Guide 35:2006, Clause 10)."*

COMMUTABILITY

The measurements of the results that underlie the certified values contained in this report were undertaken by methods involving pre-treatment (digestion/fusion) of the sample. This served to reduce the sample to a simple and well understood form permitting calibration using simple solutions of the CRM. Due to these methods being well understood and highly effective, commutability is not an issue for this CRM. All OREAS CRMs are sourced from natural ore minerals meaning they will display similar behaviour as routine 'field' samples in the relevant measurement process. Care should be taken to ensure 'matrix matching' as close as practically achievable. The matrix and mineralisation style of the CRM is described in the 'Source Material' section and users should select appropriate CRMs matching these attributes to their field samples.

INTENDED USE

OREAS 221 is intended to cover all activities needed to produce a measurement result. This includes extraction, possible separation steps and the actual measurement process (the signal producing step). OREAS 221 may be used to calibrate the entire procedure by producing a pure substance CRM transformed into a calibration solution.

OREAS 221 is intended for the following uses:

- For the monitoring of laboratory performance in the analysis of gold by fire assay, gold by aqua regia digestion and specific gravity by pycnometry in geological samples;
- For the verification of analytical methods (gold fire assay, gold aqua regia digestion and specific gravity by pycnometry);
- For the calibration of instruments used in the determination of gold or specific gravity.

STABILITY AND STORAGE INSTRUCTIONS

OREAS 221 has been prepared from primary gold ore diluted with barren greenstone. It is low in reactive sulphide (~0.20 wt.%) and in its unopened state and under normal conditions of storage has a shelf life beyond ten years. Its stability will be monitored at regular intervals and purchasers notified if any changes are observed.

INSTRUCTIONS FOR CORRECT USE

The certified values for OREAS 221 refer to the concentration levels in its packaged state. There is no need for drying prior to weighing and analysis.

HANDLING INSTRUCTIONS

Fine powders pose a risk to eyes and lungs and therefore standard precautions such as the use of safety glasses and dust masks are advised.

LEGAL NOTICE

Ore Research & Exploration Pty Ltd has prepared and statistically evaluated the property values of this reference material to the best of its ability. The Purchaser by receipt hereof releases and indemnifies Ore Research & Exploration Pty Ltd from and against all liability and costs arising from the use of this material and information.

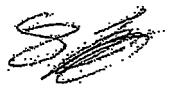
DOCUMENT HISTORY

Revision No	Date	Changes applied
1	25th Oct, 2018	Replaced original INAA data with new improved INAA data (a more precise method became available).
0	22nd Dec, 2016	First publication.

QMS ACCREDITED

ORE Pty Ltd is accredited to ISO 9001:2015 by Lloyd's Register Quality Assurance Ltd for its quality management system including development, manufacturing, certification and supply of CRMs.

CERTIFYING OFFICER



25th October, 2018

Craig Hamlyn (B.Sc. Hons - Geology), Technical Manager - ORE P/L

REFERENCES

Govett, G.J.S. (1983), ed. Handbook of Exploration Geochemistry, Volume 2: Statistics and Data Analysis in Geochemical Prospecting (Variations of accuracy and precision).

Hingston, R., Wellman, T. and Stemadt, G. (2014), The Geology of the Wilber Deposit, Andy Well Gold Project, Murchison District, Western Australia (pages 55-63, 9th International Mining Geology Conference 2014 - Proceedings - AusIMM).

Ingamells, C. O. and Switzer, P. (1973), Talanta 20, 547-568.

ISO Guide 30 (2015), Terms and definitions used in connection with reference materials.

ISO Guide 31 (2015), Reference materials – Contents of certificates and labels.

ISO Guide 3207 (1975), Statistical interpretation of data - Determination of a statistical tolerance interval.

ISO Guide 35 (2017), Certification of reference materials - General and statistical principals.

Year 2020 Diamond Drilling Program Report

On The

Grenfell Property

Larder Lake Mining Division
District of Timiskaming
Province of Ontario

For

Pelangio Exploration

Cedar Hill

Connaught, Ontario

Part II of II

Drill Logs

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area
DDH: JS2001 **Azimuth/Dip: 200/-45**
Core Size: NQ **Tests: see last page**
CLAIM: L512579 **EOH:60 m.**

Grid Location: N/A See UTM Coordinates
UTM:560297E 5336213N Nad 83 Zone 17
Date Started: Jan.27 2020 Date Completed: Jan.28 2020
Core Storage: Pelangio Field Office Connaught Ontario.

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Completion of Core Logging:
Feb.5 2020

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	2.30	Casing	CAS	Note, casing left in hole.										
2.30	36.00	Gabbro	6G	This unit has a weakly bleached light grey color on the	20899	2.30	3.00	0.70	8	0.008				
				dry surface. The unit is mainly coarse grained with	20900	3.00	4.50	1.50	29	0.029				
				some minor fine to medium grained sections. The	20901	4.50	6.00	1.50	27	0.027				
				mineralogical make up of the unit is plagioclase, ferro mag	20902	6.00	7.50	1.50	< 5	<0.005				
				minerals (mainly amphiboles) and some quartz. The unit	20903	7.50	9.00	1.50	6	0.006				
				has some coarse magnetite grains in many instances.	20904	9.00	10.50	1.50	7	0.007				
				The unit is very hard but can be scrathced with a knife	20905	10.50	12.00	1.50	85	0.085				
				with some effort. The unit has no HCL reaction. From 2.3	20906	12.00	13.50	1.50	22	0.022				
				to 19 meters strongly magnetic but beyond 19 m to 36 m	20907	13.50	14.70	0.70	9	0.009				
				more sporadic response to magnet. Very minimal quartz	20908	14.70	15.10	0.40	< 5	<0.005				
				or quartz calicite veinlets / stringers. Of note is a small	20909	15.10	16.50	1.40	9	0.009				
				quartz calcite stinger from 14.85 to 15 associated with	20910	blank			< 5	<0.005				
				a slip at 10 deg to CA. and a grey black quartz veinlet from	20911	16.50	18.00	1.50	6	0.006				
				32.90-32.95 at 88 deg to CA. This interval is considered	20912	18.00	19.50	1.50	43	0.043				
				fairly competent in appearance despite a number of slip	20913	19.50	21.00	1.50	33	0.033				
				planes at 5-15 deg to CA. and a number of fractures at	20914	21.00	22.50	1.50	21	0.021				
				60,45, and 30 deg to CA. Small broken blocky fault zone	20915	22.50	24.00	1.50	95	0.095				
				at 10 deg to CA from 9.70 to 10 m. Some patchy epidote	20916	24.00	25.50	1.50	25	0.025				
				noted in unit over very short intervals and a few epidote	20917	25.50	27.00	1.50	374	0.374				
				stringers also present. Sparse pyrite content in this unit	20918	27.00	28.50	1.50	44	0.044				
				estimate of trace to 0.5% maximum. Lower contact ground.	20919	28.50	30.00	1.50	140	0.14				
					20920	std221			1070	1.07				
36.00	39.80	Diorite	6D	This is a fine to medium grained unit with quartz and	20921	30.00	31.50	1.50	214	0.214				
				plagioclase as primary minerals. Unit ranges from grey in	20922	31.50	33.00	1.50	492	0.492				
				color a light salmon color as it is weakly hematite altered.	20923	33.00	33.50	0.50	1270	1.27				
				There is some very fine disseminated pyrite present	20924	33.50	34.00	0.50	1940	1.94				
				throughout the unit, estimate of 2% plus overall, locally 4%	20925	34.00	35.00	1.00	91	0.091				
				over 10-15 cm intervals. A few very minor quartz carb	20926	35.00	36.00	1.00	33	0.033				
				microstringers observed, not significant. Relatively										
				competent unit with a fair number of minor slips at 10-15										
				deg to CA. Some fractures generally at 60 deg to CA. Unit										
				has a weak HCl reaction and it is non magnetic. Unit is of										
				moderate hardness and relatively easy to scratch with										
				knife. Lower contact and start of fault at 39.80 marked										
				by oxidized slip plane oriented at 20 deg to CA.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
39.80	44.60	Major Fault Zone	FZ	This section of core is basically ground rubble with	20927	36.00	37.00	1.00	5	0.005				
				numerous slip planes and some associated gouge.	20928	37.00	38.00	1.00	26	0.026				
				Initially from 39.80 to 41 fault is host in diorite dyke	20929	38.00	39.00	1.00	103	0.103				
				described immediately above but beyond 41.0 to end of	20930	blank			< 5	<0.005				
				fault zone primarily a coarse grained gabbro similar to that	20931	39.00	39.80	0.80	34	0.034				
				described in intial interval in this hole. Some magnetite	20932	39.80	41.00	1.20	12	0.012				
				noted in gabbro within fault zone. Aslo two small diorite	20933	41.00	42.00	1.00	37	0.037				
				dykes noted within fault intruding gabbro unit from 43	20934	42.00	43.00	1.00	9	0.009				
				to 43.50 & 43.95 to 44.10. Lower contact of fault ground.	20935	43.00	44.10	1.10	14	0.014				
					20936	44.10	44.60	0.50	6	0.006				
44.60	60.00	Gabbro	6G	Again a very coarse grained light grey colored gabbro	20937	44.60	45.00	0.40	54	0.054				
				with plagioclase appearing to be more dominant mineral	20938	45.00	46.50	1.50	14	0.014				
				and hence the lighter color. The unit is strongy magnetic	20939	46.50	48.00	1.50	22	0.022				
				and magnetite grains visible in unit. The gabbro has no	20940	std221			1060	1.06				
				HCL reaction and it is fairly hard and difficult to scratch	20941	48.00	49.50	1.50	28	0.028				
				with knife. Some minor patchy epidote alteration noted	20942	49.50	51.00	1.50	64	0.064				
				particularily in last few meters of unit and some minor	20943	51.00	52.50	1.50	33	0.033				
				epidote stringers as well. A small granitic dyke a couple	20944	52.50	54.00	1.50	230	0.23				
				of cm wide noted running sub parallel to CA from about	20945	54.00	54.50	0.50	2450	2.45				
				53.85 to 54.30. A few quartz and quartz calcite stringers	20946	54.50	55.50	1.00	34	0.034				
				and veinlets noted; not significant for the most part. Most	20947	55.50	57.00	1.50	364	0.364				
				notable is a quartz veinlet from 54.40-54.50 at about 10 deg	20948	57.00	58.50	1.50	113	0.113				
				to CA and two smoky black qurtz veinlets less than 0.5 cm	20949	58.50	59.50	1.00	1050	1.05				
				each that cross cut each other at 59.6 m. These are	20950	59.50	60.00	0.50	137	0.137				
				oriented at 45 deg to CA and 30 deg to CA. A few quartz										
				ankerite stringers noted in last 10 cm of hole. Very minimal										
				pyrite noted, estimate of trace to 0.5% max; exception is										
				first meter below upper contact where there is perhaps										
				1-2%, some minor leucoxene noted in this section as well.										
				Overall very competent interval but a number of slips noted										
				in the 10-15 deg to CA range. Some fractures noted as										
				well at 60 deg to CA, occassional qtz stringer in this interval										
				in similar orientation.										
				EOH 60.00 M										
				Core stored at Pelangio field office in Connaught Ontario										
				Test at 60 m: Test at 211.50 Az and corrected 200 Az and										
				dip of -44.60.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area | **Grid Location: N/A See UTM Coordinates** | **Drill Company:** | **Completed Logging**
DDH: JS2002 | **Azimuth/Dip: 200/-60** | **UTM:560297E 5336213N Nad 83 Zone 17** | **NPLH Drilling** | **Feb. 7 2020**
Core Size: NQ | **Tests: see last page** | **Date Started: Jan.28 2020 Date Completed: Jan.29 2020** | **Logged by:**
CLAIM: L512579 | **EOH: 81 m.** | **Core Storage: Pelangio Field Office Connaught Ontario.** | **K. Filo**

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	2.00	Casing	CAS	Note, casing left in hole.										
2.00	42.25	Gabbro	6G	At 2.00 to 36.00 m	20951	2.00	3.00	1.00	6	0.006				
				This is a typical gabbro unit as described in other holes	20952	3.00	4.50	1.50	10	0.01				
				from this program. From a mineralogical perspective the	20953	4.50	6.00	1.50	7	0.007				
				unit is composed of plagioclase feldsapar, ferro mag	20954	6.00	7.50	1.50	219	0.219				
				minerals (amphiboles mainly) and some quartz. The color	20955	7.50	9.00	1.50	< 5	<0.005				
				of the gabbro varies, generally lighter grey with more	20956	9.00	10.50	1.50	864	0.864				
				plagioclase content as is the case with this particular	20957	10.50	12.00	1.50	68	0.068				
				interval. The unit is very hard but can be scratched with	20958	12.00	13.50	1.50	195	0.195				
				some effort and the unit has no HCL reaction. This interval	20959	13.50	15.00	1.50	25	0.025				
				is strongly magnetic, some magnetite noted. A few minor	20960	blank			< 5	<0.005				
				quartz and quartz calcite stringers noted but fairly rare.	20961	15.00	16.50	1.50	32	0.032				
				These stringers and veinlets generally 2-3 cm at the most.	20962	16.50	18.00	1.50	15	0.015				
				Small stringer of quartz noted at 8.98-9 m., quartz calcite	20963	18.00	19.50	1.50	9	0.009				
				stringer at 12.77 to 12.80 and 22.54-22.58. All of these are	20964	19.50	21.00	1.50	11	0.011				
				at 85-90 deg to CA. Local patchy epidote present and some	20965	21.00	22.50	1.50	8	0.008				
				stingers of epidote noted as well. Pyrite content in this	20966	22.50	24.00	1.50	590	0.59				
				unit is minimal, etstimated of trace to 0.5%. With regard to	20967	24.00	25.50	1.50	27	0.027				
				structure, a number of minor slips present subparallel to CA	20968	25.50	27.00	1.50	34	0.034				
				to about 10-15 deg to CA in general. Also fractures	20969	27.00	28.50	1.50	59	0.059				
				throughout but overall still a competent unit. Of note one	20970	std221			1060	1.06				
				set of fractures common at 35-40 deg o CA.	20971	28.50	30.00	1.50	32	0.032				
					20972	30.00	31.50	1.50	6	0.006				
				At 36.00 to 42.25	20973	31.50	33.00	1.50	< 5	<0.005				
				This gabbro unit more dark grey in color and more medium	20974	33.00	34.50	1.50	147	0.147				
				grained, a vein of quartz a couple of cm wide noted at	20975	34.50	36.00	1.50	29	0.029				
				start of interval running subparallel to core axis from	20976	36.00	36.40	0.40	108	0.108				
				36.10 to 36.30 m. The fine grained dark grey gabbro unit	20977	36.40	37.00	0.60	< 5	<0.005				
				unit within this interval continues to about 38.75 meters. It	20978	37.00	38.00	1.00	5	0.005				
				is noted that this initial interval is exceptionally hard	20979	38.00	38.75	0.75	11	0.011				
				silicified? This initial interval grades into gabbro typical of	20980	blank			< 5	<0.005				
				that described from 2.00 to 36 above. In this particular	20981	38.75	40.00	1.25	104	0.104				
				section magnetic only from 39 meters to lower	20982	40.00	41.00	1.00	8	0.008				
				contact and no HCL response in any portion of this unit.	20983	41.00	42.25	1.25	10	0.01				
				Minor fault noted from 42 to 42.15 with oxidized slip planes										
				at about 20 deg to CA. Somewhat blocky and broken										
				up for about 50 cm above this fault. In general outside of										
				this small blocky section the unit is fairly competent with										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				a few typical slip planes at 10-15 deg to CA as per other										
				holes in this area and some fractures planes at 55-60 deg										
				to CA. No signifcant veining observed here except for										
				vein described at start of section. Pyrite content trace to										
				0.5%. Lower contact at 30 deg to CA and sharp contact.										
42.25	50.20	Diorite	6D	This a light grey to light salmon color due to weak hematite	20984	42.25	43.00	0.75	< 5	<0.005				
				alteration on fresh dry surface, color varies with intensity	20985	43.00	44.00	1.00	44	0.044				
				of alteration; overall weak to moderate and pervasive.	20986	44.00	45.00	1.00	29	0.029				
				This unit is more medium to fine grained and primarily	20987	45.00	46.00	1.00	37	0.037				
				composed of feldspar and quartz, less that 3% mafic	20988	46.00	47.00	1.00	43	0.043				
				minerals. Overall estimate of trace to 0.5% pyrite but	20989	47.00	48.00	100	24	0.024				
				certain intervals like from 43-44 m (3% pyrite) contain	20990	std221			1080	1.08				
				somewhat more pyrite. A few tiny microstringers of	20991	48.00	49.00	1.00	42	0.042				
				quartz calcite noted, not significant. This unit is locally wkly	20992	49.00	50.00	1.00	23	0.023				
				magnetic and has a weak to moderate HCL reaction. Unit	20993	50.00	50.70	0.70	31	0.031				
				is considered soft to moderate with respect to hardness.										
				Reltively competent unit with a number of slip planes at										
				10 to 15 deg to CA and fractures at 60 deg to CA in general.										
				Lower contact along oxidized slip plane marking start of										
				fault below at 10 deg to CA. note small mafic dyke noted										
				within diorite from 47.75-48.00 m.										
50.20	51.65	Major Fault Zone	FZ	Broken ground rubble with signifiant gossan on oxidized	20994	50.70	51.65	0.95	73	0.073				
				planes. Host rock of fault diorite to about 50.7 meters	20995	51.65	53.00	1.35	10	0.01				
				and beyond this oxidized gabbro. Contact of two units	20996	53.00	54.00	1.00	1030	1.03				
				within fault ground up. Lower contact of fault at 40 deg to	20997	54.00	55.00	1.00	40	0.04				
				CA.										
51.65	56.85	Gabbro	6G	This is a darker grey more coarser grained section of	20998	55.00	56.00	1.00	153	0.153				
				gabbro that is exceptionally hard (silicified??). Strongly	20999	56.00	56.85	0.85	1560	1.56				
				magnetic unit and some magnetite noted. Stong pervasive										
				epidote alteration noted in last 1.5 meters above lower										
				contact. A few stringers of edpidote present in unit as well.										
				Competent unit with a number of minor slips at 10-15 deg										
				to CA and few fractures at 55-60 deg to CA. Minor fault										
				from 55.65 to 55.85 at about 5 deg to CA with some blocky										
				broken core. Unit has no HCL reaction and no significant										
				quartz or quartz calcite veining or stringers noted. Trace										
				pyrite in this section. Lower contact with quartz calcite										
				vein at 30 deg to CA.										
56.85	57.38	Quartz calcite Vein	Qcv	This is a white colored relatively soft quartz calcite vein	21000	56.85	57.38	0.63	18	0.018				
				with no minerlization. Uppper contact at 50 deg to CA and										
				lower contact at 60 deg to CA.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
57.38	64.50	Gabbro	6G	This is a coarse grained grey colored unit with a	21001	57.38	58.50	1.12	6	0.006				
				mineralogical make up as per intitial description of gabbro	21002	58.50	60.00	1.50	7	0.007				
				in this hole. Ferro mag minerals more dominant than	21003	60.00	61.50	1.50	< 5	<0.005				
				feldspar giving unit a slightly darker grey color. The unit is	21004	61.50	63.00	1.50	19	0.019				
				hard and strongly magnetic with some magnetite grains.	21005	63.00	64.50	1.50	1820	1.82				
				Trace of pyrite mineralization at best and no significant										
				quartz or quartz calcite veining / stringers. A couple of										
				rare granitic veins noted generally less than 2 cm wide.										
				Some very minor localized patchy weak epidote alteration.										
				A few slip planes noted ranging from 5-15 deg to CA and										
				some fractures at 55-65 deg to CA generally, this is										
				a competent unit overall. Lower contact gradational over										
				10 cm or so.										
64.50	67.00	Gabbro	6G	This is a still a gabbro unit but it is more medium to fine	21006	64.50	65.50	1.00	16	0.016				
				grained with rare short interval of coarser grained material.	21007	65.50	66.50	1.00	< 5	<0.005				
				The unit is extremely bleached and contains numerous	21008	66.50	67.00	0.50	28	0.028				
				quartz and quartz calcite microstingers generally oriented	21009	67.00	67.50	050	< 5	<0.005				
				at 20 and 60 deg to CA geneally. These make up about 5%	21010	blank			< 5	<0.005				
				of the unit. The unit is non magnetic and has a strong HCL										
				reaction. Estimate of 2-3% disseminated pyrite. Relatively										
				easy to scratch, soft unit. Numerous leucoxenes observed										
				especially adjacent stringer salvages. The unit is blocky										
				and broken up with numerous fractures and slips/ minor										
				faults? Color wise unit could be described as bleached										
				white grey. Again gradational lower contact.										
67.00	81.00	Gabbro	6G	This is a medium to coarse grained gabbro with a	21011	67.50	69.00	1.50	20	0.02				
				mineralogical make up as per 2-36 m description above.	21012	69.00	70.50	1.50	13	0.013				
				This partiular section has very minimal quartz or quartz	21013	70.50	72.00	1.50	5	0.005				
				cacite stringers/ veinlet except for intitial 1 meter inteval	21014	72.00	73.50	1.50	6	0.006				
				beyond upper contact. The unit is hard and not easily	21015	73.50	75.00	1.50	8	0.008				
				scatched with a knife. It has no HCL reaction and overall	21016	75.00	76.50	1.50	< 5	<0.005				
				strongly magnetic as magnetite present, some rare sections	21017	76.50	78.00	1.50	16	0.016				
				with no magentic response in first few meters of unit. The	21018	78.00	79.50	1.50	122	0.122				
				unit is a medium grey color and there is patchy strong	21019	79.50	81.00	1.50	140	0.14				
				epidote alteration noted and some epidote stringers. A few	21020	std221			1070	1.07				
				rare veinlets of granite generally less than 2 cm wide noted		EOH								
				Pyrite content minimal, estimate of trace. As per most of										
				this hole some slip planes noted at about 10 deg to CA and										
				some fractures again in general at 60 deg to CA. Very										
				competent unit.										
				EOH 81.00 M										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				Core stored at Pelangio Exploration field office in Connaught										
				Ontario.										
				Test at 60 m had an 214.4 Az and corrected az of 202.90										
				and a dip reading of -59.40.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area | **Grid Location: N/A See UTM Coordinates** | **Drill Company:** | **Completed Logging**
DDH: JS2003 | **Azimuth/Dip: 200/-70** | **UTM:560297E 5336213N Nad 83 Zone 17** | **NPLH Drilling** | **Feb.14 2020**
Core Size:NQ | **Tests: see last page** | **Date Started: Jan 29 2020 Date Completed: Jan 30 2020** | **Logged by:**
CLAIM: L512579 | **EOH:101.75** | **Core Stored: Pelangio Field Office Connaught Ontario** | **K. Filo**

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	1.65	Casing	CAS	Note, casing left in hole.										
1.65	53.70	Gabbro	6G	At 1.60 to 18.90	21021	1.65	3.00	1.35	6	0.006				
				This unit is a medium to coarse grained grey colored unit	21022	3.00	4.50	1.50	16	0.016				
				composed of plagioclase,ferro mag minearals (mainly	21023	4.50	6.00	1.50	658	0.658				
				amphiboles) and some quartz. The unit is fairly hard but	21024	6.00	7.50	1.50	421	0.421				
				can be scratched with a knife with effort. The unit is	21025	7.50	9.00	1.50	20	0.02				
				strongly magnetic with a few exceptions over short	21026	9.00	10.50	1.50	10	0.01				
				intervals in the first few meters of the hole. Magnetite	21027	10.50	12.00	1.50	5	0.005				
				noted in this unit. Pyrite mineralizaton very minimial and	21028	12.00	13.50	1.50	36	0.036				
				estimate of trace to 0.5% maximum. No significant quartz	21029	13.50	15.00	1.50	125	0.125				
				or quartz calcite stringers / veinlets observed (less than	21030	blank			< 5	<0.005				
				1% of unit). Local sections of patchy moderate epidote	21031	15.00	16.50	1.50	8	0.008				
				alteration and some stringers of epidote noted. The unit	21032	16.50	18.00	1.50	< 5	<0.005				
				has no HCL reaction. Competent interval with a few minor	21033	18.00	19.50	1.50	12	0.012				
				slip planes ranging from 5-15 deg to CA and fractures noted										
				at about 60 deg to CA.										
				At 18.90 to 35.43	21034	19.50	21.00	1.50	24	0.024				
				This is a continuation of gabbro unit as per mineralogical	21035	21.00	22.50	1.50	< 5	<0.005				
				make up just described in previous interval above. This	21036	22.50	24.00	1.50	6	0.006				
				particular interval is coarse grained and grey in color but at	21037	24.00	25.50	1.50	8	0.008				
				34-35.43 unit is more of a bleached grey; this latter section	21038	25.50	27.00	1.50	10	0.01				
				is non magnetic and has a very weak HCL reaction and	21039	27.00	28.50	1.50	13	0.013				
				some minor quartz calcite stringers; basically the only	21040	std221			1100	1.1				
				quartz calcite stringers in this interval. Outside of last 1.43	21041	28.50	30.00	1.50	16	0.016				
				meters variable response to magnet ranging from non	21042	30.00	31.50	1.50	7	0.007				
				existant to very strong, some magntite pressent in areas	21043	31.50	33.00	1.50	87	0.087				
				with stronger response. Again weak to moderate patchy	21044	33.00	34.00	1.00	7	0.007				
				epidote alteration noted along with some epidote stringers.	21045	34.00	35.00	1.00	76	0.076				
				Also some minor leucoxene alteration noted at 34.75-34.85.	21046	35.00	36.00	1.00	231	0.231				
				In general this unit is hard and difficult to scratch with knife										
				but softer in last 1.43 meters of interval, this last inteval also										
				slightly finer to medium grained. In this section minimal										
				amount of pyrite observed; estimate of trace to 0.5%.										
				Small fault zone from 31.15 to 31.35 with fault plane at 5										
				deg to CA and some blocky broken ground associated with										
				fault. Outside of this competent unit with some minor slips										
				again at 5-15 deg to CA and some fractures at 60 deg to CA										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
1.65	53.70	Gabbro	6G	At 35.43 to 53.70										
		(continued)		Continuation of gabbroic unit; mineralogical make up as	21047	36.00	37.50	1.50	21	0.021				
				per inititial description in this hole. This unit is still medium	21048	37.50	39.00	1.50	14	0.014				
				to coarse grained but leaning towards medium grained. On	21049	39.00	40.50	1.50	773	0.773				
				the dry surface the unit is a light grey weakly bleached	21050	40.50	42.00	1.50	33	0.033				
				color. This interval is strongly magnetic, magnetite noted.	21051	42.00	43.50	1.50	13	0.013				
				Insignificant quartz stringers and were present generally	21052	43.50	45.00	1.50	143	0.143				
				less than a cm wide, stringer noted at 47.40 at 50 deg to CA	21053	45.00	46.50	1.50	13	0.013				
				in association with minor slip plane and a small stringer	21054	46.50	48.00	1.50	18	0.018				
				at 52.32 at 50 deg to CA. Unit is very hard and difficult to	21055	48.00	49.50	1.50	14	0.014				
				scratch with a knife. Unit has no HCL reaction. Estimate	21056	49.50	51.00	1.50	17	0.017				
				of 0.5% pyrite. Again patchy epidote alteration along with	21057	51.00	52.50	1.50	406	0.406				
				some epidote stringers. Some granitic dykes less than 2 cm	21058	52.50	53.70	1.20	236	0.236				
				wide generally sub parallel to CA noted from 50.5 to 51.50.										
				No major structure noted. As usual a number of minor slip										
				planes ranging from 5-15 deg to CA and fractures at										
				about 60-65 deg to CA in general. Lower contact with fault										
				zone at 50 deg to CA.										
53.70	55.85	Fault Zone	FZ/6G	This is a brittle fault zone with signifcant ground rubble	21059	53.70	55.00	1.30	882	0.882				
				making up the fault zone, slip planes within the fault zone	21060	blank			9	0.009				
				are parallel to the core axis for the most part. Some	21061	55.00	55.85	0.85	123	0.123				
				oxidation noted (limonite). A few quartz stingers noted										
				but rare and host rock is a coarse grained gabbro. Some										
				minor leucoxenes noted on salvage of stringer. The gabbro										
				within the fault zone has a strong HCL reaction and is										
				magnetic. Gabbro still very hard to scratch with a knife. Very										
				minor pyrite note estimate of trace. Lower contact of fault										
				ground up.										
55.85	59.50	Gabbro	6G	This is a grey colored medium grained gabbro with	21062	55.85	57.00	1.15	36	0.036				
				mineralogical make up as per intial description of gabbro	21063	57.00	58.50	1.50	1060	1.06				
				unit in this hole. Some pyrite in this section perhaps 1%	21064	58.50	59.50	1.00	338	0.338				
				in disseminated form overall. A few minor quartz calcite										
				stringers present, not significant. Some epidote stringers										
				also noted. Also a grantic dyke a couple of cm wide										
				extending for about 10-15 cm beyond 56 m at 15 deg to CA.										
				Locallly a weak HCl response and some minor patchy epidote										
				alteration noted as well. Variable hardness from moderate										
				to very hard and strong reaction to magnet. A few										
				fractures present at 50-60 deg to CA and some slip planes										
				at 15 deg to CA in general proximal to fault contact of this										
				unit. Lower contact along a slip plane at 35 deg to CA.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
59.50	64.80	Fault Zone	FZ/6D	This is a major brittle fault zone with most of the rock, shattered or ground up into rubble. The host rock for this fault is a diorite comprised mainly of feldspar, quartz and some minor mafic minerals for the majority of the fault. A small fine grained mafic dyke is present from 59.50 to 60.30; the only other unit within the fault zone. The diorite is a grey to salmon color due to hematite alteration. The diorite is of moderate hardness and reacts strongly to HCL. No significant minralization observed in diorite or mafic dyke. Some minor quartz calcite microstingers observed in mafic dyke but not considered significant. The diorite dyke is weakly magnetic and the mafic dyke non magnetic. Mafic dyke has no HCL reaction. Lower contact of fault zone at 30 deg to CA.	21065	59.50	60.30	0.80	19	0.019				
					21066	60.30	61.50	1.20	13	0.013				
					21067	61.50	63.00	1.50	15	0.015				
					21068	63.00	64.00	1.00	17	0.017				
					21069	64.00	65.00	1.00	50	0.05				
					21070	std221			1080	1.08				
64.80	71.10	Diorite	6D	This unit is the same diorite unit present within the fault zone above. It has a similar mineralogical make up to the diorite described above within fault zone. This unit is again a grey to light salmon color due to hematite alteration. Unit of moderate hardness, non magnetic outside fault & has moderate HCL reaction. The diorite is medium to fine grained Estimate of 1-2% fine disseminated pyrite in unit. A few stringers of quartz calicte not significant. Fairly competent interval with a few slips at 5-10 deg to CA and fractures noted at 45 and 60 deg to CA. In some instances some poorly developed phencrysts of feldspar "suggesting" a porphyry like texture but extremely poorly developed at best. This diorite may represent the No.6 vein porphyry described in historical literature. Towards lower contact, for about last 50 cm or so diorite has a chill zone and becomes finer grained and unaltered. Lower contact at 20 deg to CA.	21071	65.00	66.00	1.00	23	0.023				
					21072	66.00	67.00	1.00	24	0.024				
					21073	67.00	68.00	1.00	34	0.034				
					21074	68.00	69.00	1.00	11	0.011				
					21075	69.00	70.00	1.00	54	0.054				
					21076	70.00	71.10	1.10	54	0.054				
71.10	72.05	Quartz Vein	Qv	Smoky grey black quartz vein (chert like) which grades into a white quartz ankerite vein for last 25 or so cm of vein. Some fine pyrite present in vein 1% overall. Lower contact at 20 deg to CA.	21077	71.10	72.05	0.95	127	0.127				
72.05	72.50	Gabbro	6G	Small section of gabbro as per previous descriptions of gabbro in this hole. No significant veining or mineralization observed. Some leucoxene at upper contact adjacent vein above. Unit is hard, non magnetic & does not react to HCL. The unit is medium to coarse grained.	21078	72.05	72.50	0.45	72	0.072				
72.50	73.75	Fault Zone	FZ/6G	A brittle fault zone with substantial broken rock/ rubble. Numerous slip planes from from 30 deg to CA to a few deg	21079	72.50	73.75	1.25	22	0.022				
					21080	blank			< 5	<0.005				

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				from the CA. Lower contact of fault parallels CA for about										
				10 cm. The unit hosting the fault is a gabbro that is medium										
				to coarse grained and is a grey color. No significicant										
				mineralization noted, rare microstinger of quartz noted. Unit										
				has HCL reaction and is still farily hard and strongly										
				magnetic.										
73.75	101.75	Gabbro	6G	This is a medium to coarse grained gabbro that is grey in	21081	73.75	75.00	1.25	212	0.212				
				color for the most part. However, from about 85.5-94.20	21082	75.00	76.50	1.50	152	0.152				
				more of a weakly bleached greycolor on fresh dry	21083	76.50	78.00	1.50	7	0.007				
				surface. Beyond 94.20 to end of hole a grey color.	21084	78.00	79.50	1.50	< 5	<0.005				
				Mineralogical make up of this unit as per intitial descritpion	21085	79.50	81.00	1.50	5	0.005				
				in this hole. Very minimal quartz calcite stringers / veinlets.	21086	81.00	82.50	1.50	10	0.01				
				A small veinlet observed at 83 meters and a few stringers	21087	82.50	84.00	1.50	7	0.007				
				noted from 92.75 to 94 oriented at 80-85 deg to CA.	21088	84.00	85.50	1.50	8	0.008				
				The unit is hard but can be scratched with some effort and	21089	85.50	87.00	1.50	5	0.005				
				it has no HCL reaction with the exception of area between	21090	std221			1110	1.11				
				92.75 and 94 m. Strongly magnetic unit and magnetite	21091	87.00	88.50	1.50	< 5	<0.005				
				noted. Some patchy epidote alteration noted and a	21092	88.50	90.00	1.50	13	0.013				
				number of epidote stringers present. Some leucoxene	21093	90.00	91.50	1.50	5	0.005				
				alteration noted from 92.75 to 94 m. A few rare granitic	21094	91.50	92.75	1.25	6	0.006				
				dykes generally less that 2 cm such as at 87.15 m. Pyrte	21095	92.75	94.00	1.25	6	0.006				
				mineralization sparse, estimate of 0.5%. Maximum overall.	21096	94.00	94.50	0.50	6	0.006				
				Minor fault at 2-3 deg to CA from 95.80-96.20. Outside of	21097	94.50	96.00	1.50	< 5	<0.005				
				this a very competent inteverval with a number of slips	21098	96.00	97.50	1.50	< 5	<0.005				
				planes at 10-15 deg in general and fracture at 45-50 and 60	21099	97.50	99.00	1.50	< 5	<0.005				
				deg to CA.	21100	99.00	100.50	1.50	5	0.005				
				EOH 101.75 M.	21101	100.50	101.75	1.25	< 5	<0.005				
				Core stored at Pelangio's field office in Connaught Ontario										
				Test at 60 m has an az of 220.2 deg and corrected this										
				az would be 208.70 and a dip of -71.80. Concern about										
				magnetics in this hole with regard to azimuth.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area | **Grid Location: N/A Off Grid See UTM** | **Drill Company:** | **Completion of Logging:**
DDH: JS2004 | **Azimuth/Dip: 197/-47** | **UTM:560318E 5336214N Nad 83 Zone 17** | **NPLH Drilling** | **January 29 2020**
Core Size:NQ | **Tests: see last page** | **Date Started:Jan 20/20 Date Comleted: Jan 21/20** | **Logged by:**
CLAIM: L512579 | **EOH:60m.** | **Core Storage: Pelangio Office Connaught Ontario.** | **K. Filo**

	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	1.60	Casing	CAS	Note, casing left in hole.										
1.60	26.62	Gabbro	6G	This is a dark grey medium to coarse grainded unit	20501	1.60	3.00	1.40	7	0.007				
				comprised of plagioclase, ferro mag minerals, and some	20502	3.00	4.00	1.00	5	0.005				
				quartz. Ferro mag minerals most prominent, estimated to	20503	4.00	5.00	1.00	< 5	<0.005				
				make up about 50% of unit. Variable sulphide content, pyrite	20504	5.00	6.00	1.00	72	0.072				
				ranges from trace to 1% but locally 2% disseminated over	20505	6.00	7.00	1.00	23	0.023				
				short intervals. Unit hard but can be scrathed with a knife with	20506	7.00	8.00	1.00	10	0.01				
				difficulty, silcification? Overall unit is strongly magnetic with	20507	8.00	9.00	1.00	8	0.008				
				a few intervals that are weakly to non magnetic.	20508	9.00	10.00	1.00	9	0.009				
				A few epidote stringers noted. This unit is moderately	20509	10.00	11.00	1.00	29	0.029				
				blocky with numerous fracture planes at 20,40 and 70 deg	20510	blank			< 5	<0.005				
				to the CA. Brittle fault zone from 13.2 to 13.8 with blocky	20511	11.00	12.00	1.00	< 5	<0.005				
				core at 10-15 deg to CA. and similarily at 18 to 18.4 m.	20512	12.00	13.00	1.00	18	0.018				
				Very few quartz stringers, minor stirnger noted at 14.92,	20513	13.00	14.00	1.00	254	0.254				
				17.8, and 23.15. Some sections of this unit have large	20514	14.00	15.00	1.00	3730	3.73				
				phenocrysts of plagioclase giving it a porphyritic	20515	15.00	16.00	1.00	35	0.035				
				appearance. This is particularily evident at 19.5 to 25. A void	20516	16.00	17.00	1.00	47	0.047				
				was interesected from 23.25 to 24 m., likely edge of some	20517	17.00	18.00	1.00	< 5	<0.005				
				mine workings. This unit has no HCL reaction whatsoever.	20518	18.00	19.00	1.00	100	0.1				
				Lower contact associated with quartz vein,erratic contact	20519	19.00	20.00	1.00	392	0.392				
				at about 70 deg to CA. Actual vein from 26.42-24.62.	20520	std221			1060	1.06				
					20521	20.00	21.00	1.00	635	0.635				
26.62	47.90	Mafic Volcanic'	2MS	at 26.62 to 35 m.	20522	21.00	22.00	1.00	1300	1.3				
		(Basalt)		A few small gabbroic sections, small dykes of gabbro	20523	22.00	23.25	1.25	580	0.58				
				intruding into a mainly volcanic interval, gabbro as per above.	ns void	23.25	24.00	0.75	0	0				
				This is a light grey very fine grained and very hard unit	20524	24.00	25.00	1.00	555	0.555				
				that is difficult to scratch with knife; possibly silicifed? Unit	20525	25.00	26.00	1.00	1040	1.04				
				is non magnetic and does not react to HCL. A few minor	20526	26.00	26.62	0.62	3120	3.12				
				quartz veinlets generally less than couple of cm and a	20527	26.62	27.00	0.38	789	0.789				
				number of wispy quartz calcite stringers making up 3-4% of	20528	27.00	28.00	1.00	3520	3.52				
				unit at various orientations. Sparse sulphide, trace pyrite	20529	28.00	29.00	1.00	3070	3.07				
				at best. Numerous fractures through out intereval, again	20530	blank			15	0.015				
				these are generally at 40 and 70 deg in general. Some minor	20531	29.00	30.00	1.00	> 5000	9.35				
				slip planes as well at 10 -15 deg to CA. This unit is	20532	30.00	31.00	1.00	1540	1.54				
				considered massive in appearance as no other significant	20533	31.00	32.00	1.00	362	0.362				
				volcanic textures observed.	20534	32.00	33.00	1.00	17	0.017				
					20535	33.00	34.00	1.00	531	0.531				
					20536	34.00	35.00	1.00	629	0.629				

	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
26.62	47.90	Mafic Volcanic'	2MS	at 35.00 to 47.90 m.	20537	35.00	36.00	1.00	1460	1.46				
	continued	(Basalt)		Continuation of massive mafic volcanic as per description	20538	36.00	37.50	1.50	1140	1.14				
		continued		above from 26.62 to 35. This particular interval is	20539	37.50	39.00	1.50	> 5000	10.9				
				exceptionally blocky and broken up fronm 34.95 to 38. It is	20540	std221			1050	1.05				
				thought to represent a brittle fault zone with numerous	20541	39.00	40.50	1.50	> 5000	7.89				
				slips generally from a few degrees to 15 deg to CA with	20542	40.50	42.00	1.50	26	0.026				
				centre of fault zone associated with slip plane at 2-3 deg	20543	42.00	43.50	1.50	140	0.14				
				to CA at 36.5 to 36.90. Again extremely hard unit, fine	20544	43.50	45.00	1.50	> 5000	5.12				
				grained, non magnetic unit with no HCL reaction. A few	20545	45.00	46.00	1.00	63	0.063				
				rare quartz stringers and veinlets, not significant.	20546	46.00	47.00	1.00	87	0.087				
				Localized pyrite clot or stringer noted but overall trace	20547	47.00	47.90	0.90	35	0.035				
				pyrite. Some localized patchy bleaching as per section										
				from 45-45.75.Very sharp well defined lower contact at										
				20 deg to CA.										
47.90	55.00	Diorite	6D	This is a reddish (hematite altered) medium grained unit	20548	47.90	49.00	1.10	20	0.02				
				composed of quartz, plagioclase and minor ferro mag	20549	49.00	50.00	1.00	11	0.011				
				minerals. Difficult to ascertain mineral make up due to	20550	blank		1.00	< 5	<0.005				
				relatively intense pervasive alteration. Unit is hard but can	20551	50.00	51.00	1.00	18	0.018				
				be scratched with a knife with effort. Overall maximum	20552	51.00	52.00	1.00	28	0.028				
				of 1/2 % pyrite generally disseminated with occassional	20553	52.00	53.00	1.00	22	0.022				
				clot and stringer. Some wispy quartz calcite micro stringers	20554	53.00	54.00	1.00	7	0.007				
				and rare quartz carb stringer noted from upper contact to	20555	54.00	55.00	1.00	< 5	<0.005				
				51m. Unit itself has moderate HCL reaction & is strongly										
				magnetic. Very competent unit with occassional rare slip										
				plane, exception to this is an interval from 54 m to lower										
				contact which is section of broken rubble possibly										
				representing a brittle fault zone contact.										
55.00	56.82	Mafic Volcanic	2MS	This is a very fine grained, massive, light grey colored unit	20556	55.00	56.00	1.00	64	0.064				
		(Basalt)		that is very hard and thought to be silicified. A number of	20557	56.00	56.82	0.82	161	0.161				
				small quartz stingers occassional veinlet of quartz as well										
				generally less than 3-4 cm often containing pyrite.										
				Also some pyrite stringers as well and										
				pyrite content at about 3% overall. Unit is										
				magnetic for most part. Unit has no HCL reaction. Fairly										
				competent unit with a few fractures at 30-35 deg to CA.										
				Lower contact at 45 deg to CA; sharp contact some chalco										
				stringers on contact with some pyrite.										
56.82	60.00	Gabbro	6G	This is medium to coarse grained dark grey colored gabbro	20558	56.82	57.25	0.43	60	0.06				
				with quartz, plagioclase and ferro mag minerals dominated	20559	57.25	58.00	0.75	35	0.035				
				by plagioclase and ferro mag minerals. Minor quartz	20560	std221			1070	1.07				
				veinlets at 57.10-57.25 and 59.25-59.35. Numerous										
				large leucoxenes noted 10-15 cm on each side of 2nd										
				veinlet.										

	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
56.82	60.00	Gabbto	6G	Trace of pyrite observed and fair amount of magnetite, and										
	EOH	continued		thus unit strongly mangnetic. Unit is relatively competetent	20561	58.00	59.00	1.00	147	0.147				
				with some minor fractures generally oriented at 60-70 deg	20562	59.00	59.50	0.50	24	0.024				
				to CA. A small fault present at 58.5-58.75 at about 10 deg	20563	59.50	60.00	0.50	86	0.086				
				to CA. Minor quartz within fault zone. This unit is hard & can										
				be scratched with knife with difficulty. The unit does not										
				have an HCL reaction, some HCL reaction associated with										
				quartz vein at 59.25-59.35.										
				EOH: 60 M. Core stored at Pelangio office in Connaught										
				Ontario.										
				Tests: Corrected test at 60 m. Azimuth (196 deg) thought to be										
				questionable due to substantial magnetics at end of hole										
				and dip taken as accurate at 46.1 degrees. However, azimuth										
				does match collar az of 197 closely so data will be used.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area | **Grid Location: N/A Off Grid See UTM** | **Drill Company:** | **Completion of Logging:**
DDH: JS2005 | **Azimuth/Dip: 197/-60** | **UTM:560318E 5336214N Nad 83 Zone 17** | **NPLH Drilling** | **February 2 2020**
Core Size:NQ | **Tests: see last page** | **Date Started:Jan 21/20 Date Comleted: Jan 23/20** | **Logged by:**
CLAIM: L512579 | **EOH:125.50** | **Core Storage: Pelangio Field Office Connaught Ontario** | **K. Filo**

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	3.00	Casing	CAS	Note, casing left in hole.										
3.00	44.00	Gabbro	6G	at 3.00 to 20 m.	20564	3.00	4.50	1.50	< 5	<0.005				
				This is a coarse grained, dark grey colored rock, with typical	20565	4.50	6.00	1.50	17	0.017				
				plagioclase, ferro mag minerals and some quartz for	20566	6.00	7.50	1.50	640	0.64				
				minerology. Ferro mag minerals dominant proportion wise.	20567	7.50	9.00	1.50	9	0.009				
				The unit is hard and can be scratched with some effort with	20568	9.00	10.50	1.50	249	0.249				
				a knife. No signifiant quartz veining observed but a few	20569	10.50	12.00	1.50	7	0.007				
				epidote stringers noted. Very competent unit with a few	20570	blank			< 5	<0.005				
				minor slips at 10-15 deg to CA. Some fractures at 30 and	20571	12.00	13.50	1.50	80	0.08				
				70 deg to CA in general. The unit has 1-2% fine diss. Pyrite	20572	13.50	15.00	1.50	15	0.015				
				throughout unit. The unit has no HCL reaction and overall	20573	15.00	16.50	1.50	288	0.288				
				a weakly to strongly magnetic interval.	20574	16.50	18.00	1.50	122	0.122				
					20575	18.00	19.50	1.50	15	0.015				
				at 20.00 to 36.80 m	20576	19.50	21.00	1.50	12	0.012				
				Continuation of gabbro unit as described above from 3.00	20577	21.00	22.50	1.50	66	0.066				
				to 20 m. Very few quartz veinlets noted (rare) but of note	20578	22.50	24.00	1.50	156	0.156				
				a small veinlet from 36.36 to 36.46 with numeous specks	20579	24.00	25.50	1.50	33	0.033				
				and smeared VG. Some leucoxene present in gabbro wall	20580	std221			1080	1.08				
				rock of veinlet. Some bleaching of gabbro noted from 24.00	20581	25.50	27.00	1.50	94	0.094				
				to 24.30 and 33 to 33.70. A few epidote stringers noted	20582	27.00	28.50	1.50	36	0.036				
				in this interval as well. Again some pyrite present but in the	20583	28.50	30.00	1.50	199	0.199				
				order of 1% maximum overall in disseminated form. Unit	20584	30.00	31.50	1.50	231	0.231				
				has variable response to magnet, basically non magnetic	20585	31.50	33.00	1.50	107	0.107				
				from 20-27 m and beyond this spoadic response from weak	20586	33.00	34.00	1.00	558	0.558				
				to strongly magnetic. No resposne to HCL. Again a very	20587	34.00	35.00	1.00	753	0.753				
				competent unit with no major faults, some minor slips at 15	20588	35.00	36.00	1.00	776	0.776				
				to 20 deg to CA in general. Fractures at 45 and 70 deg to	20589	36.00	36.26	0.26	49	0.049				
				CA in general.	20590	blank			6	0.006				
					20591	36.26	36.56	0.30	> 5000	1810				
				at 36.80 to 44.00	20592	36.56	37.00	0.44	4230	4.23				
				Continuation of gabbro unit as described above from 3.00	20593	37.00	37.50	0.50	2370	2.37				
				to 20 m described initially for this unit. Again this interval	20594	37.50	38.00	0.50	1020	1.02				
				is coarse grained, dark grey in color and still very hard but	20595	38.00	39.00	1.00	475	0.475				
				can be scratched with a knife with some effort. Unit has no	20596	39.00	40.50	1.50	379	0.379				
				HCL reaction and it has a variable response to magnet	20597	40.50	42.00	1.50	1490	1.49				
				ranging from moderate to non magnetic. Some minor quartz	50598	42.00	43.00	1.00	566	0.566				
				stringers noted from 37.5 to 38 associated with minor	20599	43.00	44.00	1.00	463	0.463				
				leucoxene but outside of this very minimal quartz.	20600	std221			1090	1.09				

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
3.00	44.00	Gabbro (continued	6G	Pyrite content minimal estimate of 0.5-1%. Some epidote stringers observed occassionally as well. Relatively competent interval; again some minor slips at 10-15 deg to CA. and fractures generally at 30 deg to CA.										
44.00	48.40	Fault Zone	FZ	This is a blocky broken fault zone with numerous slips and ground up rubble. The brittle fault appears to be hosted within a chilled and slighltly more medium grained gabbro but typical of unit describe prior to fault. The host rock is non magnetic, has no HCL reaction and is a dark grey color. A few small quartz microstingers observed and some epidote stringers as well. No signficant sulpide noted and lower contact of fault at 20 deg to CA.	20601	44.00	45.00	1.00	404	0.404				
					20602	45.00	46.50	1.50	688	0.688				
					20603	46.50	48.00	1.50	1530	1.53				
48.40	57.95	Mafic Volcanic (Basalt)	2MS	Very fine grained massive mafic volcanic that this light grey in color. Very minor quartz veining noted, a few microstingers of epidote noted. Variable response to magnet from very weak to moderate and no response to HCL. Some magnetite observed in unit and minor pyrite, trace. Unit is extremely hard, (silicified?)but can be scratched with a knife with effort.This is a competent unit with a number of small slips at 10-15 deg to CA and some fractures at 70 and 30 deg to CA in general. Lower contact at 40 deg to CA associated with minor slip plane with a vuggy quartz stringer.	20604	48.00	48.40	0.40	557	0.557				
					20605	48.40	49.50	1.10	52	0.052				
					20606	49.50	51.00	1.50	173	0.173				
					20607	51.00	52.50	1.50	221	0.221				
					20608	52.50	54.00	1.50	228	0.228				
					20609	54.00	55.50	1.50	90	0.09				
					20610	blank			< 5	<0.005				
					20611	55.50	57.00	1.50	4860	4.86				
					20612	57.00	57.95	0.95	1700	1.7				
57.95	62.05	Mafic Dyke	6U	This unit appears to be a fine to medium grained grey black colored dyke with sub angular fragments of more felsic unit (granodiorite?). This unit is fairly hard but can be scratched with a knife with a effort. Minor pyrite, trace and a few minor quartz calicte stringers (HCL reaction), but no HCL reaction in unit itself. Unit is strongly magnetic. A few epidote stringers and patchy epidote alteration locally. This is a competent unit for the most part with a few fractures noted at about 45 deg to CA. Small brittle blocky broken fault basically ground rubble from 60.55 to 70.75. Upper contact of fault at 45 deg to CA. Lower contact sharp but erratic.	20613	57.95	59.00	1.05	328	0.328				
					20614	59.00	60.00	1.00	169	0.169				
					20615	60.00	61.00	1.00	171	0.171				
					20616	61.00	62.05	1.05	293	0.293				
					20617	62.05	63.00	0.95	19	0.019				
62.05	71.05	Diorite	6D	This is the same diorite unit as described in JS2004. It is composed of quartz, feldspar and minor mafic minerarals. This particular portion appears to contains signficant quartz In this particular interval again farily strong pervasive hematite alteration to about 66.9 giving unit its redish color.	20618	63.00	64.00	1.00	12	0.012				
					20619	64.00	65.00	1.00	8	0.008				
					20620	std221			1070	1.07				
					20621	65.00	66.00	1.00	12	0.012				

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
62.55	71.05	Diorite	6D	When alteration is weak and not pervasive more of a	20622	66.00	67.00	1.00	7	0.007				
		(continued)		salmon grey color. Estimate of 1/2 to 1% pyrite overall,	20623	67.00	68.00	1.00	7	0.007				
				but locally 2-3% over short intervals of 30 cm or so.	20624	68.00	69.00	1.00	25	0.025				
				The unit is medium grained, and of moderate hardness and	20625	69.00	70.00	1.00	7	0.007				
				strongly magnetic. Some minor quartz carb microstingers	20626	70.00	71.05	1.05	18	0.018				
				observed, these make up less than 1% of unit. A number of										
				minor slips noted at 10-15 deg to CA and fracture planes										
				at 30 and 60 deg to CA in general. Lower contact blocky										
				and broken typical of a brittle fault (rubble) for last 40 cm										
				prior to contact. Lower contact with quartz vein at 50 deg										
				to CA. Note, unit has weak HCL reaction.										
71.05	71.55	Quartz Vein	Qv	White quartz vein, no significant mineraliazation	20627	71.05	71.55	0.50	11	0.011				
				observed. Lower contact at 45 deg to CA.	20628	71.55	72.00	0.45	36	0.036				
71.55	101.90	Gabbro	6G	at 71.55 to 90.00	20629	72.00	73.50	1.50	20	0.02				
				This is a light grey medium to coarse grained gabbro unit	20630	blank			< 5	<0.005				
				that is comprised of plagioclase, quartz and ferro mag	20631	73.50	75.00	1.50	117	0.117				
				minerals, unit appears to be dominated by feldspar.	20632	75.00	76.50	1.50	50	0.05				
				Strongly mangetic unit overall with some minor sections	20633	76.50	78.00	1.50	114	0.114				
				generally less than a meter that have a weak magnetic	20634	78.00	79.50	1.50	80	0.08				
				response. Some very rare quartz calcite stringers noted	20635	79.50	81.00	1.50	52	0.052				
				at 79.5 and throughout this interval a number of minor	20636	81.00	82.50	1.50	88	0.088				
				epidote stringers generally parallel to fractures. Overall	20637	82.50	84.00	1.50	49	0.049				
				a very competent unit with fractures at 60 and 45 deg to	20638	84.00	85.50	1.50	100	0.1				
				CA in general and a number of minor slips at 20 deg to CA.	20639	85.50	87.00	1.50	27	0.027				
				No HCL reaction in unit. Some weak bleaching in unit from	20640	std221			1050	1.05				
				79-81m, patchy. Trace of pyrite at best and magnetite noted	20641	87.00	88.50	1.50	80	0.08				
					20642	88.50	90.00	1.50	121	0.121				
				at 90.00 to 101.90	20643	90.00	91.00	1.00	145	0.145				
				still a gabbroic unit but is more medium grained and on fresh	20644	91.00	92.00	1.00	103	0.103				
				dry surface it has a bleached light grey color (wk albitic alter?)	20645	92.00	93.00	1.00	229	0.229				
				Again this section of gabbro has plagoclase as the most	20646	93.00	94.00	1.00	17	0.017				
				dominant mineral and substantial ferro mag minerals as well	20647	94.00	95.00	1.00	8	0.008				
				and some quartz. Strongly magnetic unit primarily as a	20648	95.00	96.00	1.00	6	0.006				
				result of magnetite content. This interval has more pyrite	20649	96.00	97.00	1.00	< 5	<0.005				
				than last interval, estimate of 1% overall but minor sections	20650	97.00	98.00	1.00	< 5	<0.005				
				over short intervals with somewhat more pyrite. Numerous	20651	98.00	99.00	1.00	13	0.013				
				stringers of epidote and some patchy sections of epidote	20652	99.00	100.00	1.00	7	0.007				
				alteration such as at 94.80 to 95.30 (epidote patches not	20653	100.00	101.00	1.00	10	0.01				
				common). Quartz stringers extremely rare, one noted at	20654	101.00	101.90	0.90	115	0.115				
				95.75 just before epidote altered patch. Relatively										
				competent interval again with a few minor slips at about 20										
				deg to CA in general and some fractures noted generally at										
				45 deg to CA. Increase in fractures and slips towards										
				fault contact below. Strongly magnetic as magnetite noted.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
71.55	101.90	Gabbro (continued)	6G	Unit is very had but can be scratched with knife with an effort. No HCL reaction noted. Lower contact sharp at 20 deg to CA, some minor gouge on fault slip plane.										
101.90	104.30	Fault Zone	Fz	This fault zone is typical of the faulting noted to date, a brittle blocky broken zone with numerous slip and fractures. There is some minor gouge observed on some of the slip planes observed. The host rock of the fault is a gabbro, that is grey black in color, medium to coarse grained and it has a variable response to magnet. There are a few minor quartz and quartz calcite stringers associated with some minor leucoxenes from 103.5 to 103.70. Outside of this no sigificant veining. A few rare epidote stringers noted. The unit is of moderate hardness and it has no HCL reaction. Trace of pyrite at best and magnetite noted. Lower contact at 60 deg to CA on slip with minor gouge.	20655	101.90	103.00	1.10	5	0.005				
					20656	103.00	104.30	1.30	5	0.005				
104.30	125.50	Gabbro	6G	Again this a gabbro unit as described in the initial portion of this hole with respect to mineralogical make up. The unit is light grey on the fresh dry surface and exhibits a bleached appearance. The unit appear slightly more bleached. The unit has some minor disseminated pyrite, estimate of 1/2 to 1% overall. For the most part this interval is strongly magnetic, coarser portions are most magnetic and magnetite observed in these areas. The unit is hard but can be scratched with a knife with effort. Some minor epidote stringers and minor patchy epidote observerd over a few cms or so. A few small quartz calcite stringers between 111 & 112 m. These small veinlets generally less than a couple of cm oriented at 60 deg to CA and 20 deg to CA (two sets). Some leucoxene noted in wall rock adjacent veinlets. A small fault from 111.3 to 111.6 running sub paralle to CA associated with stringers of quartz. The unit does not react to HCL. Relatively competent unit with some slips ranging from subparallel to CA to about 20 deg to CA in general and some fractures noted at 30 and 45 deg to CA generally. EOH 125.50	20657	104.30	105.00	0.70	< 5	<0.005				
					20658	105.00	106.50	1.50	7	0.007				
					20659	106.50	108.00	1.50	94	0.094				
					20660	blank			5	0.005				
					20661	108.00	109.00	1.00	7	0.007				
					20662	109.00	110.00	1.00	6	0.006				
					20663	110.00	111.00	1.00	< 5	<0.005				
					20664	111.00	112.00	1.00	8	0.008				
					20665	112.00	113.00	1.00	12	0.012				
					20666	113.00	114.00	1.00	< 5	<0.005				
					20667	114.00	115.00	1.00	< 5	<0.005				
					20668	115.00	116.00	1.00	5	0.005				
					20669	116.00	117.00	1.00	7	0.007				
					20670	std221			1040	1.04				
					20671	117.00	118.00	1.00	6	0.006				
					20672	118.00	119.00	1.00	< 5	<0.005				
					20673	119.00	120.00	1.00	< 5	<0.005				
					20674	120.00	121.00	1.00	6	0.006				
					20675	121.00	122.00	1.00	< 5	<0.005				
					20676	122.00	123.00	1.00	7	0.007				
					20677	123.00	124.00	1.00	< 5	<0.005				
					20678	124.00	125.50	1.50	5	0.005				
				Tests 125.5 m: 212.40 and dip of -61 deg, corrected Az of 201.40 deg. 60m:205.6 m: 205.6 and dip of -60.9 deg, corrected Az of 194.6 Az. Note some issues with az as this core exceptionally magnetic. Bottom test does concur reasonably with collar											

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				azimuth.										
				Core stored at Pelangio field office in Connaught Ontario.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area
DDH: JS2006 **Azimuth/Dip: 197/-70**
Core Size:NQ **Tests: see last page**
CLAIM: L512579 **EOH:53.50**

Grid Location: N/A Off Grid See UTM
UTM:560318E 5336214N Nad 83 Zone 17
Date Started:Jan 23/20 Date Comleted: Jan 24/20
Core Storage: Pelangio Field Office Connaught Ontario

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Completion of Logging
February 4 2020

From	To	Rock Type	Code	Description
0.00	2.30	Casing	CAS	Note, casing left in hole.
2.30	38.25	Gabbro	6G	at 2.30 to 38.25
				This is a very homogeneous looking interval of gabbro composed typically of plagioclase, ferro mag minerals and some quartz. Ferro mag minerals (amphiboles mainly) fairly dominant 50% plus of gabbro make up. Unit is a dark grey color and ranges from medium to coarse grained. The unit is hard but can be scratched with knife with effort. Some patchy localized epidote alteration observed and a few epidote stringers. Relatively competent unit with a number of slips at 10-15 deg to CA.; one minor fault noted with some oxidation on fault plane at 8.6m, this minor fault at 20 deg to CA. Also unit has few fractures at 45 and 70-80 deg to CA in general. The unit is strongly to moderately magnetic with some exceptions over very short intervals. The unit has no HCL reaction. No significant quartz veining but a small grey black quartz vein a couple of cm wide noted at 33.45-33.47. Estimate of overall pyrite content is 1% and mainly dissemainated and with rare pyrite stringer. Note at 15-18 m slightly more pyrite perhaps 2-2.5%.
38.25	41.15	Fault Zone	FZ	Again a very brittle and blocky fault zone typical of that found in the gabbroic rock on this prospect. Section of ground rock (rubble) along with more consolidated sections. Fault hosted in a gabbroic host that is grey in color and generally medium to fine grained and lighter grey color. Some minor gouge noted along slip planes and sometimes associated with very broken blocky sections. Some quartz veining within fault; of particular note is a vein from 38.30 to 38.9. This quartz vein has an upper contact associated with oxidized slip at 45 deg to CA. Lower part of vein from 38.6 breaks off into a series of erraticaly oriented velnlets. Lower contact of fault associated with slip plane and gouge at 25 deg to CA; minor quartz on slip plane. Gabbro host rock strongly magnetic, and hard to scratch with knife. Weak HCL reaction in gabbro. Trace of pyrite in the fault zone.

Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
20679	2.30	3.00	0.70	264	0.264				
20680	blank			< 5	<0.005				
20681	3.00	4.50	1.50	6	0.006				
20682	4.50	6.00	1.50	31	0.031				
20683	6.00	7.50	1.50	27	0.027				
20684	7.50	9.00	1.50	8	0.008				
20685	9.00	10.50	1.50	12	0.012				
20686	10.50	12.00	1.50	27	0.027				
20687	12.00	13.50	1.50	17	0.017				
20688	13.50	15.00	1.50	34	0.034				
20689	15.00	16.50	1.50	604	0.604				
20690	std221			1120	1.12				
20691	16.50	18.00	1.50	33	0.033				
20692	18.00	19.50	1.50	14	0.014				
20693	19.50	21.00	1.50	15	0.015				
20694	21.00	22.50	1.50	11	0.011				
20695	22.50	24.00	1.50	47	0.047				
20696	24.00	25.50	1.50	76	0.076				
20697	25.50	27.00	1.50	12	0.012				
20698	27.00	28.50	1.50	86	0.086				
20699	28.50	30.00	1.50	14	0.014				
20700	30.00	31.50	1.50	9	0.009				
20701	31.50	33.00	1.50	28	0.028				
20702	33.00	33.30	0.30	8	0.008				
20703	33.30	33.60	0.30	15	0.015				
20704	33.60	34.00	0.40	12	0.012				
20705	34.00	35.00	1.00	12	0.012				
20706	35.00	36.00	1.00	8	0.008				
20707	36.00	37.50	1.50	1090	1.09				
20708	37.50	38.30	0.80	68	0.068				
20709	38.30	38.90	0.60	20	0.02				
20710	blank			5	0.005				
20711	38.90	40.40	1.50	17	0.017				
20712	40.40	41.15	0.75	92	0.092				

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
41.15	53.50	Gabbro	6G	This is again a grey colored medium to coarse grained	20713	41.15	42.00	0.85	80	0.08				
				gabbro with ferro mag minerals being the dominant mineral,	20714	42.00	43.50	1.50	113	0.113				
				plagioclase and quartz also noted. The unit is fairly hard but	20715	43.50	45.00	1.50	298	0.298				
				can be scratched with knife with effort. Unit is strongly	20716	45.00	45.83	0.83	25	0.025				
				magnetic & magnetite grains observed in coarser sections.	20717	45.83	46.15	0.32	> 5000	26.5				
				The unit has no HCL reaction and with regard to alteration	20718	46.15	47.00	0.85	73	0.073				
				some minor epidote stringers present and some patchy	20719	47.00	48.00	1.00	78	0.078				
				weak localized epidote alteration. Some rare sections	20720	std221			1170	1.17				
				generally less than 10 cm with some leucoxene. Fairly	20721	48.00	49.50	1.50	272	0.272				
				competent interval with typical slip planes at 15-20 deg to	20722	49.50	51.00	1.50	24	0.024				
				CA and some fractures generally at 45 and 70 deg to CA.	20723	51.00	52.50	1.50	136	0.136				
				Sulphide content mainly pyrite is minimal, estimate of 0.5%.	20724	52.50	53.50	1.00	794	0.794				
				Minimal quartz stringers but of note is a small quartz veinlet										
				with VG at 45.92-46.08 associated with a slip plane at 20										
				deg to CA. Weakly bleached on dry surface at 46.08 to EOH										
				EOH: 53.50 (Hole lost in mine workings)										
				Note: No test taken in this hole as hole entered a void										
				in the mine workings and was stopped prematurely.										
				Core stored at Pelangio`s field office in Connaught Ont.										

PELANGIO EXPLORATION

Prospect: Grenfell SGX SW Zone
DDH: JS2007 **Azimuth/Dip: 130/-45**
Core Size: NW **Tests: see last page**
CLAIM: L522691 **EOH:90.00**

Grid Location: Line 3W 150 N (SGX Historical Grid 2012)
UTM:559992E 5336066N Nad 83 Zone 17
Date Started:Jan 30/20 Date Completed: Feb.1/20
Core Storage: Pelangio Office Connaught Ontario

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Completion of Logging:
February 7, 2020

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	2.15	Casing	CAS	Note, casing left in hole.										
2.15	55.00	Gabbro	6G	At 2.15 to 18.40	20725	2.15	3.00	0.85	11	0.011				
				This unit is a medium to coarse grained gabbro unit made	20726	3.00	4.50	1.50	8	0.008				
				up of plagioclase, ferro mag minerals and some quartz. The	20727	4.50	6.00	1.50	6	0.006				
				unit is light grey in color & fairly hard but can be scratched	20728	6.00	7.50	1.50	35	0.035				
				with a knife with some effort. Variable response to magnet	20729	7.50	9.00	1.50	17	0.017				
				and in extremely magnetic areas some magnetite observed.	20730	blank			6	0.006				
				The unit has no response to HCL. Some patchy epidote	20731	9.00	10.50	1.50	9	0.009				
				alteration observed along with some epidote stringers. A	20732	10.50	12.00	1.50	20	0.02				
				few minor quartz calcite stringers; these make up 2% of	20733	12.00	13.50	1.50	< 5	<0.005				
				this interval maximum. Unit has some disseminated pyrite	20734	13.50	15.00	1.50	11	0.011				
				estimate of 1% total overall. Competetent unit for the most	20735	15.00	16.50	1.50	20	0.02				
				part but a signficant amout of fractures with most	20736	16.50	18.00	1.50	15	0.015				
				prominent set at 60 deg to CA. A number of small slips	20737	18.00	19.50	1.50	57	0.057				
				generally at 15-20 deg to CA.	20738	19.50	21.00	1.50	15	0.015				
					20739	21.00	22.50	1.50	6	0.006				
				At 18.40 to 35.32	20740	std221			1090	1.09				
				Description of gabbro unit as per initial description above.	20741	22.50	24.00	1.50	6	0.006				
				Still a fairly coarse grained unit that is light grey in color.	20742	24.00	25.50	1.50	< 5	<0.005				
				Some sections of patchy epidote alteration noted and some	20743	25.50	27.00	1.50	< 5	<0.005				
				stringers of epidote noted as well. Again unit is hard but	20744	27.00	28.50	1.50	7	0.007				
				can be scratched with knife with effort and unit has no	20745	28.50	30.00	1.50	9	0.009				
				HCL response. Some minor quartz calcite veinlets about	20746	30.00	31.50	1.50	6	0.006				
				2 cm wide, less than 0.5% of unit. The interval is non	20747	31.50	33.00	1.50	< 5	<0.005				
				magnetic with a rare instance or two where there is some	20748	33.00	33.32	0.32	6	0.006				
				magnetic response. Relatively competetet interval with	20749	33.32	34.00	0.68	5	0.005				
				same fracture and slip pattern described above. From	20750	34.00	35.00	1.00	6	0.006				
				33-33.32 small section of hematitic alteration associated	20751	35.00	36.00	1.00	6	0.006				
				with small quartz calcite veinlet from 33.27-33.32. Sparse	20752	36.00	36.75	0.75	< 5	<0.005				
				pyrite content, trace to 0.5%.	20753	36.75	37.03	0.28	8	0.008				
					20754	37.03	38.00	0.97	8	0.008				
				At 35.32 to 55.00	20755	38.00	39.00	1.00	< 5	<0.005				
				Continuation of gabbroic unit as per inititial description in this	20756	39.00	40.50	1.50	< 5	<0.005				
				hole. This particular interval is coarse grained and grey in	20757	40.50	42.00	1.50	< 5	<0.005				
				color. This section is strongly magnetic beyond 39 m and	20758	42.00	43.50	1.50	< 5	<0.005				
				magnetite is present. The unit does not react to HCL. No	20759	43.50	45.00	1.50	< 5	<0.005				
				signifiant veining except from 36.75 to 37.00 a few quartz	20760	blank			< 5	<0.005				
				calcite stringers present at 75-80 deg to CA. & at 54-55 m.	20761	45.00	46.50	1.50	6	0.006				

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				Some local patchy epidote and a few epidote stringers.	20762	46.50	48.00	1.50	6	0.006				
				Overall estimate of 0.5%- 1% pyrite locally slightly more from	20763	48.00	49.00	1.00	5	0.005				
				48-51 meters, 1-2%. Unit becomes more medium grained	20764	49.00	50.00	1.00	6	0.006				
				from 52.55 to lower contact. Note some leucoxenes	20765	50.00	51.00	1.00	6	0.006				
				noted in association with quartz carb stringers from	20766	51.00	52.00	1.00	< 5	<0.005				
				54-55m. Again this intervals a fairly competent unit with	20767	52.00	53.00	1.00	< 5	<0.005				
				some minor slip planes generally at 15-20 deg to CA &	20768	53.00	54.00	1.00	8	0.008				
				some fractures generally at 30 and 60 deg to CA.	20769	54.00	55.00	1.00	13	0.013				
				Last 1.5 meter prior to lower contact a fair number of slip	20770	st221			1140	1.14				
				planes at 15 deg to CA.and a minor fault at 54.8 m at 10										
				deg to CA. Lower contact at 20 deg to CA.										
55.00	58.60	Mafic Dyke	6U	Very fine grained dark grey mafic dyke with rafts of	20771	55.00	56.00	1.00	6	0.006				
				gabbroic wall rock within the dyke. Unit is very hard	20772	56.00	57.00	1.00	< 5	<0.005				
				except where there is some patcy chlorite alteration.	20773	57.00	58.00	1.00	< 5	<0.005				
				Fairly will minralized with about 5% pyrite disseminated	20774	58.00	58.60	0.60	6	0.006				
				throughout unit. Numerous randomly oriented microstringers										
				of quartz calcite (2%) that react to HCL & mafic dyke itself										
				reacts to HCL strongly. No magnetic response to mafic										
				dyke or rafts of gabbro within dyke. Minor fault noted										
				from 55.55 to 55.75; brittle fault with broken blocky rubble										
				and ground contacts. A number of slip planes at 10-15 deg										
				to CA and some fractures at 30 and 60 deg to CA in										
				general. Lower contact is sharp and at 10 deg to CA.										
58.60	78.30	Gabbro	6G	Grey to light grey section of gabbro, more plagioclase rich	20775	58.60	60.00	1.40	5	0.005				
				sections lighter grey and more ferro mag rich sections	20776	60.00	61.50	1.50	5	0.005				
				slightly darker grey. In general this unit is medium to coarse	20777	61.50	63.00	1.50	6	0.006				
				grained. Competent unit with some fractures at 70,	20778	63.00	64.50	1.50	< 5	<0.005				
				30, and 45 deg to CA in geneal. Again a number of slips	20779	64.50	66.00	1.50	8	0.008				
				noted at about 10-15 deg to CA. The unit is fairly hard but	20780	blank			< 5	<0.005				
				can be scratched with a knife with some effort; the unit	20781	66.00	67.50	1.50	< 5	<0.005				
				does not respond to HCL. Variable response to magnet	20782	67.50	69.00	1.50	< 5	<0.005				
				from upper contact to about 72.20 and then a fairly coarse	20783	69.00	70.50	1.50	8	0.008				
				grained section at 72.20 to lower contact is very magnetic	20784	70.50	72.00	1.50	< 5	<0.005				
				with substantial magnetite present. Some local patchy	20785	72.00	73.50	1.50	< 5	<0.005				
				epidote alteration and a few epidote stringers noted as	20786	73.50	75.00	1.50	< 5	<0.005				
				well. Sparse pyrite; estimate 0f 0.5 to 1%. No significant	20787	75.00	76.50	1.50	< 5	<0.005				
				quartz veining, a small stringer less than a cm wide noted	20788	76.50	78.00	1.50	6	0.006				
				at 74.70 with some pyrite and minor leucoxene in wall rock.	20789	78.00	78.30	0.30	6	0.006				
				Lower contact at 88 deg to CA along a mud seam at start	20790	std221			1140	1.14				
				of fault below										
78.30	79.15	Fault Zone	FZ	Smalll but distinctive brittle fault zone with sand seams/	20791	78.30	79.15	0.85	6	0.006				
				gouge. Lower contact at 10 deg to CA.Finer grained gabbro										
				host rock with a few qurtz calcite str at 88 deg to CA.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
79.15	90.00	Gabbro	6G	This is a medium to coarse grained gabbro unit that is grey	20792	79.15	80.00	0.85	< 5	<0.005				
				in color and again made up of plagioclase, ferro mag	20793	80.00	81.00	1.00	6	0.006				
				minerals (mainly amphiboles) and some quartz. The unit	20794	81.00	82.50	1.50	< 5	<0.005				
				is fairly hard and can be scratched with a knife with some	20795	82.50	83.15	0.65	7	0.007				
				effort and unit has no HCL reaction. Unit is strongly	20796	83.15	83.45	0.30	< 5	<0.005				
				magnetic and fair amount of magnetite observed in unit.	20797	83.45	84.00	0.55	< 5	<0.005				
				No significant alteration observed, a few epidote stringers	20798	84.00	85.50	1.50	< 5	<0.005				
				noted and a few rare quartz calcite stringers noted in	20799	85.50	87.00	1.50	10	0.01				
				last 30-40 cm of hole. Very competent unit with only a few	20800	87.00	88.50	1.50	< 5	<0.005				
				slips at 10-15 deg to CA. and a few fracture generally at	20801	88.50	90.00	1.50	< 5	<0.005				
				60 and 30 deg to CA. Trace of pyrite at best in this last										
				interval.										
				EOH: 90 meters.										
				Core stored at Pelangio field office in Connaught Ontario										
				Down hole test corrected for declination was 127.2 Az										
				and -46 dip at 60 m. Questionable down dip az data										
				as hole drilled on old surface line at 130 az., 2.8 deg in 60 m										
				a lot, possible surface collar off slightly so will use. Dip okay.										

PELANGIO EXPLORATION

Prospect: Grenfell SW Zone
DDH: JS2008 **Azimuth/Dip: 130/-55**
Core Size: NQ **Tests: see last page**
CLAIM: L522691 **EOH:113.85**

Grid Location: Line 3W 150 N (Historical SGX Grid 2012)
UTM:559992E 5336066N Nad 83 Zone 17
Date Started: Feb.1/20 Date Completed: Feb.3/20
Core Storage: Pelangio Office Connaught Ontario

Drill Company:
NPLH Drilling
Logged By:
K.Filo

Completion of Logging:
February 9 2020

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	2.40	Casing	CAS	Note, casing left in hole.										
2.40	68.15	Gabbro	6G	At 2.40 to 19.15 m	20802	2.40	3.00	0.60	12	0.012				
				This unit is coarse grained and light grey in color. Like other	20803	3.00	4.50	1.50	10	0.01				
				holes logged to date the gabbro is made up of plagioclase	20804	4.50	6.00	1.50	9	0.009				
				feldspar, ferro mag minerals mainly amphiboles and some	20805	6.00	7.50	1.50	5	0.005				
				quartz. The unit is fairly hard and can be scratched with a	20806	7.50	9.00	1.50	18	0.018				
				knife with some effort & the unit has no HCL reaction.	20807	9.00	10.50	1.50	6	0.006				
				The unit is locally mangnetic over meter or so intervals	20808	10.50	12.00	1.50	331	0.331				
				(5% of interval at most) but where mangetic some	20809	12.00	13.50	1.50	193	0.193				
				magnetite present. Very little in the way of quartz veining	20810	blank			6	0.006				
				Some minor quartz calcite microstringers from 9.5-11noted.	20811	13.50	15.00	1.50	73	0.073				
				Some patchy epidote alteration noted particularily from 12	20812	15.00	16.50	1.50	8	0.008				
				to 15 m along with a few stringers of epidote throughout	20813	16.50	18.00	1.50	6	0.006				
				interval. Very minor disseminated pyrite and rare pyrite	20814	18.00	19.50	1.50	9	0.009				
				stringer, estimate of trace pyrite over entire interval.	20815	19.50	21.00	1.50	19	0.019				
				Relatively competent interval. Small blocky broken fault	20816	21.00	22.50	1.50	9	0.009				
				zone with some iron carbonate in fault from 13.8 to 14 m.	20817	22.50	24.00	1.50	9	0.009				
				Lower contact at 5 deg to CA. Also, some minor slips at 15	20818	24.00	25.50	1.50	10	0.01				
				to 20 deg to CA and a number of fractures at 30 and 60	20819	25.50	27.00	1.50	6	0.006				
				deg to CA in general.	20820	std221			1140	1.14				
				At 19.15 to 36.00	20821	27.00	28.50	1.50	19	0.019				
				Continuation of gabbro unit as described in initial interval	20822	28.50	30.00	1.50	7	0.007				
				above. This unit is a grey color and medium to coarse	20823	30.00	31.50	1.50	11	0.011				
				grained. It is particularily coarse grained from 33-35.55 m.	20824	31.50	33.00	1.50	10	0.01				
				Again unit is fairly hard but can be scratched with a knife	20825	33.00	34.50	1.50	9	0.009				
				with some effort. The unit has no HCL reaction. Almost	20826	34.50	35.55	1.05	11	0.011				
				non existant response to magnet overall except for strong	20827	35.55	36.00	0.45	7	0.007				
				response from 28-30 m and 33-35.55 where mangnetite										
				noted. Pyrite content very low, again trace at best. Very										
				few quartz or quartz calcite stringers, some present from										
				35.55 to 36.00 where some leucoxene observed in a										
				section of unit that is more medium to finer grained.										
				Minor fault note from 25.00 to to 25.40 at 5 deg to CA.										
				Again this unit is very competent with a few minor slip										
				planes at 15 deg to CA and fractures at 60 and 30 deg										
				to CA in general. A few epidote stingers noted as well.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
2.40	68.15	Gabbro	6G	At 36.00 to 53.00	20828	36.00	37.50	1.50	47	0.047				
		(continued)		Continution of medium to coarse grained, grey gabbro unit	20829	37.50	39.00	1.50	7	0.007				
				with mineralogical make up similar to initial descritption in	20830	blank			< 5	<0.005				
				this hole described above. No significant veining; quartz	20831	39.00	40.50	1.50	7	0.007				
				or quartz calcite observed. Some epidote stringers noted	20832	40.50	42.00	1.50	< 5	<0.005				
				and some local patchy epidote alteration in the latter few	20833	42.00	43.50	1.50	< 5	<0.005				
				meters of this interval in particular. The unit does not react	20834	43.50	45.00	1.50	< 5	<0.005				
				to HCL and is hard but can be scratched with a knife with	20835	45.00	46.50	1.50	< 5	<0.005				
				some effort. For the most part this particular interval is	20836	46.50	48.00	1.50	< 5	<0.005				
				weakly to strongly magnetic with some minor sections that	20837	48.00	49.50	1.50	< 5	<0.005				
				have no magnetic response. No major structural features	20838	49.50	51.00	1.50	< 5	<0.005				
				noted. Unit has a few typical minor slips at about 10-15 deg	20839	51.00	52.50	1.50	5	0.005				
				to CA and again some fractures at 30-35 deg to CA and	20840	std221			1120	1.12				
				60 deg to CA in general. Overall a very competent unit.	20841	52.50	54.00	1.50	24	0.024				
				Sparse pyrite content around trace to 0.5% maximum.	20842	54.00	55.50	1.50	< 5	<0.005				
					20843	55.50	57.00	1.50	< 5	<0.005				
				At 53.00 to 68.15	20844	57.00	58.50	1.50	< 5	<0.005				
				Continuation of gabbro unit again, minrealogically as per	20845	58.50	60.00	1.50	< 5	<0.005				
				description in initial interval above. This particular interval	20846	60.00	61.50	1.50	< 5	<0.005				
				is medium to coarse grained for the most part with the	20847	61.50	63.00	1.50	5	0.005				
				exception of an interval from 63.70-64.80 where unit is	20848	63.00	63.70	0.70	7	0.007				
				more fine to medium graind and a number of quartz calcite	20849	63.70	64.80	1.10	12	0.012				
				stringers present in this section at 50 deg to CA assoc.	20850	64.80	66.00	1.20	14	0.014				
				with some leucoxenes. This short interval and a section of	20851	66.00	67.00	1.00	6	0.006				
				about 0.5 meters prior to lower contact are basically the	20852	67.00	67.50	0.50	25	0.025				
				only areas within this interval with some quartz/quartz	20853	67.50	68.15	0.65	12	0.012				
				calcite stringers. The unit contains a few epidote stringers										
				throughout it as well. The unit is hard but can be scratched										
				with a knife with some effort. There is generally a weak										
				to moderate magnetic response throughout unit with some										
				shorter intervals with no response (minor). Again this unit										
				is a grey color. Some rare patches of epidote alteration										
				present locally over a few cm noted. Pyrite mineralization										
				trace to 1/2% overall with the exception of last 0.5 m										
				above contact, this last 0.5 m has about 5% plus pyrite.										
				Very competent interval with a few minor slips between										
				59.5 and 61.5 at 10-15 deg to CA. A few fractures noted										
				and these are generally at 60 deg to CA. Lower contact										
				along a distinct narrow fault at 68.15 at 80 deg to CA with										
				some gouge on fault plane.										
68.15	75.80	Mafic Dyke	6U	Light grey colored very fine grained mafic dyke. The unit is	20854	68.15	69.00	0.85	9	0.009				
				of moderate hardness and totally non magnetic and has a	20855	69.00	70.00	1.00	7	0.007				
				weak reaction to HCL. Fairly significant amouunt of	20856	70.00	71.00	1.00	9	0.009				
				randomly oriented quartz calcite microstingers making up										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				about 4-5% of unit overall and quartz veins noted from	20857	71.00	71.90	0.90	10	0.01				
				72.05-72.30 with contacts at 20 deg to CA and smaller vein	20858	71.90	72.30	0.40	16	0.016				
				from 73.90-74.05 m with upper contact at 20 deg to CA and	20859	72.30	73.40	1.10	6	0.006				
				lower contact at 30 deg to CA. Some chalcopyrite noted	20860	blank			< 5	<0.005				
				in smaller vein. This entire interval well mineralized with	20861	73.40	73.90	0.50	12	0.012				
				disseminated pyrite, estimate of 7% plus but sections over	20862	73.90	74.40	0.50	19	0.019				
				short intervals with 10% pyrite. Small blocky broken fault	20863	74.40	75.00	0.60	204	0.204				
				zone noted from 70.83 to 70.95, upper contact 5 deg to CA.	20864	75.00	75.80	0.80	9	0.009				
				A number of slips noted at 10 deg to CA in general and										
				fractures noted as well at 30-40 deg to CA in general,										
				overall fairly competent interval. Unit has some rafts of										
				gabbroic material within the dyke from 72.30 to 73.40										
				Lower contact at 30 deg to CA. Lower contact along a										
				slip plane.										
75.80	113.85	Gabbro	6G	at 75.80 to 86.75	20865	75.80	76.80	1.00	8	0.008				
				This is a gabbro unit with a mineralogical make up similar	20866	76.80	78.00	1.20	7	0.007				
				to orginal description of gabbro in intial part of this hole.	20867	78.00	79.50	1.50	< 5	<0.005				
				The unit is grey in color and medium to coarse grained.	20868	79.50	81.00	1.50	< 5	<0.005				
				First meter or so beyond contact at 75.80 has some finer	20869	81.00	82.50	1.50	< 5	<0.005				
				grained bleached sections with a few quartz calcite str.;	20870	std221			1100	1.1				
				also a similar bleached finer grained section with quartz	20871	82.50	83.50	1.00	< 5	<0.005				
				calcite stringers noted from 85.75-86 m. Outside of these	20872	83.50	83.90	0.40	< 5	<0.005				
				two aforementioned sections little or no quartz/quartz	20873	83.90	84.20	0.30	< 5	<0.005				
				calcite stringers. In this section there is no HCL reaction.	20874	84.20	85.00	0.80	< 5	<0.005				
				The exception is the areas with the quartz calcite	20875	85.00	86.00	1.00	< 5	<0.005				
				stringers where wall rock outside of actual stringers does	20876	86.00	87.00	1.00	< 5	<0.005				
				react to HCL. A larger quartz calcite vein is present from										
				83.9 to 84.20 m. This unit has minor pyrite estimate of trace.										
				Variable response to magnet ranging from strongly										
				magnetic sections to no response at all over section of										
				a few meters. Some very localized patchy epidote										
				alteration observed and eptidote stringers present. In										
				sections with bleaching some leucoxene alteration noted.										
				In general this unit is hard but can be scratched with knife										
				with a little effort. Again a relatively competent interval with										
				a few slips at 15 deg to CA in general and fractures at 30										
				and 60 deg to CA in general.										
				At 86.75 to 113.85										
				Again continuation of gabbro unit with mineralogical make	20877	87.00	87.70	0.70	6	0.006				
				up as described in initial interval in this hole. The unit varies	20878	87.70	88.50	0.80	6	0.006				
				in color from light grey to darker grey depending on the	20879	88.50	89.24	0.74	< 5	<0.005				
				amount of plagioclase feldspar versus ferro mag mineral	20880	blank			< 5	<0.005				
				content. The unit is medium to coarse grained and has no										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				HCL reaction.Some patchy epidote alteration, paricularily	20881	89.24	90.00	0.76	< 5	<0.005				
				noticeable in first few meters of this interval, some epidote	20882	90.00	91.50	1.50	< 5	<0.005				
				stringers locally throughout this interval but pretty minor	20883	91.50	93.00	1.50	< 5	<0.005				
				for the most part. No significant quartz or quartz calicite	20884	93.00	94.50	1.50	< 5	<0.005				
				veining or stringers observed; one small 2-3 cm veinlet	20885	94.50	96.00	1.50	< 5	<0.005				
				noted at 87.47-87.50 with some leucoxene noted on	20886	96.00	97.50	1.50	< 5	<0.005				
				salvage. Unit is of moderate hardness & can be scratched	20887	97.50	99.00	1.50	7	0.007				
				with knife with some effort. Over all fairly strongly	20888	99.00	100.50	1.50	< 5	<0.005				
				magnetic interval, some magnetite noted in coarser	20889	100.50	102.00	1.50	< 5	<0.005				
				grained sections. Noted that more plagioclase rich section	20890	std221			1120	1.12				
				of this interval less magnetic to non magnetic such as	20891	102.00	103.50	1.50	6	0.006				
				section from 95-98 and 110-113 m. Pyrite content minimal	20892	103.50	105.00	1.50	5	0.005				
				estimate of trace pyrite. A small very fine grained mafic	20893	105.00	106.50	1.50	5	0.005				
				dyke that looks simialar in composition to the larger dyke	20894	106.50	108.00	1.50	< 5	<0.005				
				described above is noted from 88.50 to 89.24. The dyke	20895	108.00	109.50	1.50	< 5	<0.005				
				has an upper contact along a slip plane oriented at 10 deg	20896	109.50	111.00	1.50	5	0.005				
				to CA and lower contact at 30 deg to CA. The dyke has 1-2	20897	111.00	112.50	1.50	< 5	<0.005				
				per cent pyrite and no veining. It is non magnetic and has	20898	112.50	113.85	1.35	12	0.012				
				a very weak HCL reaction and it is of moderate hardness.										
				Overall this gabbro is a very competent unit with a number of										
				high angle slips at 10-15 deg to CA; a very minor small										
				brittle fault noted at 98.50 t0 98.80. Again a number of										
				fractures present generally at 60 and 30 deg to CA.										
				EOH 113.85										
				Core stored at Pelangio Exploration field office in										
				Connaught Ontario.										
				Test at 60 had Az of 138.6, corrected Az of 127.6 m and										
				a dip of -56.2 degrees. Questionable az as hole drilled along										
				surface grid line at 130, down hole magnetic problem? As										
				2.4 deg in 60 m a lot but surface collar likely off slightly and										
				thus will use.										

PELANGIO EXPLORATION

Prospect: Shea Vein Target | **Grid Location: N/A See UTM Coordinates** | **Drill Company:** | **Core Storage: Pelangio Field Office, Connaught Ontario.**

DDH: JS2009 | **Azimuth/Dip: 47/-51** | **UTM:560160E 5336026N Nad 83 Zone 17** | NPLH Drilling

Core Size: NQ | **Tests: see last page** | **Date Drilled: Sept.15 to Sept.17 2020** | **Logged by:**

CLAIM: L512579 | **EOH:81.20** | **Date Logged: Oct.7 to Oct 8 2020** | K. Filo

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	0.80	Casing	CAS	Note, casing left in hole.										
0.80	50.00	Gabbro	6G	at 0.80 to 25.00 m										
				This is a medium grained light grey colored unit, typical of	26158	0.80	2.00	1.20	9		< 5		< 5	
				gabbro unit found on property. It is made up of ferro mag	26159	2.00	3.00	1.00	5		< 5		< 5	
				minerals (mainly amphiboles), plagioclase and some quartz	26160	blank			3		< 5		< 5	
				and minor biotite mica. Numerous fractures and slip planes	26161	3.00	4.50	1.50	398		< 5		< 5	
				for first 12 meters or so. Fractures tend to be at 30 and 60	26162	4.50	6.00	1.50	10		< 5		< 5	
				deg to CA in general in first 12 m and slips at 15-20 deg	26163	6.00	7.50	1.50	6		< 5		< 6	
				to CA in general. Beyond 12 m more competent but similar	26164	7.50	9.00	1.50	21		< 5		< 5	
				orientation to slips and fractures more like 45 deg to CA	26165	9.00	10.50	1.50	6		< 5		< 5	
				in general. Short but significant fault noted fom 9.0 to 10.3,	26166	10.50	12.00	1.50	7		< 5		< 5	
				upper contact 4-5 deg to CA and this fault is again a brittle	26167	12.00	13.50	1.50	4		< 5		< 5	
				fault as per numerous faults on this property. The fault	26168	13.50	15.00	1.50	70		< 5		< 5	
				zone is mainly broken blocky core with some ground rubble.	26169	15.00	16.50	1.50	16		< 5		< 5	
				Lower contact ground. The gabbro unit has no HCL reaction	26170	16.50	18.00	1.50	< 2		< 5		< 5	
				and is very hard, it can be scratched with effort. Unit is	26171	18.00	19.50	1.50	2		< 5		< 5	
				not altered but some weak bleaching from 7.5 to 9.0 m, a	26172	19.50	21.00	1.50	7		< 5		< 5	
				minor weak HCL reaction here (an exception). A few minor	26173	21.00	22.50	1.50	24		< 5		< 5	
				quartz stingers and a veinlet here at 7.5 to 9 m., not	26174	22.50	24.00	1.50	30		< 5		< 5	
				significant. Outside of this area minimal veining noted.										
				Locally some minor patches of epidote and a few stringers										
				of epidote. There is some dissemianted pyrite and esteimate										
				of 1/2 to 1% at best.										
				at 25.00 to 50.00	26175	24.00	25.50	1.50	13		< 5		< 6	
				This is a contiunation of gabbro unit. This particular interval	26176	25.50	27.00	1.50	4		< 5		< 5	
				is a very light grey color on fresh surface as it seems to	26177	27.00	28.50	1.50	< 2		< 5		< 5	
				have a high percentage of feldspar versus mafic minerals.	26178	28.50	30.00	1.50	3		< 5		< 5	
				The unit is still medium grained, and has no HCl reaction	26179	30.00	31.50	1.50	37		< 5		< 5	
				The unit weakly magnetic at very start of interval and then	26180	stdor221			1090		13		14	
				becomes strongly magnetic through out this section as	26181	31.50	33.00	1.50	4		< 5		< 5	
				a result of magnetite. Unit is still very hard and	26182	33.00	34.50	1.50	3		< 5		< 5	
				difficult to scratch with scribe. Extremely rare quartz str	26183	34.50	36.00	1.50	8		< 5		< 5	
				or two, not significant. Some epidote stringers noted and	26184	36.00	37.50	1.50	37		< 6		< 5	
				occassional patch of epidote alteration. Outside of local	26185	37.50	39.00	1.50	< 2		< 6		< 5	
				patchy epidote unit is not altered. Unit has a number of	26186	39.00	40.50	1.50	< 2		< 5		< 5	
				small brittle faults over short intervals at 25-25.75 oriented	26187	40.50	42.00	1.50	3		< 5		< 5	
				subparallel to CA.; 29.80-30.10, oriented subparallel to CA	26188	42.00	43.00	1.00	10		< 5		< 5	

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				Also some other distinct slip planes and minor slip planes	26189	43.00	44.00	1.00	< 2		< 5		< 5	
				subparallel to CA and at 15 deg to CA respectively. Again	26190	blank			< 2		< 5		< 5	
				some fractures noted at 60 and 45 deg to CA in general.	26191	44.00	45.00	1.00	< 2		< 5		< 5	
				This unit is a competent unit overall. Estimate of 1%	26192	45.00	46.00	1.00	3		< 5		< 5	
				pyrite noted in disseminated form overall. Locally pyrite 1 to	26193	46.00	47.00	1.00	< 2		< 5		< 5	
				2%. Lower contact with vein at 50 deg to core axis and	26194	47.00	48.00	1.00	4		< 5		< 5	
				associated with a slip plane	26195	48.00	49.00	1.00	< 2		< 5		< 5	
					26196	49.00	50.00	1.00	5		< 5		< 5	
50.00	50.30	Quartz Vein	Qv	Basically a grey white quartz in the target area of the										
				Shea Vein. No mineralization noted in vein. Lower contact	26197	50.00	50.30	0.30	5		< 5		< 5	
				of vein at 50 deg to CA and associated with a slip plane.										
50.30	54.20	Gabbro	6G	This is a medium grained, light grey gabbro very similar to	26198	50.30	51.00	0.70	28		< 5		< 5	
				That described in the initial part of this hole. This particular	26199	51.00	52.00	1.00	617		< 5		< 5	
				interval has fairly substantial leucoxene associated with it.	26200	52.00	53.00	1.00	13		< 5		< 5	
				Some minor quartz clots and veins running sub parallel to	26201	53.00	53.50	0.50	164		< 5		< 5	
				CA such as at 53.5 to 53.80; this particular vein well	26202	53.50	54.20	0.70	87		< 5		< 5	
				mineralized with pyrite. The unit is very hard to scratch and										
				has a moderate HCL reaction. Estimated pyrite content of										
				0.5 to 1% at best. Competent unit with some fractures at 60										
				deg to CA and rare minor slips at 15 deg to CA. Lower										
				contact with vein at 30 deg to CA.										
54.20	54.60	Quartz Vein	Qv	White quartz vein with some leucoxene bearing wall rock	26203	54.20	54.60	0.40	2330		< 5		< 5	
				fragments and some local becclation & some minor K-spar										
				veinlets, no signifcant mineralization noted. Little information										
				on Shea vein target, section from 50.00 to 52.60 including this										
				vein thought to be target area from up dip projection from										
				level to surface pit.										
54.60	81.20	Gabbro	6G	This is a very light grey medium grained unit. It appears	26204	54.60	55.00	0.40	16		< 5		< 5	
				to have a substantial amount of feldspar giving it a lighter	26205	55.00	56.00	1.00	1790		< 5		< 5	
				color. Overall a strongly magnetic interval with some	26206	56.00	57.00	1.00	5		< 5		< 5	
				magnetite present. Localized non magnetic sections	26207	57.00	58.00	1.00	6		< 5		< 5	
				associated with some patchy epidote alteration over short	26208	58.00	59.00	1.00	75		< 5		< 5	
				intervals. Some tiny microstingers & veinlets <1/2 cm of	26209	59.00	60.00	1.00	160		< 5		< 5	
				quartz calcite and rarely quartz alone generally at 60 deg	26210	stdor221			1060		11		14	
				to CA generally parallel to fracture set in this unit. This is	26211	60.00	61.00	1.00	5		< 5		< 5	
				a competent unit with a few minor slip planes as well	26212	61.00	62.00	1.00	91		< 5		< 5	
				generally at 15 deg to CA. Unit is not altered, on occasion	26213	62.00	63.00	1.00	16		< 5		< 5	
				where there is some microveinlets of quartz calcite some	26214	63.00	64.00	1.00	20		< 5		< 5	
				leucoxene sometimes present. It should be noted that	26215	64.00	65.00	1.00	9		< 5		< 5	
				these stringers make up only 2% of entire unit at best and	26216	65.00	66.00	1.00	9		< 5		< 5	
				are localized. Some epidote stringers also present in unit	26217	66.00	67.00	1.00	71		< 5		< 5	
				but not significant. The unit is fairly hard and difficult to	26218	67.00	68.00	1.00	66		< 5		< 5	
				scratch with a knife. Pyrite content low at about 1/2-1%	26219	68.00	69.00	1.00	4		< 5		< 5	

From	To	Rock Type	Code	Description
				generally in disseminated form but also rare stringer or
				clot on a slip plane. Last few meters from 78 to 81.20
				increase in pyrite content, estimate of 2-2.5% diss. and
				a few stringers of pyrite and rare fleck of chalcopyrite.
				EOH 81.20
				Tests
				Downhole test sheets misplaced by driller unavailable

Sample#	From	To	Meters	Au ppb	Au g/t	Pt ppb	Pt g/t	Pd ppb	Pd g/t
26220	blank			< 2		< 5		< 5	
26221	69.00	70.00	1.00	8		< 5		< 5	
26222	70.00	71.00	1.00	23		< 5		< 5	
26223	71.00	72.00	1.00	15		< 5		< 5	
26224	72.00	73.00	1.00	11		< 5		< 5	
26225	73.00	74.00	1.00	582		< 5		< 5	
26226	74.00	75.00	1.00	30		< 5		< 5	
26227	75.00	76.00	1.00	59		< 5		< 5	
26228	76.00	77.00	1.00	7		< 5		< 5	
26229	77.00	78.00	1.00	5		< 5		< 5	
26230	78.00	79.00	1.00	4		< 5		< 5	
26231	79.00	80.00	1.00	5		< 5		< 5	
26232	80.00	81.20	1.20	5		< 5		< 5	

PELANGIO EXPLORATION

Prospect: Grenfell Central Target
DDH: JS2010 **Azimuth/Dip: 047/-63**
Grid:N/A **Tests: see last page**
CLAIM: L512579 **EOH:90**

Grid Location: N/A See UTM Coordinates
UTM:560249E 5336087N Nad 83 Zone 17
Date Drilled: Sept.17 to Sept 18 2020
Date Logged: Sept 30 2020 to Oct.2 2020

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Core Storage: Pelangio Field Office, Connaught Ontario.

From	To	Rock Type	Code	Description
0.00	2.92	Casing	CAS	Note, casing left in hole.
2.92	14.60	Mafic Volcanic (Massive)	2MS	This is a fine grained to aphanitic massive mafic volcanic that is grey in color. Moderate in hardness and can be scrached with knife with moderate effort. Unit has no HCL reaction and is non magnetic. The unit is unaltered. No significant mineralization and rare quartz microstinger or two noted. Reasonably competent unit with a few minor slip planes noted at 10-30 deg to CA and a few fractures at about 80 deg to CA. Note small coarse grained mafic dyke noted from 11 to 11.25
14.60	17.80	Fault Zone	FZ	This is a brittle fault zone with upper contact ground and blocky. The host rock of the fault zone is massive mafic volcanic as described above. Fault zone comprised of Numerous small slips at 10 deg to CA. and a number of fracture planes. Locally a couple of small quartz stringers with some hematite, these are less than 2cm.Lower contact associated with slip at 10 deg to CA and some ground core.
17.80	21.50	Mafic Volcanic (Massive)	2MS	Continuation of fine grained to aphanitic grey colored mafic volcanic. Unit is of moderate hardness and non magnetic. Unit unaltered and contains no significant sulphide (trace). A few very minor tiny microstingers of quartz, not significant, unit has no HCL reaction. Relatively competent unit with a few slips at 10-15 deg to CA and some fractures at 70-80 deg to CA. Lower contact at 30 deg to CA.
21.50	25.15	Gabbro Dyke	6G	This a darker grey colored medium go finer grained gabbro dyke. Portions within the middle of the dyke are more med grained while margins somewhat finer. Some distinct plagioclase lathes evident within central portion of dyke. Dyke also appears to contain some mafic volcanic rafts. Unit is non magnetic and has no HCL reaction, unaltered unit. No significant sulphide minreralization and a few tiny microstringers of quartz. Similar to volcanics above a number of slips at 10-15 deg to CA and fractures at 80 deg to CA in general. Moderate hardness.

Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
26001	2.92	4.00	1.08	0.006					
26002	4.00	5.00	1.00	0.008					
26003	5.00	6.00	1.00	0.011					
26004	6.00	7.50	1.50	0.011					
26005	7.50	9.00	1.50	0.012					
26006	9.00	10.50	1.50	0.018					
26007	10.50	12.00	1.50	0.01					
26008	12.00	13.50	1.50	0.009					
26009	13.50	15.00	1.50	0.008					
26010	blank			0.006					
26011	15.00	16.50	1.50	0.01					
26012	16.50	18.00	1.50	0.006					
26013	18.00	19.50	1.50	0.011					
26014	19.50	21.00	1.50	0.009					
26015	21.00	21.50	0.50	0.009					
26016	21.50	23.00	1.50	0.007					
26017	23.00	24.00	1.00	0.008					
26018	24.00	25.15	1.15	0.009					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				Last 1 to 1.5 meters of unit blocky and broken proximal to										
				fault zone below but prior to this relatively competent unit.										
				Lower contact at fault ground up.										
25.15	25.70	Fault Zone	FZ	Brittle block rubble in fault zone, ground up. Host rock of	26019	25.15	26.00	0.85	0.01					
				fault zone appears to be gabbro dyke as described above	26020	26.00	27.00	1.00	0.009					
				Lower contact of fault ground up.	26021	27.00	28.00	1.00	0.023					
					26022	28.00	29.00	1.00	0.008					
25.70	41.40	Mafic Volcanic	2MS	25.70 to 41.40	26023	29.00	30.00	1.00	0.008					
		(Massive)		Initially a fine to aphanitic grey colored mafic volcanic with	26024	30.00	31.00	1.00	0.008					
				some sections which are slightly coaser more fine to med	26025	31.00	32.00	1.00	< 0.005					
				grained (28.5-30.5 m). Overall fairly competent unit except	26026	32.00	33.00	1.00	< 0.005					
				for about 1 m beyond fault contact. A few slips present	26027	33.00	34.00	1.00	0.026					
				again these are generally 10 deg to CA. and fractures	26028	34.00	35.00	1.00	0.008					
				at 40 and 75 deg to CA in general. Minor fault at 30.5	26029	35.00	36.00	1.00	0.008					
				associated with some quartz calcite stringers. Note,	26030	stdors221			1.03					
				beyond fault increase in micorstingers of quartz calcite at	26031	36.00	37.00	1.00	0.02					
				70-80 deg to CA. Unit itself still has no HCL reaction and is	26032	37.00	38.00	1.00	0.041					
				basically unaltered. Some localized wk magnetic response	26033	38.00	39.00	1.00	0.085					
				noted in unit. A few tiny micro veinlets of epidote also	26034	39.00	40.00	1.00	< 0.005					
				noted beyond 30.5 m. This unit has traces of disseminated	26035	40.00	41.00	1.00	0.194					
				pyrite locally, less than 1/2%. Moderate hardness, can be	26036	41.00	42.00	1.00	0.047					
				scratched with knife with a little effort. Increase in epidote										
				stringers in last few meters of this interval (33.50 to 41.40).										
				From 40.00 to 40.6 increase in pyrite 4-5% in this short										
				scection mainly in a few stringrs. Also some hyaloclastite										
				noted at 40.10 to 40.15.										
41.40	46.10	Fault Zone	FZ/2U	Upper contact of fault zone along slip plane at 20 deg to	26037	42.00	43.50	1.50	< 0.005					
				CA. This is a brittle blocky broken fault zone with significant	26038	43.50	45.00	1.50	0.005					
				rubble and grinding of core. The unit hosting the fault is	26039	45.00	46.00	1.00	< 0.005					
				still a mafic volcanic unit that appears to have some	26040	blank			0.009					
				angular breccia fragments associated with it. It is more										
				medium to fine grained and still has a grey color, non										
				magnetic,and has no HCL reaction. It is fairly soft perhaps										
				slightly chloritic. No significant veining or mineralization										
				noted within the fault zone. Lower contact along slip plane										
				with gouge and slickenslides, the slickenslides are at about 80										
				deg to CA and the fault plane at about 5 deg to CA or										
				subparallel to CA. Note, fault zone less blocky and broken										
				from 43.5 to lower contact of fault.										
46.10	56.00	Pillowed Mafic/Mafic	2P/2H	This is a fine grained grey colored unit with a few distinct	26041	46.00	47.00	1.00	0.005					
		Hyaloclastite		pillow salvages noted and an excellent example of	26042	47.00	48.00	1.00	0.011					
				hyaloclastite noted from 50.5-56 m. This unit is very hard	26043	48.00	49.00	1.00	< 0.005					
				and difficult to scratch with a knife, some silicification?	26044	49.00	50.50	1.50	0.005					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				The unit is non magnetic and no HCl reaction, very minor	26045	50.50	51.00	0.50	0.005					
				pyrite noted, estimate of trace. A few quartz calcite str	26046	51.00	52.50	1.50	0.005					
				noted (rare) & some minor epidote stringers as well. Some	26047	52.50	54.00	1.50	< 0.005					
				localized leucoxene noted within the section with	26048	54.00	55.00	1.00	< 0.005					
				hyaloclastite. Very competent unit with a few slip planes	26049	55.00	56.00	1.00	< 0.005					
				generally at 10-15 deg to CA and some fractures at 80 &										
				45 deg to CA. This end of this unit appears to be marked by										
				an abrupt end to hyaloclastite unit at 20 deg to CA.										
56.00	60.80	Mafic Volcanic	2U	This is a dark grey to grey colored mainly massive volcanic	26050	56.00	57.00	1.00	0.006					
				with some very short intervals with some flow breccia.	26051	57.00	58.50	1.50	0.005					
				The unit is extremely hard and near impossible to scratch	26052	58.50	60.00	1.50	0.007					
				with a scribe, unit thought to be silcified. Unit is fine grained	26053	60.00	60.80	0.80	0.042					
				and locally moderately magnetic. There is no HCL reaction.										
				No significant sulphides noted. A rare quartz calicte str noted,										
				not significant and a few epidote stringers noted as well.										
				Very competent unit with a few fractures at 45 and 80 deg										
				to CA.										
60.80	78.00	Gabbro	6G,Por	This is a medium grained grey colored gabbro unit. It is	26054	60.80	62.00	1.20	0.019					
		(Feldspar		medium graind and primarily composed of ferro mag	26055	62.00	63.00	1.00	0.013					
		Porphyritic)		minerals, minor quartz and feldspar. The unit is unusual as	26056	63.00	64.50	1.50	0.162					
				it has coarse grained feldspars giving it a porphyritic	26057	64.50	66.00	1.50	0.033					
				appearance. In a number of instances the feldspars appear	26058	66.00	67.50	1.50	0.103					
				to coalesce, a localized glomophyric appearance. The unit	26059	67.50	69.00	1.50	0.092					
				is very competent looking, with no major structure noted,	26060	stdor221			1.07					
				some minor slips at 10-15 deg to CA typical of that seen	26061	69.00	70.50	1.50	0.518					
				in this hole and a few fractures 40-45 deg to CA. The unit	26062	70.50	72.00	1.50	0.016					
				has a weak to non existant HCL reaction, and unit is	26063	72.00	73.50	1.50	0.027					
				non magntic. No significant veining noted, other than a few	26064	73.50	75.00	1.50	0.021					
				rare quartz calcite micro stringers and a few epidote str.	26065	75.00	76.00	1.00	0.035					
				This unit is not altered per say but some of the larger	26066	76.00	77.00	1.00	0.375					
				feldspar porphyroblasts are sericitic locally. Note, upper	26067	77.00	78.00	1.00	0.416					
				contact was chilled for a couple of meters and contains										
				a few small rafts of volcanic, while lower contact more										
				gradational with phenocrysts becoming less and less and										
				actual contact with unit below ground. The unit is fairly hard										
				and difficult to scratch with a scribe. Estimate of 1/2%										
				disseminated pyrite overall. Note, becomes magnetic in										
				last couple of meters and some magnetite noted.										
78.00	90.00	Gabbro	6G	This gabbro unit typical of gabbro units described	26068	78.00	79.00	1.00	0.01					
				previously in early 2020 series holes (JS2004 to JS2008).	26069	79.00	79.35	0.35	0.015					
				The unit is generally grey color, however first couple of	26070	blank			< 0.005					
				meters slightly bleached and a lighter grey color. The unit	26071	79.35	80.00	0.65	0.021					
				is made up of ferro mag minerals mainly amphiboles,	26072	80.00	81.00	1.00	0.012					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				feldspar and minor quartz. This section contains black	26073	81.00	82.50	1.50	0.147					
				magnetite grains and is strongly magnetic. The unit	26074	82.50	84.00	1.50	0.573					
				has a number of skeletal leucoxenes present particularily	26075	84.00	85.00	1.00	0.071					
				from 78-80 where the unit is bleached. The section from	26076	85.00	86.00	1.00	0.163					
				78-80 meters a number of tiny quartz calcite stringers at	26077	86.00	87.00	1.00	0.019					
				60 deg to CA and a small smoky grey quartz vein from	26078	87.00	88.00	1.00	0.008					
				79.20 to 79.35 associated with a small slip on the lower	26079	88.00	89.00	1.00	0.008					
				contact at 20 deg to CA. There is a small brittle blocky	26080	89.00	90.00	1.00	0.009					
				broken fault zone from 79.6 to 80 m with numerous slip										
				planes. The section from 78-80 is thought to be the Central										
				Zone target area from historical section and plan data.										
				Outside of the fault just described unit is fairly competetent										
				with a few slips again at 10-15 deg to CA in general and										
				some fractures at 60 and 45 deg to CA in general. A few										
				epidote stringers also noted in unit. Bleached section reacts										
				to HCL but outside of this no reaction. The unit is fairly hard										
				and difficult to scratch. Overall estimte of 1% diss.										
				pyrite in unit,perhaps 1-2% in last couple of meters.										
				EOH 90.00 M.										
				Tests:										
				51m Uncorrected Az: 54.2 deg Corrected Az 42.7 deg										
				Dip -62.7 deg										
				90m Uncorrected Az 56.7 deg Corrected Az 45.2 deg										
				Dip -62.6										
				Comment: Questionable az on 51 m test, poor test due to										
				possible magnetics considering test at 90 m almost perfect										
				Maybe best to ingore az on 51 m test.										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area
DDH: JS2011 **Azimuth/Dip: 130/-62**
Grid:N/A **Tests: see last page**
CLAIM: L512579 **EOH:90 M.**

Grid Location: N/A See UTM Coordinates
UTM:560326E 5336231N Nad 83 Zone 17
Date Drilled Sept 21 to Sept 22 2020
Date Logged: Oct. 5 2020 to Oct.6 2020

Drill Company:
NPLH Drilling
Logged by:
K. Filo

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	1.70	Casing	CAS	Note, casing left in hole and a series of overburden boulders in box above 1.7 which were not sampled.										
1.70	41.20	Gabbro	6G	at 1.70 to 27.65 This is a grey colored medium grained gabbro intrusive comprised of ferro mag minerals mainly amphiboles, plagioclase feldspar and some quartz, some blebs of magnetite noted and thus unit fairly magnetic, some minor short intervals generally less tha a meter which are non magnetic. No HCL reaction to gabbro. Some rare quartz calcite stringers basically the only spot in this unit where there is some stringers or microveintlets noted at 25-26 m, veinlets react to HCL. Some weak bleaching noted from 25-26 m but overall there is no signficant alteration noted in unit. The gabbro unit is extremely hard to scratch, unit considered very hard. Estimate of 2-3% disseminated pyrite noted in the unit. Note, some leucoxene noted from 25-26 meters associated with bleached areas. This unit is considered a competent unit with the exception of intrval from 22-24 m where there was siginficant blocky & ground core.; possible blocky fault zone. A few slip planes at about 15 deg to CA generally. Fractures at 70 deg to CA Note from 25-26 m microstringers oriented 80 deg to CA.	26081	1.70	3.00	1.30	< 0.005					
					26082	3.00	4.50	1.50	< 0.005					
					26083	4.50	6.00	1.50	0.006					
					26084	6.00	7.50	1.50	0.009					
					26085	7.50	9.00	1.50	< 0.005					
					26086	9.00	10.50	150	0.054					
					26087	10.50	12.00	1.50	< 0.005					
					26088	12.00	13.50	1.50	< 0.005					
					26089	13.50	15.00	1.50	< 0.005					
					26090	stdor221			1.04					
					26091	15.00	16.50	1.50	0.005					
					26092	16.50	18.00	1.50	0.007					
					26093	18.00	19.50	1.50	0.008					
					26094	19.50	21.00	1.50	0.007					
					26095	21.00	22.40	1.40	0.011					
					lost core	22.40	23.75	1.35						
					26096	23.75	25.00	1.25	0.005					
					26097	25.00	26.00	1.00	0.036					
					26098	26.00	27.00	1.00	0.015					
				at 27.65 to 41.20 This secion is a continuation of the gabbro unit just described above. Similarily it is meduium grained, grey in color and has no HCL reaction. Still strongly magnetic to about 34.5 meters, this initial portion of this interval has magnetite present. Beyond 34.5 basically non magnetic. The unit still has about 2-3% pyrite generally disseminated but occassional stringer noted as well. Rare quartz carb or quartz noted in interval.A few epidote stringers noted and no significant quartz or quartz carb stringers or veins. Still a very competent unit with fractures at 45 and 70 deg to CA in general and slips at 15 deg to CA generlly (rare). No alteration noted, unit is still very hard and difficult to scratch. Towards lower contact unit becomes finer grained, chill margin. Lower contact at 30 deg to CA.	26099	27.00	28.50	150	0.011					
					26100	blank			0.007					
					26101	28.50	30.00	1.50	0.01					
					26102	30.00	31.50	1.50	0.369					
					26103	31.50	33.00	1.50	0.547					
					26104	33.00	34.50	1.50	0.024					
					26105	34.50	36.00	1.50	0.065					
					26106	36.00	37.50	1.50	0.925					
					26107	37.50	39.00	1.50	0.085					
					26108	39.00	40.00	1.00	0.094					
					26109	40.00	41.20	1.20	0.048					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
41.20	48.60	Massive Mafic Volcanic	2MS	This is a very fine grained light grey colored mafic volcanic. The unit is extremely hard and possibley silicified. This is a reasonably competent unit but last couple of meters are somewhat broken up proximal to major fault. Slip planes in unit again at 15 deg to CA in general and fractures in general at 40 and 60 deg to CA. Unit has no HCL reaction and it is non magnetic. One small quartz vein noted at 41.27 to 41.32 at 30 deg to CA with small 1-2 cm porphyritic salvage on vein. Note, small gabbroic dyke present from 42.36 to 43 meters. At 46.5 slighly softer and a little chloritic proximal to fault. Overall this unit has some minor pyrite, estimate of 1% max and generally localized.	26110	41.20	41.50	0.30	0.686					
					26111	41.50	42.36	0.86	0.059					
					26112	42.36	43.00	0.64	0.829					
					26113	43.00	44.00	1.00	0.392					
					26114	44.00	45.00	1.00	0.026					
					26115	45.00	46.50	1.50	0.007					
					26116	46.50	48.00	1.50	4.91					
48.60	53.20	Fault Zone (Major)	FZ	Start of fault marked by slip plane at 20 deg to CA. This is a major fault zone; typical of this project the fault is a brittle blocky broken zone with multiple slip planes and significant ground rubble making up the fault zone. The host rock of the fault is similar in compositon to mafic described above. The first meter or two softer and chlortic and then very hard rock typcial of that at start of mafic unit above. A small feldspar porphyritic dyke from 48.9-49.35 noted with some minor quartz, contact badly ground up.Lower contact 30 deg to CA on slip. A few quartz calcite stringers noted in fault, not significant and no significant sulphides noted.	26117	48.00	48.90	0.90	0.178					
					26118	48.90	49.40	0.50	0.221					
					26119	49.40	51.00	1.60	0.014					
					26120	stdor221			1.02					
					26121	51.00	52.50	1.50	0.094					
					26122	52.50	53.20	0.70	0.053					
53.20	56.95	Mafic Dyke	6U	This is a fine grained dark grey to black mafic dyke. The dyke has a speckled appearance as some feldspar noted in unit comprised predominatly of mafic minerals. The unit is non magnetic, has no HCL reaction and is fairly hard. Unit has about 2-3% disseminated pyrite. No veining of significance observed but a few small rafts of mafic volcanic noted within the dyke. Unit does not appear altered, and no major stucture noted in dyke, occassional fracture noted at 40 deg to CA; overall a competent unit. Lower contact at 50 deg to CA.	26123	53.20	54.00	0.80	0.033					
					26124	54.00	55.50	1.50	0.029					
					26125	55.50	56.95	1.45	0.018					
56.95	65.90	Mafic Volcanic	2U	This is a fine grained greyish green colored mafic volcanic with a few small dykes generally a few cm to less than 0.5 m.; compositionally similar to mafic dyke described immediately above. The unit is non magnetic, very hard and has no HCL reaction. The unit due to its hardness may be silicified. A few microstirngers of quartz noted from 60-61 m. and these are generally at 70 deg to CA. Some breccia associated with a few minor slip planes generally at 15 deg to CA. Some small quartz veins and vein fragments assoc. with these slip planes on occasion. Veins are small and	26126	56.95	58.00	1.05	0.025					
					26127	58.00	59.00	1.00	0.054					
					26128	59.00	60.00	1.00	0.079					
					26129	60.00	61.00	1.00	0.134					
					26130	blank			< 0.005					
					26131	61.00	62.00	1.00	0.338					
					26132	62.00	63.00	1.00	0.081					
					26133	63.00	64.00	1.00	0.2					
					26134	64.00	65.00	1.00	0.38					
					26135	65.00	65.90	0.90	0.463					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				generally less than 2 cm. Reasonabley competent unit but										
				fairly numerous fractures at 40 and 70 deg to CA in general.										
				Unit contains 2% disseminated pyrite, some chalco & pyrite										
				observed in a quartz clot at 63.60m. Projected up dip of										
				No.1 vein at or about 65 m. No major vein observed.										
65.90	67.40	Mafic Dyke	6U	Upper contact of dyke and volcanics associated with	26136	65.90	67.40	1.50	0.069					
				fracture at 15 deg to CA.This unit very similar to dyke										
				described above from 53.20 to 56.95. Unit is fine grained &										
				dark grey to black in color with no HCL reaction and no										
				response to magnet. Some small rafts of volcanic within dyke										
				Unit is predominantly composd of mafic minerals, a few										
				tiny white speckles noted thought to be feldspar. Estimate										
				of 2-3% disseminated pyrite. Rare quartz clot or two noted										
				with some pyrite and chalco. Competent unit with a few										
				slip planes again and fractres at 60 deg to CA in general.										
				This unit can be scratched with some effort & considered										
				hard but basically unaltered. Lower contact along fracture										
				at 30 deg to CA.										
67.40	83.75	Mafic Volcanic	2MS	This is a very fine grained to aphantitic mafic volcanic. It is	26137	67.40	68.00	0.60	0.279					
				grey to light grey in color. It is non magnetic and has no	26138	68.00	69.00	1.00	0.058					
				HCl reaction. The unit is very hard and significant effort	26139	69.00	70.50	1.50	0.128					
				required to scratch it, possible silicification of unit. Minimal	26140	70.50	72.00	1.50	0.17					
				pyrite content estimate overall of 1/2% pyrite at best. A few	26141	72.00	73.00	1.00	0.514					
				tiny microstringers of quartz calcite generally 80-85 deg	26142	73.00	73.95	0.95	0.071					
				to CA, these are minimal in extent and not considered	26143	73.95	75.10	1.15	0.014					
				signifiant. Relatively competent unit with fractures generally	26144	75.10	76.50	1.40	0.564					
				at 40 and 60 deg to CA in general and some minor slip	26145	76.50	78.00	1.50	0.162					
				planes at 20-30 deg to CA. Small blocky broken fault zone	26146	78.00	79.50	1.50	0.005					
				noted at 80.70 to 81.00. Occassional such as at 73.95-75.1.	26147	79.50	81.00	1.50	0.041					
				Lower contact at 30 deg to CA.	26148	81.00	82.50	1.50	0.01					
					26149	82.50	83.75	1.25	0.008					
83.75	84.63	Lamprophyre	6L	This is a grey colored unit comprised mainly of mafic	26150	stdor221			1.05					
		Dyke		minerals with substantial black mica typical of lamprophyre	26151	83.75	84.63	0.88	0.903					
				dykes in the Abitibi Belt. The unit is non magnetic and has										
				no HCL reaction and unit is considered hard as difficult to										
				scratch. The unit does not have any significant sulphide &										
				is not altered. The unit is medium grained. No veining of										
				any sort observed and competent interval. Somewhat										
				erratic lower contact.										
84.63	85.33	Mafic Dyke	6U	This unit is mainly compised of subangular fragments of	26152	84.63	85.33	0.70	0.046					
		(Diatreme)		various compositions including quartz feldspar porphyry.										
				Very little matrix material noted, where present mainly										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				mafic minerals. Some minor pyrite noted, no significant										
				veining present. Competent unit with no significant fractures										
				or slips. Non magnetic unit, wih no HCL reaction and an										
				extremely hard unit. Lower contact at 35 deg to CA.										
85.33	90.00	Mafic Volcanic	2MS	This is a fine grained, grey colored, massive mafic volcanic	26153	85.33	86.00	0.67	< 0.005					
	EOH			that is non magnetic, has no HCL reaction and is very hard	26154	86.00	87.00	1.00	0.039					
				and possibly silicified. A few minor quartz veinlets less than	26155	87.00	88.00	1.00	0.263					
				a cm or so wide. Trace of pyite at best. Competent unit	26156	88.00	89.00	1.00	0.038					
				with some fractures at 60 deg to CA and occassional slip	26157	89.00	90.00	1.00	0.053					
				at 15 deg to CA in general. EOH 90 m.										
				Tests										
				Depth: 51m										
				Test Az:141.6 deg Corrected: 130.1deg Dip: -61 deg										
				Depth: 90m										
				Test Az: 141.8 deg Corrected 130.3 deg Dip: -60.80										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area No.6 Vein Target
DDH: JS2013 **Azimuth/Dip: 20/-65**
Core Size: NQ **Tests: see last page**
CLAIM: L512579 **EOH:129.00**

Grid Location: N/A See UTM Coordinates
UTM:560325E 5336177N Nad 83 Zone 17
Date Drilled: Sept 18 to Sept 20 2020
Date Logged: Feb.14 2020 to Feb 16 2020

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Core Storage: Pelangio Field Office Connaught Ontario.

From	To	Rock Type	Code	Description
0.00	6.20	Casing	CAS	Note, casing left in hole.
6.20	21.00	Mafic Volcanic	2U	This is a fine grained grey mafic volcanic with a few small interevals of green altered volcanic with some amgdaloids, looks very simiar to unit described in JS2014 from 73.10 to 83.90. The unit is hard and difficult to scratch with a knife. Sections with amygdaloids may be possible pillow salvage? The unit does not have an HCL reaction, but there are a few qtz calcite microstingers at about 60-70 deg & 15 deg to CA which react to HCL. Microstringers pretty minor and make up about 1-2% of unit. Competent unit, a few fractures noted at 60-70 deg to CA in general similar to microstringer orientation. Some minor slip planes again at 10-15 deg to CA.; occassional hematite noted on slip planes. Unit is not magnetic. Sparsely mineralized with pyrite, perhaps 1/2-1% disseminated pyrite. Lower contact gradational.
21.00	40.00	Mafic Volcanic	2MS	at 21.00 to 40.00 Very massive looking fine grained grey colored volcanic that is non magnetic, and has no HCL reaction. Very minor quartz calcite stringers generally 80 deg to CA but less than 1% of unit. Estimate of trace to 1/2% pyrite. Very hard unit and difficult to scratch & does not appear altered. No significant structure observed other than a few fractures at 60 deg in general and minor slip plane or two at 10-15 deg to CA. Competent unit. Gradational contact.
40.00	58.15	Mafic Volcanic	2U	at 40.00 to 58.15 Again a fine grained grey black mafic volcanic that is somewhat unusual looking due to speckled appearance sproradically through unit. There are tiny flecks or poorly developed phenocrysts of a mafic mineral and tiny white flecks or poorly developed phenorcrysts of plagioclase. The unit is non magnetic and has no HCL reaction; unit is fairly hard and difficult to scratch. At 48.70 to 49.80 distinct fault plane sub parallel to CA.; reasonably competent unit but a number of minor slip plane at 5-10 deg through out the unit. Some fractures noted as well at 60

Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
26357	6.20	7.00	0.80	< 0.005					
26358	7.00	8.00	1.00	0.008					
26359	8.00	9.00	1.00	< 0.005					
26360	stdor221			1.11					
26361	9.00	10.50	1.50	< 0.005					
26362	10.50	12.00	1.50	< 0.005					
26363	12.00	13.50	1.50	0.006					
26364	13.50	15.00	1.50	< 0.005					
26365	15.00	16.50	1.50	< 0.005					
26366	16.50	18.00	1.50	< 0.005					
26367	18.00	19.50	1.50	0.015					
26368	19.50	21.00	1.50	0.006					
26369	21.00	22.50	1.50	< 0.005					
26370	blank			< 0.005					
26371	22.50	24.00	1.50	< 0.005					
26372	24.00	25.50	1.50	< 0.005					
26373	25.50	27.00	1.50	< 0.005					
26374	27.00	28.50	1.50	< 0.005					
26375	28.50	30.00	1.50	0.005					
26376	30.00	31.50	1.50	< 0.005					
26377	31.50	33.00	1.50	< 0.005					
26378	33.00	34.50	1.50	< 0.005					
26379	34.50	36.00	1.50	0.005					
26380	36.00	37.50	1.50	< 0.005					
26381	37.50	39.00	1.00	< 0.005					
26382	39.00	40.00	1.00	< 0.005					
26383	40.00	41.00	1.00	0.212					
26384	41.00	42.00	1.00	0.776					
26385	42.00	43.50	1.50	< 0.005					
26386	43.50	45.00	1.50	< 0.005					
26387	45.00	46.50	1.50	< 0.005					
26388	46.50	48.00	1.50	< 0.005					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				deg to CA in general. Minimal quartz and quartz calcite	26389	48.00	49.50	1.50	0.157					
				microstringers noted, not significant, noted some at 40 deg	26390	stdor221			1.03					
				to CA at 54-55 m. Pyrite content estimated at1% in diss.	26391	49.50	51.00	1.50	0.016					
				form. Unit is not considered altered. Lower contact is	26392	51.00	52.50	1.50	0.085					
				associated with a slip plane oriented at 20 degree to	26393	52.50	54.00	1.50	0.018					
				CA.	26394	54.00	55.50	1.50	0.006					
					26395	55.50	57.00	1.50	0.014					
58.15	58.50	Quartz Vein	Qv	Grey black quartz vein with substantial wall rock	26396	57.00	58.15	1.15	0.949					
				component and a few specks of pyrite. Lower contact	26397	58.15	58.50	0.35	2.54					
				along slip plane as well.at 10 deg to CA. Some minor										
				hematite in vein.										
58.50	64.50	Mafic Volcanic	2HY	Again a fine grained grey black mafic voclanic with some	26398	58.50	59.00	0.50	0.024					
				hyaloclastite. The unit is extremely hard, non magnetic	26399	59.00	60.00	1.00	0.169					
				and has no HCL reaction. A few rare quartz calcite	26400	blank			< 0.005					
				microstringers from 64-64.50 m.; these are oriented at 80	26401	60.00	61.50	1.50	0.113					
				plus degrees to CA. Outside of this no significant veining.	26402	61.50	63.00	1.50	< 0.005					
				Very sparse pyrite, trace at best. No major atlteration noted	26403	63.00	64.50	1.50	0.335					
				Relatively competent unit with some slip planes at 10 deg										
				to CA & fractures at 60 deg to CA in general. Lower										
				contact ground.										
64.50	65.60	Fault Zone	FZ	This fault is a brittle blocky broken zone that is ground up	26404	64.50	65.60	1.10	0.07					
				and it marks contact between volcanics and a vein of quartz										
				The fault is hosted in a bleached mafic. The bleached										
				mafic is not mineralized and is soft. It has a strong HCL										
				reaction and it is non magnetic. Lower contact with vein										
				associated with a slip plane at about 5-7 deg to CA.										
65.60	66.20	Quartz Vein	Qv	This is a white quartz vein which runs sub parallel to the	26405	65.60	66.20	0.60	11.4					
				gabbro unit below. There is some epidote noted in vein										
				but it is not mineralized. Erratic lower contact as vein										
				breaks up into a couple of small stringers.										
66..20	129.00	Gabbro	6G	at 66.80 to 82.75										
				This a greyish unit as well typical of gabbro units found	26406	66.20	67.50	1.30	0.097					
				on the project to date. It is primarily composed of mafic	26407	67.50	69.00	1.50	0.249					
				minerals mainly amphiboles, palgioclase and some quartz.	26408	69.00	70.50	1.50	0.007					
				The unit is medium grained, fairly hard and difficult to	26409	70.50	72.00	1.50	1.49					
				scratch wiith a knife. It does not react to HCl. Fairly	26410	72.00	73.50	1.50	0.329					
				magnetic throughout due to presence of magnetite but	26411	73.50	75.00	1.50	0.037					
				locally weakly magnetic over short intervals. The unit	26412	75.00	76.00	1.00	0.008					
				is medium grained. No signifiant veining of any sort	26413	76.00	77.00	1.00	< 0.005					
				noted and not really altered. Very sparse pyrite, estimate	26414	77.00	78.05	1.05	1.2					
				of trace. Fairly competent unit beyond 69 meters; from	26415	78.05	78.70	0.65	0.042					
				contact to 69 there is a number of slips at 10 deg to CA	26416	78.70	79.50	0.80	0.01					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				and minor small fault at 68.90 to 68.10 with broken blocky	26417	79.50	81.00	1.50	0.013					
				ground oriented at 5 deg to CA. Beyond 69 just a few	26418	81.00	82.50	1.50	0.005					
				fractures at 60 and 30 deg to CA in general and a few	26419	82.50	84.00	1.50	0.014					
				minor slips at 10-15 deg to CA. Note a small lamprophyre	26420	stdor221			1.05					
				dyke from 78.05 to 78.37 with upper contact at 70 deg to										
				CA. This dykes lower contact in against a diatreme with										
				numerous angular fragemensts of various types, the lower										
				contact of the diatreme is at 78.70 and it at 80 deg to CA.										
				This diatreme is simialr to that described in other holes from										
				the Sept 2020 program.										
				at 82.75 to 108.00										
				Continuation of gabbro unit from above. This particular	26421	84.00	85.50	1.50	< 0.005					
				section is mainly grey in color but from 99-102 more of a	26422	85.50	87.00	1.50	0.457					
				light grey and more medium to coarser grained as more	26423	87.00	88.50	1.50	< 0.005					
				plagioclase. Outside of section from 99-102 unit is generally	26424	88.50	90.00	1.50	0.809					
				medium grained. Strongly magnetic throughout and some	26425	90.00	91.50	1.50	< 0.005					
				magnetite present. The unit is hard and extremely difficult to	26426	91.50	93.00	1.50	0.019					
				scratch. No obvious significant alteration except for local	26427	93.00	94.50	1.50	< 0.005					
				epidote patches. No significant veining, a few stringers	26428	94.50	96.00	1.50	0.102					
				of quartz calcite between 86 to 86.5; not significant, some	26429	96.00	97.50	1.50	3.61					
				minor epidote stringers as well noted, again not significant.	26430	blank			0.021					
				The unit does not react to HCL. Slight increase in pyrite from	26431	97.50	99.00	1.50	0.493					
				interval above 0.5 to 1%. A few stringers as well as	26432	99.00	100.50	1.50	0.04					
				disseminated pyrite noted. This is a very competent unit	26433	100.50	102.00	1.50	0.861					
				overall but still a number of tight slips present at 10-15 deg	26434	102.00	103.50	1.50	0.839					
				to CA. and some fractures as well generally at 60 deg to CA.	26435	103.50	105.00	1.50	< 0.005					
					26436	105.00	106.00	1.00	0.016					
				at 108 to 127.00	26437	106.00	107.00	1.00	0.022					
				Continuation of gabbro unit as desribed above. At 108	26438	107.00	108.00	1.00	0.017					
				to 111 the unit slightly finer grained & becomes more & more	26439	108.00	109.00	1.00	< 0.005					
				of a light grey bleached color,appears somewhat albitic	26440	109.00	110.00	1.00	< 0.005					
				at 109-110 m. Initial portion of this section from 109-111 m	26441	110.00	111.00	1.00	< 0.005					
				has a significant amount of quartz stringers and quartz	26442	111.00	112.10	1.10	0.011					
				calcite stringers, stockwork like, these stringer together	26443	112.10	113.00	0.90	0.009					
				are 5-7% of unit. More than one set of microstringers	26444	113.00	114.00	1.00	0.005					
				noted crosscuttig each other. Some leucoxene noted in	26445	114.00	115.50	1.50	0.036					
				asociation with stringers. No significant sulphide noted at	26446	115.50	117.00	1.50	0.124					
				108-111, or in entire interval from 108-127, estimate of trace	26447	117.00	118.00	1.00	0.667					
				overall. Outside of 108-111 some quartz calite microstingers	26448	118.00	119.00	1.00	23.4					
				from 117-118 as well. Section from 117-118 associated with	26449	119.00	120.00	1.00	8.81					
				some bleaching (weak) and some leucoxene. Beyond these	26450	stdor221			1.05					
				two areas little or no veining. Entire section from 108-127 is	26451	120.00	121.50	1.50	0.051					
				strongly magnetic except for areas intensely bleached like	26452	121.50	123.00	1.50	0.006					
				108-109. Unit does not react to HCL except areas like	26453	123.00	124.50	1.50	< 0.005					
				108-109 m. A few epoidote stringers locally in this unit.	26454	124.50	126.00	1.50	0.048					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				Outside of th section from 108 to 111 unit is more medium	26455	126.00	127.50	1.50	0.006					
				gained and grey to light grey in color. Note, some magnetite	26456	127.50	129.00	1.50	0.038					
				present throughout unit outside of 108 to 111. Overall this										
				unit is fairly hard to scratch. Competent unit but small										
				brittle fault from 111.80 to 112.1, blocky section with a										
				number of small slips at about 10 deg to CA. Outside of this										
				fractures are present oriented at 55-60 deg to CA in										
				general and a few slips at 15-20 deg to CA.										
				EOH 129.00										
				Tests:										
				Note: This hole extremely magnetic and erroneous test										
				results thus azimuth of down hole data to be ingnored. Dip										
				angle seems corrrect.										
				54 m depth										
				Az: 25.7 degrees										
				Corrected Az: 14.2 degrees										
				Dip: -65.4 degrees										
				99 m depth										
				Az: 27.4 degrees										
				Corrected Az: 15.9 degrees										
				Diip: -65.1degrees										
				129 m depth										
				Az: 23.3 degrees										
				Corrected Az: 11.8 degrees										
				Dip: -64.90 degrees										

PELANGIO EXPLORATION

Prospect: Grenfell Shaft Area
DDH: JS2014 **Azimuth/Dip: 20/-67**
Core Size: NQ **Tests: see last page**
CLAIM: L512579 **EOH:150 m.**

Grid Location: N/A See UTM Coordinates
UTM:560335E 5336167N Nad 83 Zone 17
Date Drilled: Sept.20 to Sept. 21 2020
Date Logged: Oct.11 to Oct 13 2020

Drill Company:
NPLH Drilling
Logged by:
K. Filo

Core Storage: Pelangio Field Office Connaught Ontario.

From	*To*	*Rock Type*	*Code*	*Description*	*Sample#*	*From*	*To*	*Meters*	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
0.00	22.25	Casing	CAS	Note, casing left in hole.										
22.25	29.10	Diorite	6D	Medium grained unit that is greyish salmon pink in color	26233	22.25	23.00	0.75	0.035					
				(weak hematitic alteration), with the exception of the last	26234	23.00	24.00	1.00	0.013					
				meter or so where unit is more grey in color. The unit has	26235	24.00	25.50	1.50	0.026					
				a poorly developed porphyritic looking texture. Unit is mainly	26236	25.50	27.00	1.50	0.043					
				made of quartz and plagioclase and minor mafic minerals.	26237	27.00	28.50	1.50	0.014					
				The unit Is fairly competent with a few minor slips at about	26238	28.50	29.10	0.60	0.007					
				20 deg to CA. and a few fractures at 60 to 70 deg to CA.										
				Small brittle fault with blocky broken rock from 26.9-27.5,										
				contacts sub-parallel to CA at about 5 deg to CA. Moderate										
				response to magnet. Moderate hardness. Has strong HCL										
				reaction. Tiny calcite blebs react to HCL, these mimic a										
				phenocryst and give the unit a poorly developed porphyritic										
				appearance. This unit noted in holes JS2001 to JS2006 and										
				interprerted to be the historical No6 Vein Porphyry										
				from historical maps. Significant gold mineralization noted										
				in hanging wall of this unit in previous Pelangio holes										
				JS2004 and JS2005. The unit has some very fine pyrite										
				an estimate of 1/2 % overall. Some minor quartz calcite										
				microstringers observed, not signifiant. Lower contact is										
				sharp at 85 deg to CA.										
29.10	30.25	Mafic Volcanic	2U	This is very fine grined apahanitic unit which also has a	26239	29.10	30.00	0.90	0.01					
				pinkish grey color (possible hematitic alteration). The unit	26240	stdor221			1.04					
				is of moderate hardness, apperance of unit suggests										
				weak silicification. No response to magnet and no HCL										
				response except for a few quartz calcite microstrigers.										
				Minor pyrite noted trace to 1/2% overall. Lower contact										
				with major fault zone 3 deg to CA.										
30.25	36.50	Major Fault Zone	FZ	This is a typical fault for the Grenfell Project, a brittle,	26241	30.00	31.50	1.50	< 0.005					
				blocky broken fault with substantial ground up core. The	26242	31.50	33.00	1.50	< 0.005					
				unit which hosts the fault is the same mafic volcanic unit	26243	33.00	34.50	1.50	0.006					
				which is described immediately above, with no signficant	26244	34.50	36.00	1.50	< 0.005					
				change. The lower contact of the fault is marked by a	26245	36.00	36.50	0.50	0.006					
				distinct shear plane at 3 deg to CA.										

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
36.50	39.10	Mafic Dyke	6U	This a grey black fine to medium grained dyke that is badly	26246	36.50	37.60	1.10	0.006					
				broken up and blocky for about 1.5 meters beyond fault	26247	37.60	39.10	1.50	< 0.005					
				contact. The unit is comprised mainly of mafic minerals.										
				A few tiny fragments noted in unit, pyrite present in										
				disseminated form 0.5-1%. Unit is non magnetic and does										
				not react to HCl. A small vein of quartz calcite noted from										
				36.65-36.75 but this is a basically the only veining in unit.										
				Unit is of moderate hardness. Lower contact associated										
				with slip plane at 4-5 deg to CA.										
39.10	48.20	Mafic Volcanic	2U,amg	This is a fine grained tan colored amydaloidal mafic volcanic	26248	39.10	40.00	0.90	0.02					
		(Amygdaloidal)		The unit is fairly hard and possible weak to moderately	26249	40.00	41.00	1.00	< 0.005					
				silicified. In many instances amygdaloids infilled with pyrite	26250	blank			< 0.005					
				and in some instances a dark black mafic mineral that is	26251	41.00	42.00	1.00	0.021					
				chlorite altered. Unit has pyrite present in disseminated	26252	42.00	43.00	1.00	0.031					
				form, stringers and within tha amygdaloids; pyrite content	26253	43.00	44.00	1.00	0.015					
				of unit estimated at 5% plus overall, locally over short	26254	44.00	45.00	1.00	0.005					
				intrvals 5-7%. Unit is non magnetic and does not react to	26255	45.00	46.00	1.00	0.006					
				HCL. A few minor quartz caclite stringers but not significant.	26256	46.00	47.00	1.00	0.021					
				This is a fairly competent unit, some fractures noted at	26257	47.00	48.20	1.20	< 0.005					
				70 and 50 deg to CA in general. A few slips noted at 15 deg										
				to CA generally.Gradational contact with unit below.										
48.20	60.00	Mafic Volcanic	2U	This unit is a fine grained mafic volcanic bascially grey in	26258	48.20	49.00	0.80	0.006					
				color with a few local tan colored patches, it has a similar	26259	49.00	50.00	1.00	< 0.005					
				appearance to unit above as it looks moderately silicified	26260	50.00	51.00	1.00	< 0.005					
				but has no amygdaloids. The unit is very hard to scratch.	26261	51.00	52.00	1.00	< 0.005					
				The unit has no HCL reaction, it is non magnetic and has	26262	52.00	53.00	1.00	0.013					
				only a few insignificant microstringers of quartz calcite. The	26263	53.00	54.00	1.00	0.046					
				unit extremely well mineralized with pyrite (7-10%), many	26264	54.00	55.00	1.00	< 0.005					
				pyrite stringers as well as disseminated pyrite are present.	26265	55.00	56.00	1.00	0.005					
				Very competent unit with a few fractures generally at 30	26266	56.00	57.00	1.00	0.029					
				and 60 deg to CA in general and rare slip at 15 deg to CA	26267	57.00	58.00	1.00	0.062					
				in general. Lower contact associated with minor fault	26268	58.00	59.00	1.00	< 0.005					
				at 5 deg to CA.	26269	59.00	60.00	1.00	0.068					
60.00	73.10	Mafic Volanic	2MS	This is a massive mafic volcanic unit that is dark grey to	26270	stdor221			1.07					
				black in color. It also appears silicified and is extremely hard	26271	60.00	61.00	1.00	0.009					
				to scrathed. The unit is is extremely fined grained to	26272	61.00	62.00	1.00	< 0.005					
				aphanitic. Again unit is non mangetic and has no HCL	26273	62.00	63.00	1.00	< 0.005					
				reaction. This unit is mineralized with pyrite but it has	26274	63.00	64.00	1.00	0.009					
				sustantially less mineralization than previous two units	26275	64.00	65.00	1.00	0.007					
				above. Pyrite content in this unit estimated at 2 to 2.5% and	26276	65.00	66.00	1.00	< 0.005					
				mainly disseminated pyrite. No significant veining of any	26277	66.00	67.00	1.00	< 0.005					
				sort noted with exception of small vein 2 cm or	26278	67.00	68.00	1.00	< 0.005					
				associated with small fault at 61.60 to 62.00. Aside from	26279	68.00	69.00	1.00	< 0.005					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				small fault comepetent unit with occasional slip generally	26280	blank			0.005					
				10-15 deg to CA and some fractures generally at 60 deg to	26281	69.00	70.00	1.00	0.005					
				CA. Gradational contact with unit below.	26282	70.00	71.00	1.00	< 0.005					
73.10	83.90	Mafic Volcanic	2U	This unit is similar to unit described from 48.20-60 above.	26283	71.00	72.00	1.00	0.008					
				It is somewhat unusual looking. Very locally such as at	26284	72.00	73.10	1.10	< 0.005					
				78.25 it has a few poorly developed amygdaloids	26285	73.10	74.00	0.90	< 0.005					
				which appear to be infilled with qurartz and sometimes	26286	74.00	75.00	1.00	< 0.005					
				calcite. Patchy mottled texture througout. In general a	26287	75.00	76.00	1.00	0.009					
				greenish grey unit. The unit fine grained and moderate to	26288	76.00	77.00	1.00	< 0.005					
				very hard, possible silicification of unit from appareance	26289	77.00	78.00	1.00	< 0.005					
				and hardness. Unit is non magnetic and localized HCL	26290	78.00	79.00	1.00	0.005					
				reaction. Minor quartz calcite stringers, particularily from	26291	79.00	80.00	1.00	0.007					
				75.45 -75.75 and 82-83 m. Stringers are at about 85 deg to	26292	80.00	81.00	1.00	< 0.005					
				CA. Trace pyrite overall rare clot of pyrite noted at 75.45 to	26293	81.00	82.00	1.00	0.229					
				75.75. Overall a competent interval with fractures generally	26294	82.00	83.00	1.00	< 0.005					
				70 deg to CA and rare minor slip at 10 deg to CA in general.	26295	83.00	83.90	0.90	< 0.005					
				Small blocky fault noted from 74.80 to 75.00. Lower										
				contact with dyke at 30 deg to CA.										
83.90	84.95	Mafic Dyke (Diatreme)	6U	This unit is mainly compised of subangular fragments of	26296	83.90	84.95	1.05	< 0.005					
				various compositions including quartz feldspar porphyry.										
				Very little matrix material noted, where present mainly										
				black mafic minrarals. This unit is distinctly similar to the										
				dyke described in JS2011. The dyke is hard, non magntic										
				and has no HCL reaction. No significant veining or										
				mineralization noted. Lower contact is sharp and at 70 deg										
				to CA.										
84.95	90.20	Mafic Volcanic	2U	This is a fine grained dark grey to black colored mafic	26297	84.95	86.00	0.95	< 0.005					
				volcanic. It has a number of tiny white specks (quartz?)	26298	86.00	87.00	1.00	< 0.005					
				in patches througout it giving is a psudo-porphyritic	26299	87.00	88.00	1.00	0.005					
				appearance albeit poorly developed. Again the unit is	26300	stdor221			1.07					
				very hard, non magntic and has no HCL reaction. Very rare	26301	88.00	89.00	1.00	0.005					
				stringer of quartz noted. Estimate of trace to 0.5% pyrite.	26302	89.00	90.20	1.20	0.684					
				Fairly competent unit, a small blocky broken fault noted										
				from 88.80 to 89.00. Again a series of small slip planes										
				also present at 10-15 deg to CA. and a fracture set at										
				60-70 deg to Ca. Gradational contact to unit below.										
90.20	94.25	Mafic Volcanic	2U	A fine grained light greyish green colored unit that very hard	26303	90.20	91.00	0.80	0.601					
				non magnetic and has no HCL reaction. At 90.20 to 91m	26304	91.00	92.00	1.00	0.092					
				a number of quartz stringers/ veinlets that run sub parallel	26305	92.00	93.00	1.00	< 0.005					
				to CA. Outside of this area a few minor quartz calcite	26306	93.00	94.00	1.00	0.014					
				stringers at 80-85 deg to CA. From 93 to fault contact below	26307	94.00	95.00	1.00	0.018					
				the unit becomes intensely altered, bleached with patchy	26308	95.00	96.00	1.00	0.104					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				sericite??. Distinct increase in veining in last 1.25 meters										
				perhaps 4-5% quartz calcite at various orientations. Trace										
				of pyrite at best. Very competent unit but becomes slightly										
				blocky in last 0.5 m prior to fault. Fault contact a series										
				of slip planes at 10 deg to CA associated with ground										
				rubble.										
94.25	98.00	Fault Zone	FZ	This is a major fault zone typical of faults on this property;	26309	96.00	97.00	1.00	3.6					
		(Major)		a brittle blocky fault basically with most of the core	26310	blank			0.005					
				ground up. The host rock of the fault is the mafic volcanic	26311	97.00	98.00	1.00	1.02					
				unit described immediately above. Lower contact is ground.										
98.00	101.75	Mafic Volcanic	2U	Fine grained to apahnitic light grey colored mafic volcanic.	26312	98.00	99.00	1.00	0.022					
				Extremely hard, and appears to have been silcia altered	26313	99.00	100.00	1.00	0.005					
				visually. The unit is non magnetic and has no HCL reaction	26314	100.00	101.00	1.00	0.006					
				A few microstingers and veinlets of quartz calcite at 80	26315	101.00	101.75	0.75	0.074					
				deg to CA. These make up less than 2% of unit. Traces of										
				pyrite noted, poorly mineralized. Overall a competent unit										
				with a number of fractures at 80 deg to CA. and a few slips										
				at 5-10 deg to CA; slighly more blocky unit in first meter or										
				so below the fault. Lower contact at 35 deg to CA.										
101.75	111.70	Mafic Intrusive	6U	This unit again grey to dark grey in color, it has a more	26316	101.75	103.00	1.25	0.091					
				fine to medium grained and a case could be made for this	26317	103.00	104.00	1.00	0.251					
				being a coarser phase of the volcanic package. The unit	26318	104.00	105.00	1.00	< 0.005					
				has a series of tiny peppered flecks of quartz throughout it.	26319	105.00	106.50	1.50	0.15					
				Some fine pyrite noted but generally less than 1%. The unit	26320	106.50	108.00	1.50	0.049					
				does not appear altered and it is non magnetic and has no	26321	108.00	109.50	1.50	0.12					
				HCL reaction. Unit is of moderate hardness. A few rare	26322	109.50	111.00	1.50	0.032					
				quartz stringers, but not significant. Very competent unit	26323	111.00	111.70	0.70	0.632					
				with a few fractures generally at 75-80 deg to CA.and										
				rare slip plane at 15 deg to CA. lower contact at 70 deg to										
				CA and slightly finer grained in last meter of unit suggesting										
				intrusive nature of unit. This unit 80% mafic minerals and										
				some quartz, palgioclase??										
111.70	127.10	Mafic Volcanic	2U/2HY	at 111.70 to 127.10										
				Again a fine grained dark grey massive mafic volcanic, with	26324	111.70	113.00	1.30	0.139					
				occassional mottled appareance. Unit is of moderate	26325	113.00	114.00	1.00	0.573					
				hardness and does not appear altered. Unit has trace of	26326	114.00	115.50	1.50	0.232					
				pyrite and a few tiny stringers of quartz locally, not	26327	115.50	117.00	1.50	0.018					
				significant. Unit is non magnetic and has no HCL reaction.	26328	117.00	118.50	1.50	0.046					
				Extremely competent looking unit, some fractures at 70-75	26329	118.50	120.00	1.50	0.235					
				deg to CA and a rare slip plane at 3-5 deg to CA.	26330	stdor221			1.07					
				Unit has local patches of hyaloclastite between 120-123.50	26331	120.00	120.55	0.55	0.006					
				that is very distinctive. Beyond 120 more of a dark grey	26332	120.55	120.87	0.32	0.596					

From	To	Rock Type	Code	Description	Sample#	From	To	Meters	Au g/t	Au ppb	Pt ppb	Pt g/t	Pd ppb	Pd g/t
				to black color. Smalll white quartz vein noted at 120.55 to	26333	120.87	122.00	1.13	0.019					
				120.87, vein contacts at about 30 deg to CA. At 121-122	26334	122.00	123.00	1.00	0.278					
				there is a number of small blocky broken faults associated	26335	123.00	124.50	1.50	0.063					
				with slips at about 10 deg to CA. Lower contact at 60	26336	124.50	126.00	1.50	0.31					
				deg to CA.										
					26337	126.00	127.10	1.10	4.02					
127.10	150.00	Gabbro		at 127.10-144.00	26338	127.10	128.00	0.90	0.514					
				This is a medium grained that is generally grey colored.	26339	128.00	129.00	1.00	2.83					
				First couple of meters slightly finer grained, chill margin.	26340	blank			0.006						
				The unit is comprised of ferro mag minerals mainly	26341	129.00	130.50	1.50	0.021					
				amphiboles, plagioclase and some quratz typical of gabbro	26342	130.50	132.00	1.50	1.02					
				seen to date on this project. The unit is very hard and	26343	132.00	133.50	1.50	0.307					
				difficult to scratch with a knife. Basically non magnetic to	26344	133.50	135.00	1.50	2.24					
				134 meters and then some magnetite present locally and	26345	135.00	136.50	1.50	0.021					
				unit becomes sporadically magnetic. Minor pyrite noted in	26346	136.50	138.00	1.50	0.156					
				unit to about 141 meters, estimate of 1% maximum. No	26347	138.00	139.00	1.00	0.232					
				significant veining except at 141-143 where there are	26348	139.00	140.00	1.00	0.028					
				numerous quartz stringers and veinlets generally at 60	26349	140.00	141.00	1.00	0.134					
				deg to the CA. This section from 141-143 is also bleached	26350	141.00	142.00	1.00	0.086					
				and contain numerous leuxocenes. This 141-143 m. section	26351	142.00	143.08	1.08	0.09					
				is believed to be the No.1 vein interecpt. The No.1 vein	26352	143.08	144.00	0.92	0.131					
				intercept area also contains 2-3% pyrite in clots and diss.	26353	144.00	145.50	1.50	0.151					
				form. Outside of bleaching and leucoxene in No.1 vein area	26354	145.50	147.00	1.50	0.875					
				and locally some minor patchy epidote the unit is basically	26355	147.00	148.50	1.50	3.46					
				unaltered. This is a competent unit overall, minor fault zone	26356	148.50	150.00	1.50	0.956					
				noted from 138-139 with blocky broken core. Upper contact										
				at 10 deg to CA with some minor gouge on slip plane. Note										
				some coarser phenocrysts of plagioclase noted from 130										
				to 132.5 giving unit a psudo porphyritic look.										
				at 144 to 150										
				Continuation of gabbro unit as described above. This										
				particular interval still medium gained, and very hard, difficult										
				to scratch. Unit has no HCL reaction and it is magnetic to										
				about 149 due to presence of magnetite. Unit is unaltered										
				with the exception of some loalized patchy epidote. A little										
				more disseminated pyrite present more in the order of 1-2%.										
				Extremely competent unit with no major structure or faults										
				and a few fractures at 70 deg to CA. (minimal). Rare										
				stringer of quartz and epidote noted, not significant.										
				EOH 150 m.										
				Tests										
				51 m: Az 30.4 deg Corrected Az: 18.90 deg & -67.1 deg Dip										
				102m Az 31.5 deg Corrected Az: 20 deg and -67.3 deg Dip										

Category	Date	Invoice #	Payee	Description		Amount	
Geologist	Feb 1/20	199939	Filo Exploration	Geological Consulting		4000.00	
Geologist	Feb 14/20	199941	Filo Exploration	Geo Consulting/core logging		4400.00	
Geologist	May 12/20	199944	Filo Exploration	Geo Consulting/interpretation		1200.00	
Geologist	May 26/20	199946	Filo Exploration	Geo Consulting/interpretation		400.00	
Geologist	Aug31/20	199949	Filo Exploration	Geo Consulting/core logging		1400.00	
Geologist	Sept 30/20	921701	Filo Exploration	Geo consulting/ core logging/field		6200.00	
Geologist	Oct.27/20	921702	Filo Exploration	Geo Consulting/core logging/supervision		6600.00	
Geologist	Jan. 6/21	921704	Filo Exploration	Final Drill Report		4000.00	
					Subtotal	**28200.00**	**28200**
Technician	Feb 5/20	41124	Bob Bailey	Core handling job to timmins		1000.00	
Technician	Feb 14/20	DBINV2002	Doug Bryant	Core Cutting		3750.00	
Technician	Oct 28/20	N/A payroll	Scott Woolhead	Core Cutting		1095.00	
Technician	Oct 20/20	N/A payroll	Shea Simon	Core Cutting		2100.00	
Technician	Oct 20/20	PE2004	Doug Bryant	Core Shack Set Up		600.00	
Technician	2020-06-01	inv1914	Exsics	Access route evaluation		1800.00	
Technician	2020-09-28	inv1931	Exsics	Core handling job to timmins		1850.00	
					Subtotal	**12195.00**	**12195**
Transportation	Feb 1/20	199940	Filo Exploration	Filoex jeep mileage		1543.00	
Transportation	Feb 1/20	199940	Filo Exploration	Ski doo rental		500.00	
Transportation	Feb 1/20	199940	Filo Exploration	Large Truck for core move		102.32	
Transportation	Feb 14/20	199941	Filo Exploration	Filoex jeep mileage		459.80	
Transportation	Feb 14/20	199941	Filo Exploration	Large Truck for core move		199.64	
Transportation	Aug 31/20	199949	Filo Exploration	Filoex jeep mileage		206.25	
Transportation	Sept 30/20	921701	Filo Exploration	Filoex jeep mileage		1617.00	
Transportation	Sept 30/20	921701	Filo Exploration	Large Truck for core move		256.73	
Transportation	Oct.27/20	921702	Filo Exploration	Filoex jeep mileage		1241.35	
					Subtotal	**6126.09**	**6126.09**
Helicopter	Jan 29/20	inv 105221	Expedition	Drill Move Invoice		7353.80	
Helicopter	Feb5/20	inv105226	Expedition	Drill Move Invoice		9379.40	
					Subtotal	**16733.20**	**16733.2**

Assays	Feb 5/20	A20-01414	Activation Laboratories Ltd.	Grenfell Assay Cost		5642.60	
Assays	Feb 11/20	A20-01649	Activation Laboratories Ltd.	Grenfell Assay Cost		6875.00	
Assays	Feb 13/20	A20-01793	Activation Laboratories Ltd.	Grenfell Assay Cost		3812.50	
Assays	Feb 18/20	A20-01900	Activation Laboratories Ltd.	Grenfell Assay Cost		2531.25	
Assays	May 12/20	A20-199943	Filo Exploration	Payment final balance of assays		38.24	
Assays	2020-10-01	A20-12005	Activation Laboratories Ltd.	Grenfell Assay Cost		2512.50	
Assays	2020-11-03	A20-12933	Activation Laboratories Ltd.	Grenfell Assay Cost		2405.65	
Assays	2020-11-13	A20-12936	Activation Laboratories Ltd.	Grenfell Assay Cost		1585.50	
Assays	2020-12-04	A20-13424	Activation Laboratories Ltd.	Grenfell Assay Cost		1585.50	
Assays	2020-12-15	A20-13347	Activation Laboratories Ltd.	Grenfell Assay Cost		3883.80	
Assays	2020-12-21	A20-13269	Activation Laboratories Ltd.	Grenfell Assay Cost		2241.50	
					Subtotal	**33114.04**	**33114.04**
Maps	Feb 14/20	199941	Filo Exploration	Field Maps		36.98	
Maps	May 12/20	199943	Filo Exploration	Maps for geo interpretation		1548.00	
Maps	May 26/20	199946	Filo Exploration	Access and geo interp maps		540.00	
Maps	Aug31/20	199949	Filo Exploration	Maps for field geology work		324.00	
Maps	Jan. 6/21	921704	Filo Exploration	Map and section work for final report		1258.00	
					Subtotal	**3706.98**	**3706.98**
Rental	Feb 14/20	dbinv2001	Doug Bryant	Core Shack Rental		1220.00	
					Subtotal	**1220.00**	**1220**
Fuel	Feb 1/20	199940	Filo Exploration	Fuel for rental truck		89.81	
Fuel	Feb 5/20	41124	Bob Bailey	Fuel for rental truck		52.66	
Fuel	Sept 30/20	921701	Filo Exploration	Fuel for rental truck		13.86	
Fuel	Sept 30/20	921701	Filo Exploration	Fuel for rental truck		44.09	
					Subtotal	**200.42**	**200.42**
Drilling	Mar.1/20	6253	NPLH Drilling	Core Drilling		55352.18	
Drilling	Oct 30/20	6638	NPLH Drilling	Core Drilling		66668.11	
					Subtotal	**122020.29**	**122020.29**

Supplies	Feb 1/20	199940	Filo Exploration	Bus Express charge		9.37	
Supplies	Feb 1/20	199940	Filo Exploration	Assay standards		303.47	
Supplies	Feb14/20	199941	Filo Exploration	Sampling Supplies/bags etc		213.98	
Supplies	May 12/20	199943	Filo Exploration	Copy of Map Material		28.23	
Supplies	Feb 5/20	41124	Bob Bailey	Meal		25.61	
Supplies	2020-02-09	199950	Filo Exploration	Extra core storage rack material (lumber) supply		312.32	
Supplies	2020-06-09	199950	Filo Exploration	Extra core storage rack material (nails) supply		25.36	
Supplies	2020-04-09	199950	Filo Exploration	Fuel for rental truck to move supplies		67.75	
Supplies	2020-04-09	199950	Filo Exploration	assay standards for core assay check		161.46	
Supplies	14/9/2020	199950	Filo Exploration	safety and ventilation hood for core saw work		1184.56	
Supplies	18/9/2020	199950	Filo Exploration	Core shack logging and cutting supplies		206.33	
Supplies	18/9/2020	199950	Filo Exploration	safety supply for core saw operator		156.73	
Supplies	18/9/2020	199950	Filo Exploration	tags for core box (labels)		87.5	
Supplies	18/9/2020	199950	Filo Exploration	sample bags for core		293.57	
Supplies	18/9/2020	199950	Filo Exploration	blank standards for core assay check		21.98	
Supplies	Sept 30/20	921701	Filo Exploration	new core storage rack & core saw drain		392.84	
Supplies	Sept 30/20	921701	Filo Exploration	dust suppression container for core saw		69.98	
Supplies	Sept 30/20	921701	Filo Exploration	water pump for core saw		18.99	
Supplies	Sept 30/20	921701	Filo Exploration	dust suppression & core shack supplies		413.88	
Supplies	Oct.27/20	921702	Filo Exploration	diamond saw blade for core cutting		330.00	
Supplies	Oct.27/20	921702	Filo Exploration	water tank for core cutting		350.00	
Supplies	Oct.27/20	921702	Filo Exploration	dust masks for core cutting safety		96.54	
Supplies	Oct.27/20	921702	Filo Exploration	garbage can for core shack		12.74	
Supplies	Oct.27/20	921702	Filo Exploration	supplies for core saw drain		119.78	
Supplies	Oct.27/20	921702	Filo Exploration	bucket for core saw sludge		6.94	
Supplies	Oct.27/20	921702	Filo Exploration	Ventilation hose for core saw		37.68	
					Subtotal	**4947.59**	**4947.59**
						Grand Total	**228463.61**