# SHANGHAI PROJECT Technical Report Mayo Mining District, Yukon

### **Location:**

- NTS Map Area: 105M/13
- UTM Zone 8 469992 m E 7092297 m N
- Lat/Long: 63° 57.35' N 135° 36.76' W
- 42 km NNE of Mayo, Yukon

Prepared for:

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Effective Date: July 15, 2022 Amended Report Date August 25, 2022

#### DATE AND SIGNATURE PAGE

The effective date of this NI 43-101 Technical report, entitled "Shanghai Project Technical Report, Mayo Mining District, Yukon" is July 15, 2022.

(Signed & Sealed) R. Allan Doherty

R. Allan Doherty, P. Geo. Date: July 15, 2022

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#### **1.0 SUMMARY**

The Shanghai Property is in the Yukon Territory, 38 kilometers north of Mayo, Yukon (Figure 1), on the north side of the McQuesten River. The old Keno Hill mine site town of Elsa is clearly visible 12 kilometers to the southeast across the McQuesten River valley. The property includes 150 un-surveyed continuous claims covering an area of approximately 2,640 hectares, staked by Shawn Ryan, of Dawson City: staking 100 claims in 2004 and adding 25 claims in both 2007 and 2021.

There is no record of lode-gold production from the general property area, however it has seen intermittent staking and exploration activity over the past century. Initial activity from 1925 to 1966 focused on Keno Hill type high grade Silver-lead-zinc veins and there is historical drilling and an adit 420 m along a northwest trending steeply southwest dipping vein fault known as the Shanghai vein. With the recognition of the significance of the Tombstone Suite 90-92 Ma event for gold mineralization across the Yukon and Alaska in the late 1980's the areas closer to the Keno Silver District were reassessed for Tombstone suite mineralization.

The Shanghai property straddles the Robert Service Thrust fault, a regionally extensive fault that thrusts Lower Paleozoic Hyland Group rocks over Mississippian Keno Hill Quartzites containing concordant sills of Triassic meta-gabbro. The lower and upper thrust plates are folded along an east west trending anticline known as the McQuesten Anticline. Several small Tombstone Suite intrusions are localized along the trace of the Robert Service Thrust fault.

The south limb of the McQuesten anticline hosts the Keno Hill Ag-Pb-Zn polymetallic vein deposits of the Keno Silver district and Banyan Gold's AurMac project located 7 km south of the Shanghai property. AurMac is interpreted as a distal Tombstone suite mineralization hosted in reactive calcareous metasediments and host a distal type of Tombstone Suite related gold mineralization.

Results from the soil sampling programs (2004 to 2021) indicate that there is anomalous gold in soil values associated with the small Tombstone Suite plugs localized along the trace of the Robert Service Thrust fault. The anomalous gold samples are commonly accompanied by anomalous arsenic and antimony. Over areas of known polymetallic Silver-lead-zinc veins anomalous Ag, Pb and Zn in soils is also present.

A \$150,000 exploration program involving, extension of the existing grid and additional geological mapping and prospecting and RAB drilling is recommended and warranted on the Shanghai Project. Additional ground magnetometer surveys should be completed to extend coverage along the southern grid over the Robert Service.

#### 2. INTRODUCTION AND TERMS OF REFERENCE

This report was prepared at the request of Mr. Jon Ward of Targa Exploration Corp. Its purpose is to assess the property's economic potential, summarize the 2021 and previous exploration efforts and to provide an update on the most recent property work and provide a recommended work program and budget. This report also serves to satisfy the standards of disclosure for mineral projects under National Instrument 43-101 through a description of current and previous exploration work carried out on the claims.

On August 30, 2004, R. Allan Doherty, P. Geo. visited a few showings on the property accompanied by Julianne Madsen MSc, geologist who supervised the exploration work under the direction of R. Allan Doherty, P. Geo during the 2004 exploration work.

The author completed a property visit on May 5, 2022. The property was still snow covered above 600 m, and the upper trenches on the Shanghai vein were snow covered but the lower 2240 adit dump was mostly snow free. Three samples were collected of dump material at that site. The samples were of foliated quartzites and phyllite with quartz veins and minor sulphides of galena on slickensides and pyrite in quartz veinlets.

#### **3. RELIANCE ON OTHER EXPERTS**

The author states that he is a qualified person for this report, as identified in the "Certificate of Qualifications, as included in this report.

For Section 4.0 the author has relied on Targa Exploration Corp. without independent investigation, for information with respect to underlying option agreement and terms between the Company and Shawn Ryan. In reviewing, referencing, and reporting on property data, the author has not, to his knowledge, relied on the opinion or statement of other experts who are not qualified persons.

The author has made no attempt to verify the legal status and ownership of the Shanghai property claims, nor is he qualified to do so. The information regarding property title and ownership was obtained from the Yukon Government claim titles web site. The author saw no evidence to suggest that it is not correct.

#### 4. PROPERTY DESCRIPTION AND LOCATION

The Shanghai property is an elongate, northeast-trending claim group of 150 claims, roughly 9 kilometers long by an average 2.3 kilometers wide, covering an area of approximately 2,600 hectares, with its southern boundary along the slope break of the McQuesten River valley. It is in central Yukon Territory, 38 kilometers north of Mayo, Yukon (Figure 1). The property consists of 150 un-surveyed continuous claims staked by Shaw Ryan of Dawson City, Yukon, who is the current registered claim owner. The property is currently operated, under option to Targa Exploration Corp. Figure 1 shows the general location of the property.



Figure 4-1 General Location Map

#### **4.1 TENURE HISTORY**

The first claims were staked on July 1926 by A. Chambers. The main Keno style Ag-Pb-Zn veins and structures at Shanghai vein and Ur showing were located and staked or restaked culminating in underground drifting on the Shanghai vein structure (Yukon Minfile 105M028) in the 1960s. The property area was dormant between 1966 to 2003 and was restaked again in 2004 by Shawn Ryan. The claims are centred at 63.95° N Latitude and 135.63° W Longitude (NAD 83 Zone 8 469383 m E 7092003 m N) all on NTS Map sheet 105M13.

The CA 1-8, LS 1-8, SF 1-6, RA 1-8 and SR 1-8 were staked in January 2004 and the Shanghai 1-60 were added on February 23, 2004 and the Shanghai 66-86 in 2007 and Shanghai 87-112 on November 2021.

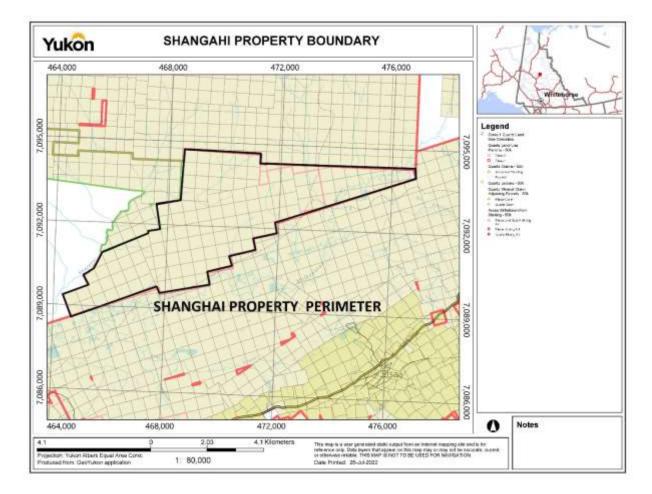


Figure 4.2 Location of the Shanghai Property Mineral Tenures, Yukon Territory.

#### **4.2 MINERAL TENURE**

The Shanghai Project includes 150 Quartz claims covering 2,600 hectares in a contiguous block measuring approximately 9 km long in a northeast direction by 2.3 km average width. Table I shows the expiry dates and grant numbers of the 150 claims of the Shanghai property. All claims are valid until January 27, 2027, except the Shanghai 87-102 which have an expiry date of November 19, 2026.

In accordance with the Yukon Quartz Mining Act, yearly extensions to the expiry dates of quartz claims are dependent upon conducting \$100 of work per claim or paying the equivalent cash in lieu of work. Work must be filed in the year the work was completed. Excess work can be used to extend expiry dates up to maximum of four years. Assessment costs can be applied to adjoining claims through filing grouping certificates. Filing a statement of work and costs and submission of an assessment report to the Mayo Mining Recorder verifying completion of the work, are also required no later than six months after the anniversary date of the claim. In accordance with the Yukon Quartz Mining Act, yearly extensions to the expiry dates of quartz claims are dependent upon conducting \$100 of work per claim or paying the equivalent cash in lieu of work. Work must be filed in the year the work was completed. Excess work can be used to extend expiry dates up to maximum of four years. Assessment costs can be applied to adjoining claims through filing grouping certificates. Filing a statement of the equivalent cash in lieu of work. Work must be filed in the year the work was completed. Excess work can be used to extend expiry dates up to maximum of four years. Assessment costs can be applied to adjoining claims through filing grouping certificates. Filing a statement of work and costs and submission of an assessment report to the Mayo Mining Recorder verifying completion of the work, are also required no later than six months after the anniversary date of the claim.

The claims are located within the traditional territory of the Nacho Nyak Dun First nation, which has settled its land claim, and is a self-governing first nation.

The property claims are Grouped under Grouping Number HM03377 which allows work to be applied across the entire grouping. The Grouping number can be used to search for all claims in the Grouping number at: https://apps.gov.yk.ca/ymcs/f?p=116:1

The claims are located within the traditional territory of the Na-Cho Nyak Dun First nation, which has settled its land claim, and is a self-governing first nation.

Grant Numbers	Claim Name	Claim #'s	Claim owner	Staking date	Expiry date	NTS Map
YC11604 - YC11611	SR	1 - 8	Shawn Ryan - 100%	2004-01-17	2027-01-27	105M13
YC11612 - YC11619	LS	1 - 8	Shawn Ryan - 100%	2004-01-17	2027-01-27	105M13
YC11620 - YC11627	CA	1 - 8	Shawn Ryan - 100%	2004-01-17	2027-01-27	105M13
YC11628 - YC11635	RA	1 - 8	Shawn Ryan - 100%	2004-01-17	2027-01-27	105M13
YC11636 - YC11641	SF	1 - 6	Shawn Ryan - 100%	2004-01-17	2027-01-27	105M13
YC11642 - YC11701	Shanghai	1 - 60	Shawn Ryan - 100%	2004-02-23	2027-01-27	105M13
YC57330 - YC57334	Shanghai	61 - 65	Shawn Ryan - 100%	2004-02-23	2027-01-27	105M13
YC57561 - YC57581	Shanghai	66 - 86	Shawn Ryan - 100%	2007-10-19	2027-01-27	105M13
YF75675 - F75700	Shanghai	87-112	Shawn Ryan - 100%	2021-10-07	2026-10-19	105M13

#### TABLE 4.1 SHANGHAI PROPERTY CLAIM STATUS

### **4.3 OPTION AGREEMENT**

Targa Exploration Corp., Optioned the Shanghai Property from Shawn Ryan and Wildwood Resources, under an Agreement signed on October 6, 2021.

To maintain this agreement in good standing the and exercise the Option the Optionee must:

a.	Pay to	Wildwood an	aggregate	of \$750,000,	as follows:
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DATE	AMOUNT
10 days after execution of the agreement	\$50,000
on or before October 6, 2022	\$100,000
on or before October 6, 2023	\$100,000
on or before October 6, 2024	\$100,000
on or before October 6, 2025	\$150,000
on or before October 6, 2026	\$250,000

b. Incur expenditures in the aggregate amount of not less than \$2,850,000, as follows;

DATE	AMOUNT
on or before November 15, 2021	\$75,000 √
on or before November 15, 2022	\$150,000
on or before November 15, 2023	\$375,000

on or before November 15, 2024	\$500,000
on or before November 15, 2025	\$750,000
on or before November 15, 2026	\$1,000,000

c. Issue and deliver to Ryan an aggregate of 4,000,000 shares as follows:

Date	Number of Shares
within 10 business days after this agreement	500,000
on or before the first anniversary of the agreement	500,000
on or before the second anniversary of the agreement	600,000
on or before the third anniversary of the agreement	650,000
on or before the fourth anniversary of the agreement	750,000
on or before the fifth anniversary of the agreement	1,000,000

#### 4.4 Permits and Environmental Liabilities

In the Yukon, Mineral Titles and regulation are provided by the Yukon Quartz Mining Act and Land Use Regulations. All exploration work requires either a Class 1 Notice or a Class 3 Mining Land Use permit. The latter permit requires a public review of the proposed exploration activity and is granted often with specific conditions applied to the permit.

All claims except Shanghai 87-112 are covered under a Class 3 Mining Land Use Permit LQ00544 valid through December 11, 2030. The Shanghai 87-112 claims are at the very easternmost part of the property and have not seen exploration work to date.

LQ00544 allows the establishment of two camps (up to 30 persons), use of vehicles on existing trails, upgrading existing access roads and trails and the construction of helicopter pads.

The Permit also allows Reverse Circulation, Rotary Air Blast and Diamond drilling of up to 100 holes/year each.

Operating conditions that apply to LQ00544 include:

- Provide a Pre-Season (March 31) and Post-Season (December 21) report in the form provided to Mining Land Use for that Mining District.
- If diamond drilling requires greater than 375 m<sup>3</sup> per day of water the operator must file a Notice of Water Use with the Yukon Water Board.

In advance of ground disturbing activities, the operator must complete:

- Operator shall complete a desktop Heritage Resource Overview Assessment (HROA), and may, if elevated heritage potential is identified, be required to complete a Heritage Resource Impact Assessment (HIRA).
- The operator shall submit an Acid Rock Drainage/Metal leaching Management Plan to the Chief, Mining Land Use for review and approval prior to undertaking ground-disturbing activity.
- The Operator shall develop and implement an Access Management Plan for the Project, to be approved by the Chief of Mining Lands.

A Heritage Resource Overview Assessment would be contacted to a local individual or company with the appropriate qualifications. Estimated costs are included in the proposed Budget Section

#### 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSOGRAPHY

The most immediate and direct access to the Shanghai property is via helicopter from Mayo. The area can be accessed by exploration trails, but swampy areas just before the slope break of the river valley prevent accessing the property by road. Personnel and equipment can be mobilized to within a few kilometers of the claims reducing helicopter costs.

The climate in the Mayo area is typical of the central Yukon. Summers are warm with frequent afternoon showers and thunderstorms. An interior continental climate with precipitation of about 31 cm annually, warm summers and cold winters typifies the area. Permafrost is common, especially on the steeper north and east facing slopes and lower forested areas. Most of the property is within tree line. Ground cover consists of spruce forest, alder, dwarf willow and birch.

The town of Mayo (population 350) is the closest centre for obtaining groceries, fuel, accommodation and some limited rental and contracted exploration services. There is normally a local helicopter company that maintains a summer helicopter base at Mayo airport and a year-round base at Dawson City. There is a 4-kilowatt power station just north of Mayo and a transmission line was just recently constructed between Mayo and Dawson.

The exploration season in this part of the Yukon normally extends from late May to late September but cool rainy conditions and snowstorms are not uncommon in late August and September. The months of June through September are normally free of snow cover.

#### 6. HISTORY

#### **6.1 Introduction**

The Shanghai property area has seen intermittent exploration activity since the 1920's. The first claims recorded were staked in July 1926 by A. Chambers. Between then and 1966, the claims area was explored for Keno Hill style polymetallic veins by various companies and included underground drifting on the shanghai vein structure.

After the ground was staked by Shawn Ryan in 2004 the focus shifted to exploring for mineralization related to the Tombstone suite intrusive event, primarily along the trace of the Robert Service thrust fault. Work included grid soil sampling along the trace of the Robert Service fault and some magnetometer and IP/Resistivity survey tests over the Shanghai polymetallic vein occurrence.

The history is summarized as polymetallic Ag, Pb, Zn, +/- Au vein exploration 1926-1966 followed by the 2004 to present exploration efforts directed at intrusion related gold mineralization related to tombstone suite felsic intrusion event dated at 90-92 ma.

#### 6.2 History 1926-2003

The Shanghai property area has seen intermittent exploration activity since 1926 when the first claim was staked. At that time A. Chambers drove a 24.4 m drift on a polymetallic Ag-Pb-Zn's. The ground was re-staked by several individuals and companies who continued working on the style polymetallic veins on the west side of the current property with small prospecting programs primarily in 1948 and 1950.

In 1960-66, the claims were worked by Silver Titan Mines Ltd, financed by Peso Silver Mining Ltd., under the direction of Dr. Aro Aho. This exploration activity resulted in the discovery of the Shanghai vein structure and mineralization at the Ur discovery (Minfile 105M 027) six kilometers east of the Shanghai Vein Structure (Minfile 105M 028).

Work at the Shanghai vein consisted of 670.6 m of drifting, 115.8 m of crosscuts, 48 m of raise development and 14 diamond drill holes (600.5 m) on the Shanghai vein. The best assays reported from more than 305 m of drifted vein are 51.8 m grading 37.0 gm/t Ag, 0.4% Pb, 13.6% Zn and 0.5% Cu over an average width of 2.5 m.

There are no records of work documented from 1966 up to 2004.

#### 6.3 History 2004-2021

Shawn Ryan, from Dawson City recognized that the Shanghai Creek area was on the northern limb of the McQuesten Anticline. The southern limb hosts both Keno Hill polymetallic veins and the Tombstone suite intrusive related gold targets at the AurMac properties, which were acquired by Banyan Gold in 2017 for Tombstone suite intrusive related gold targets.

A report by Boyle 1971 showed several very high gold values from stream silt pan concentrates in creeks draining the claims.

In early 2004 Shawn Ryan optioned the Shanghai Claims to Yankee Hat Minerals Ltd., who completed geological mapping and prospecting and soil sampling. A five-person crew spent seven days soil sampling on two flagged GPS grids (100 m by 50 m spacing over 30-line kilometers) located over the west and east ends of the claim block. The grids covered and were targeting the trace of the Robert Service fault. A total of 666 soil samples were collected along the trace of the fault. The author visited the property in 2004 and completed an assessment report (Doherty, 2005) and wrote an NI43-101 Report for Yankee Hat Minerals Ltd. in 2005 which was not filed as the company relinquished the Option in December 2006.

In 2006, a four-man crew employed by Ryanwood Exploration Inc., collected 105 soil samples on four 1500 m long soil lines in the central and north part of the claims between the two grids located in 2004.

Between 2007 and 2018 the grids were extended, and an additional 1535 soil sample were collected on new soil lines added in the north-central portion of the property and some infill sampling along the Robert Service Fault trace.

In 2013 further work was completed on the claims, by Ryanwood Exploration Inc., and consisted of an additional soil sample infilling the area between the 2004 soil grids and over the trace of the Robert Service Fault. The work also included geophysical surveys included 45 line-kilometers of ground magnetic survey and seven 415 m long High-Resolution DC Resistivity/IP Survey lines covering a 450 m by 450 m test area over the Shanghai vein. The magnetometer survey (Figure 6.1) reproduced below (Ryan 2014) shows the results and interpretation of magnetic domains. The locations of the Shanghai vein 2250 and 2480 adits are shown.

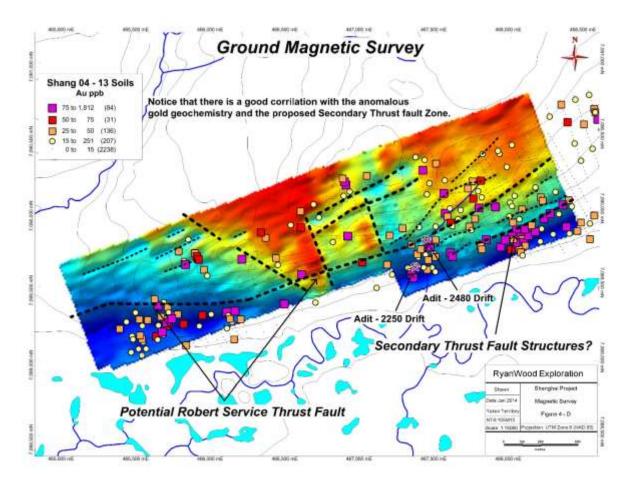


Figure 6.1 Ground Magnetometer Survey

The IP Resistivity survey was completed to define the vertical structure and horizontal extent of mineralized fracture zones indicated in historic soil, trench, and adit exploration. The seven 415 m long survey lines were oriented 145 degrees perpendicular to the 045-degree trace of underlying Shanghai polymetallic vein and the 2250 drift on the vein structure. The survey was hampered by poor connectivity over Lines 02 to 07 but did delineate two quartzite layers 50 and 100 meters wide with four chargeability anomalies within or along the contact of the quartzite.

An additional 792 soil samples were collected in 2021 for Targa Exploration Inc., by a crew from GroundTruth Exploration Ltd. Since 2004 there have been a total of 3098 soil samples collected on the property.

#### 7. GEOLOGICAL SETTING AND MINERALIZATION

#### 7.1 Regional Geology

The Shanghai property is in the western part of the Selwyn basin, in the Stewart plateau physiographic region. The Shanghai Property is located on the northern portion of map area 105

M/13. Rocks underlying this region are part of the more extensive north American shelf platform sediments of Selwyn basin. (Figure 7.1).

Stratigraphy in the area consists of Mississippian Keno Hill quartzites, with foliated concordant podiform to lenticular bodies of fine to medium grained green amphibolite-chloriteplagioclase meta diorite or metagabbro. The Keno Hill quartzites form the core of the McQuesten anticline which is structurally overlain by older upper Proterozoic Yusezyu Formation foliated and lineated muscovite chlorite phyllite, quartzofeldspathic and micaceous psammite, gritty psammite and rare calc-silicate rock and marble. The upper Proterozoic sedimentary package is on the upper plate of the Robert Service thrust which is exposed on the Shanghai property. Cretaceous tombstone suite intrusions are localized along the trace of the Robert Service thrust fault as small discreet stocks.

The polymetallic silver veins of the Keno Hill deposits are localized within the Keno Hill quartzite on the southern limb of the McQuesten anticline. Shanghai property hosts similar polymetallic veins on the western portion of the claims.

The Airstrip and Aurmac deposits are located on the south limb of the McQuesten Anticlinorium 7 km south of the Shanghai vein. Since 2017 the Airstrip and Aurmac deposits have seen extensive exploration and drilling for Tombstone suite intrusion related gold mineralization.

#### SHANGHAI PROPERTY, YUKON NI 43-101 REPORT

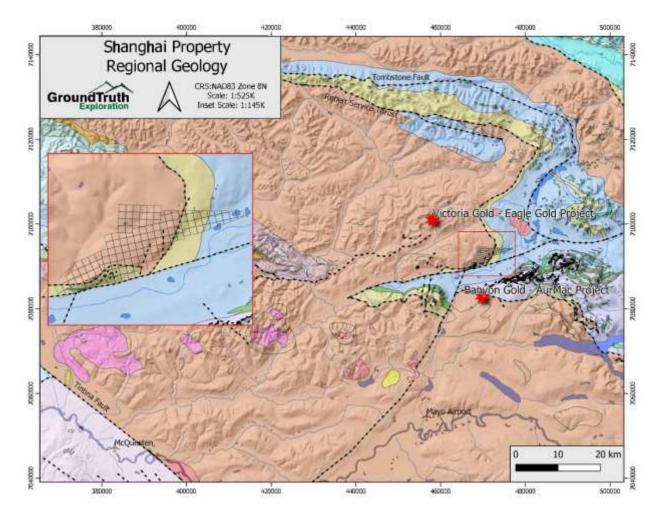


Figure 7.1: Regional Geology

#### 7.2 Property Geology

The geology of the Shanghai property comprises Mississippian Keno Hill quartzites and Triassic meta-diorite and meta-gabbro overlain by Upper Proterozoic Hyland Group Yusezyu Formation phyllite and rare calc silicate rocks. The base of the slope on the north side of the South McQuesten river is a prominent regional thrust fault known as the Robert Service Thrust. The Yusezyu Formation is intruded by a minimum of seven small Cretaceous Tombstone Suite granitic plugs, mostly located within 100-200 meters of the trace of the Robert Service thrust fault.

These intrusive plugs are an exploration target on the property as well as the polymetallic Keno Style veins. The southern limb of the McQuesten Anticline hosts the AurMac property with inferred gold resource in two zones on the Banyan Gold claims. It is a reasonable assumption that gold mineralization may be found associated with the Tombstone Suite intrusions on the north limb of the anticline.

Outcrop on the property is sparse and most surface geology is based on work completed by Silver Titan Mines Ltd in the 1960's. Figure 7.2 Property Geology shows the underlying geology with structures and lineaments derived from historical maps and LiDAR survey data.

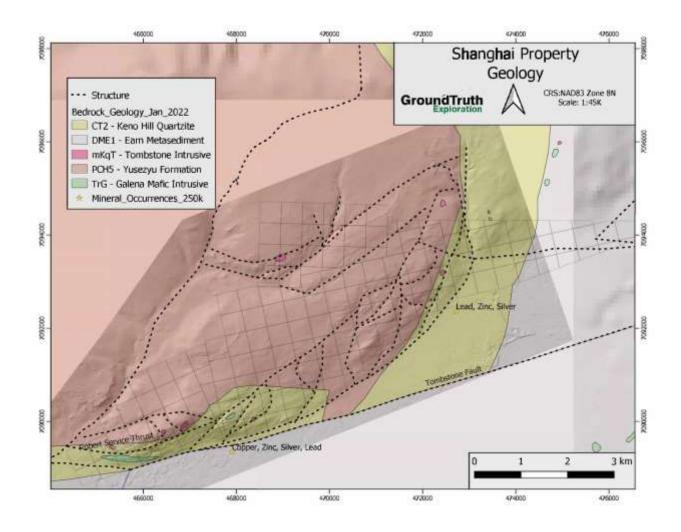


Figure 7.2 Property Geology

#### 7.3. Mineralization

There are two distinct styles of mineralization on the Shanghai Property. The Shanghai showing is a Keno Hill style polymetallic Ag-Pb-Zn  $\pm$  Au vein mineralization. The area along the Robert Service Thrust is the locus of several small Tombstone Suite intrusions which are an excellent target for intrusive hosted or disseminated gold mineralization.

The Shanghai veins (Yukon Minfile 115M-028) were worked by drilling and underground drifting in 1927-28, 1954-58, and 1964-65. The best assays reported from the underground drifting were 51.8 m grading 37.0 gm/t Ag, 0.4% Pb, 13.6% Zn and 0.5% Cu over an average width of 2.5

m An assessment report # 092064 reported the following: "On the Shanghai claims bulldozer trenching in quartzites has just revealed completely oxidized vein material up to several inches wide from which a grab sample assayed 790.5 oz/ton of silver, 1.1 ounces per ton of gold and 10.4% copper"

The primary target on the property since 2004 has been for Tombstone Suite related mineralization. With the more recent discoveries by Banyan Gold at their AurMac property because it is the northern exposure of the same thrust that hosts both the Aurex and McQuesten properties (Strata Gold and Spectrum Gold respectively).

#### 8. DEPOSIT TYPES

The Shanghai Property hosts Keno style polymetallic vein structure explored since the 1920's and including 1960s underground drifting and crosscuts on two levels on the Shanghai vein. On the Ur occurrence 7 km east of the Shanghai vein additional surface exposures of galena-silver veins were mapped and sampled.

Since 2004 the exploration efforts have focused on gold mineralization associated with the 90-94 Ma Tombstone intrusive suite. The historical work on the polymetallic Ag-Pb-Zn veins on the property are still a valid exploration target. Both Keno style Ag-Pb-Zn veins and Tombstone Suite intrusion related gold mineralization are the deposit types being explored for on the Shanghai property.

The reader is cautioned that the data on the Shanghai vein is considered as historical and pre NI43-101 disclosure requirements. There is no mineral resource on the property and the historical underground working have not been investigated as part of this report.

Tombstone Suite intrusive related gold mineralization is associated with felsic stocks of the 90-94 Ma Tombstone suite. Mineralization has been found nearby at Dublin Gulch, Scheelite Dome, Clear Creek, Red Mountain; and more recently a distal variant of the deposit model on the AurMac project 7 km south of the Shanghai property, Pilotto et al., (2022).

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The area has seen considerable exploration activity for intrusive related gold mineralization since 1990. Mineralization consists of intrusion hosted, contact hornfels mineralization and more distal mineralization related to fluid flows along structures and gold deposition in reactive sedimentary or metasedimentary horizons. The McQuesten mineral belt has historically and currently active placer camps.

In the late 1990's the term Tintina Gold Belt became commonly used to describe that area extending for over 2000 km across central Alaska and the Yukon and containing 91 +/- 1 Ma felsic intrusions that often host low grade bulk tonnage and high-grade gold deposits both within the intrusions and surrounding country rock (See Goldfarb et. al., 2000). Gold deposits of the province

have certain similar characteristics, such as spatial and temporal association with mid-Cretaceous magmatism, Bi-W-Te signature in granitoid stock-hosted mineralization, As-Sb signature in sedimentary-rock-hosted and dike-hosted mineralization (Goldfarb and others, 2000).

Tintina Gold Province contains over half of the current gold resources of Alaska and the Yukon. Significant gold resources in the Yukon include Victoria Gold's Eagle and Olive Zones with proven and probable Reserve of 155 million tonnes at 0.65 gm/t Au (3.26 million ounces gold), Godwin et al 2019; Florin Gold Project (Red Mountain) with an inferred resources of 1.709 million tonnes of 0.45 gm/t Au tonnes ounces gold), Simpson, (2021): Brewery Creek indicated Mineral Resource of 22.2 million tonnes at 1.11 g/t Au (0.789 million ounces), Hulse et al, (2020); and Banyon Gold's AurMac Property (Airstrip + Powerline +Aurex Hill deposits) with a pit constrained Inferred Mineral Resource of 207.0 million tonnes at 0.60 gm/t Au (3.99 M oz with gold cut-off grade at 0.20 for Airstrip and Powerline and 0.30 for Aurex Hill, Pilotto et al., (2022).

#### 9. EXPLORATION

During 2021, Targa Exploration Corp., conducted infill soil sampling along the trace of the Robert Service fault and completed a LiDAR Survey over the claims with some minor overlap outside of the claim perimeter.

### 9.1 LiDAR Survey

A Lidar Survey was completed by LiDAR Services International of Calgary over the Shanghai Property on September 1, 2019.

The LiDAR and imagery data were collected in one flight mission on September 1, 2019, based out of the Mayo Airport. The project consisted of 6 pre-planned flight lines flown at an average height of 850 m above ground level and a forward speed of 215 km/h. The Riegl LMS Q780 laser pulsed at a rate of 400 kHz and the laser scanned at a rate of 134 Hz, resulting in an average point spacing of 0.45 m or 5.0 points per square meter. The Canon EOS-5D MKIII digital camera took a photo every 3.8 seconds resulting in 60% forward overlap between consecutive photos



Figure 9.1 Shanghai Property (red outline) with LiDAR Survey Flight lines (white).

Figure 9.1 Shows the east-west flight lines for the LiDAR survey. The survey covered an area of 57 square kilometers over the Shanghai property.

The LiDAR survey data was processed with the following deliverables:

- Horizontal Datum: NAD83(CSRS) in meters
- Vertical Datum: CGVD2013 orthometric heights in meters
- Mapping Projection: UTM Zone 8N (central meridian -135 degrees longitude)
- LiDAR LAS v1.2 point clouds classified to Ground, DTM Key Point, Low Vegetation (up to 1 m above ground) and High Vegetation (greater than 1 m above ground)
- Bare Earth and Full Feature grid points at 1 meter spacing in ASCII XYZ format
- Greyscale hillshades of Bare Earth and Full Feature surfaces at 1m pixel resolution in GeoTIFF format
- Ortho-mosaic color digital imagery with 20 cm pixel resolution in compressed ECW and GeoTIFF formats
- Index map in DWG and DGN formats

It is recommended that a detailed lineament analyses be completed to assist in mapping and drill targeting prior to any drilling.

#### 9.2. Soil Sampling

The results of the 2021 soil sampling program are shown on the compilation map (Figure 10.1) outlined several areas anomalous in gold, arsenic and antimony localized along the fault trace or proximal to the small intrusive plugs.

Table 9.1 soil data correlation coefficients shows a strong correlation between Au:As (0.68), Au:Bi (0.39) and As:Bi (0.54). Antimony (Sb) correlates with Ag (0.79), Pb (0.61) and Zn (0.66).

SHANGHAI SOILS									
2004-2021			n = 3099						
	Au	As	Bi	Sb	Ag	Pb	Zn	Cu	Мо
Au	1								
As	0.680421	1							
Bi	0.389188	0.549751	1						
Sb	0.189626	0.227343	0.248488	1					
Ag	0.20613	0.200611	0.124131	0.79753	1				
Pb	0.119695	0.112169	0.129519	0.612669	0.348625	1			
Zn	0.173234	0.173552	0.157945	0.666498	0.134733	0.32779	1		
Cu	0.011121	0.023551	0.157426	0.287016	0.204635	0.261718	0.301758	1	
Мо	0.005271	0.081283	0.19298	0.125314	0.081283	0.054406	0.098104	0.399271	1

**TABLE 9.1:** Soil Data - Selected element correlation coefficients

Anomalous values (strong, moderate, weak) are listed below in Table 9.2 for Au, Ag, As, Sb, Bi, Pb and Zn.

The soil geochemical data from 2022 combined with prior soil sampling efforts now comprises a database of 3099 samples. Correlation coefficients show two clusters of elemental associations: Au correlates with As and Bi; and Pb correlates with Ag and Zn.

#### Table 9.2: Anomalous Ranges for Selected Elements

ANOMALY RANK	> %tile	Au (ppb)	Ag (ppm)	As (ppm)	Sb (ppm)	Bi (PPM)	Pb (ppm)	Zn (ppm)
Strongly Anomalous	>98%tile	114.9	1.61	282.6	5.4	0.6	70.6	273.7
Moderately Anomalous	>96%tile	46.9	1.1	150.2	4.1	0.5	44.9	1721
Weakly Anomalous	>90%tile	20.8	0.6	83.9	2.7	0.4	31.3	116

Figure 9.1 provides a compilation of the 3099 soils data collected from 2004 to 2021, plotted on a Lidar base.

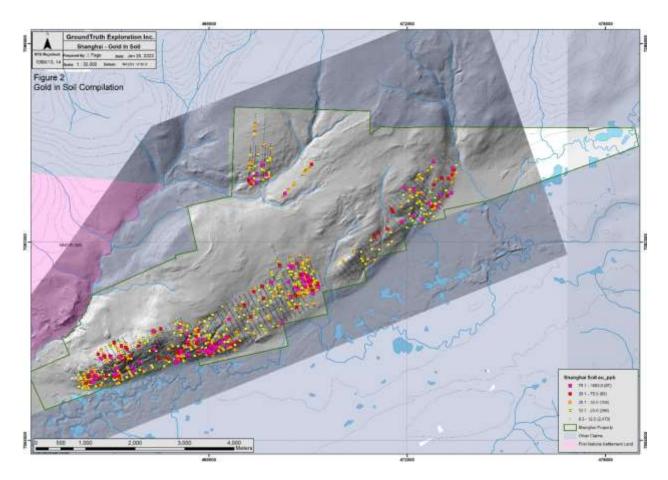


FIGURE 9.1 Gold in soils compilation map 2004-2021 data.

Five clusters of anomalies (>98<sup>th</sup> percentile) for Ag-Au versus As, Bi, Sb, and Pb are noted in the data set and two anomaly clusters are primarily Au, with As, Bi and Sb in the center of the property with three that show a stronger Ag-Pb-Zn signature in soils.

#### 9.3 Zonal Maps of Soil data for Ag\_Au versus As, Bi, Sb, Pb

The following four Figures 9.2.1 to 9.2.4, show plots of the elements Arsenic (As), Bismuth (Bi), Lead (Pb), and Antimony (Sb) at  $>98^{th}$  percentile plotted against clusters of anomalous Silver-Gold (Ag-Au) for values above the  $98^{th}$  percentile.

The Anomalous zones (>98% tile) are labelled on each map as follows:

- **High Silver Moderate to High Gold**: Ag, Au, Pb, Sb, Zn are all quite abundant here, exception is Bismuth. This zone can also be considered an area of large structure dilation.
- Area of dilation High Silver High Gold: Strong Ag, Zn, Pb, Au presence in this zone. Slightly less Sb, Bi and As presence but these 3 elements are more associated to gold highs than Zn and Pb.
- Mainly Au Strong associations with As, Bi, Sb: The heading says it all, Au and these three elements are predominant in this zone.
- Low Silver Moderate Gold: High concentrations of zinc are not present, less Pb than other zones. Ag seems to be constrained to one area of this zone. Sb, Bi and As highs are amongst Au highs.
- Gold Area Association Sb, Bi, As: Predominantly Au, Sb, Bi and As with some Pb anomalies. Lower Ag.

There is a Zonal map for the elements As, Bi, Pb, and Sb showing the locations of concentrations of each element (>98% tile) values in relation to Ag and Au values (>985 tile) for each of As, Bi, Pb and Sb maps.

Colours on the maps are shown on the legend for each maps follows: Au is yellow, Ag is blue, the other element (either As, Bi, Pb, or Sb) is red for each respective map.

If a single soil sample has two elements in the  $> 98^{th}$  percentile range, then the colours combine (i.e. Au (yellow) and As (red) = orange).

If all 3 elements are above 98<sup>th</sup> percentile the symbol will be **white.** This is only seen on the two western zones.

The plots indicate that the two anomalous zones in the central part of the property appear to reflect the Tombstone suite mineral deposit model (Au, As, Bi, Sb) whereas the two southwestern and the far eastern anomalous cluster appear to reflect the Polymetallic Ag-Pb-Zn mineral deposit model of the Keno Silver District.

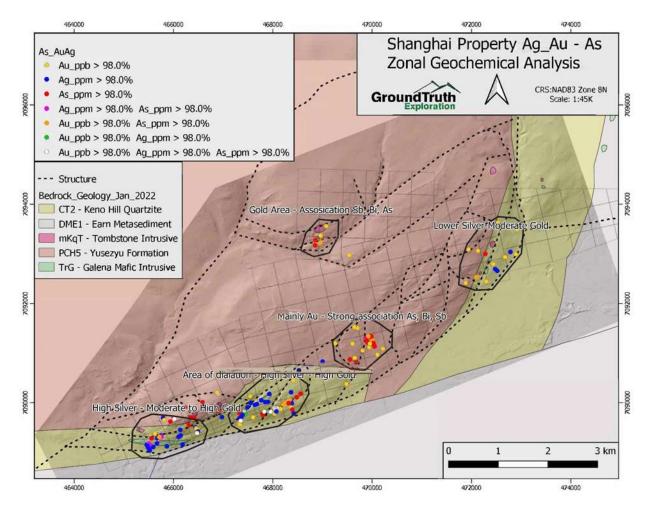


Fig 9.3.1 – Shanghai Property Ag and Au – As Zonal Geochemical Analysis

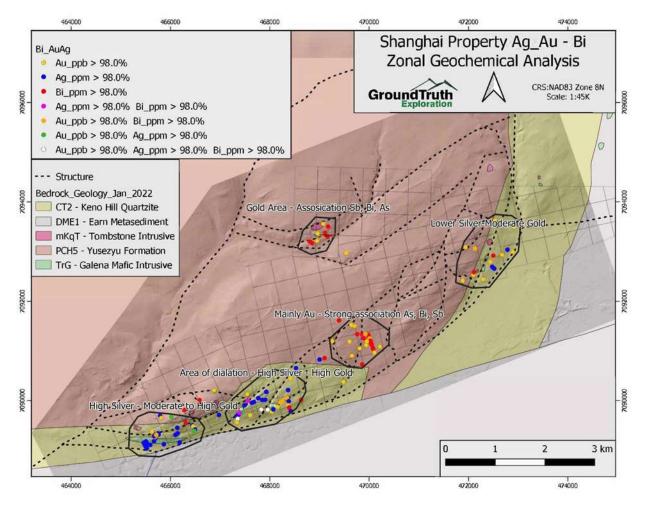
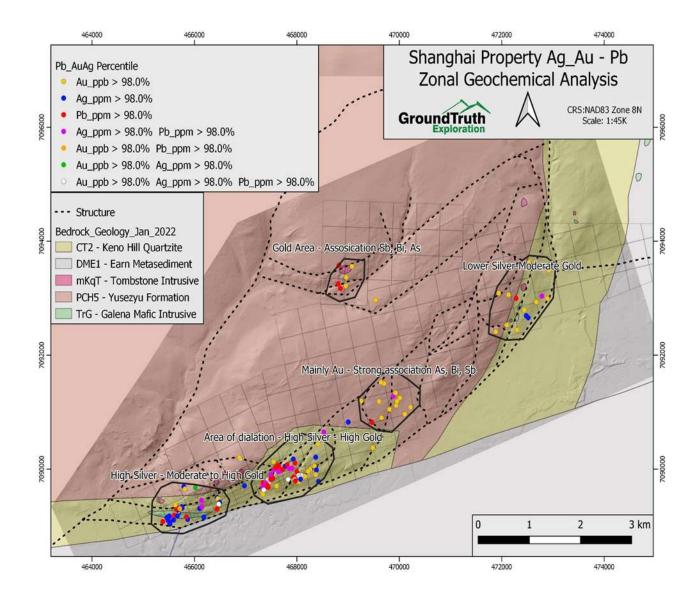


Fig 9.3.2 – Shanghai Property Ag and Au – Bi Zonal Geochemical Analysis



9.3.3 Shanghai Property Ag and Au – Pb Zonal Geochemical Analysis

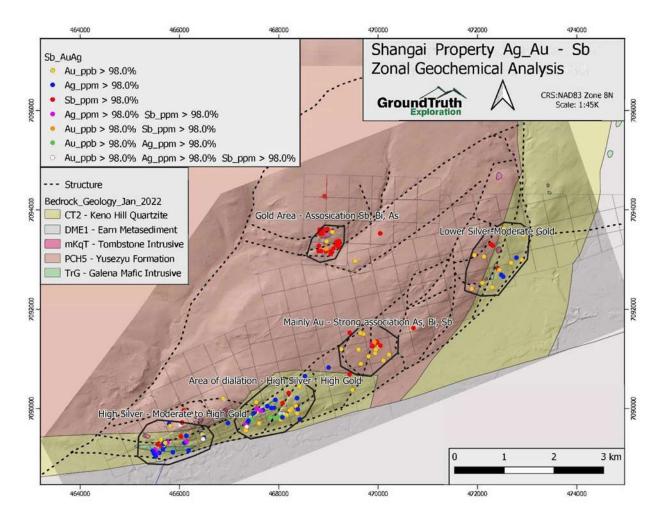


Fig 9.3.4 – Shanghai Property Ag and Au – Sb Zonal Geochemical Analysis

#### **10. DRILLING**

There has not been any recent drilling on the property (2004-2021). Drilling and underground development on The Shanghai polymetallic veins on the west side of the property are reviewed in Section 8 History.

#### **11. SAMPLING METHOD AND APPROACH**

Samples collected on the Shanghai Claims during the 2021 exploration program were all soil samples. Where soil development allowed, most samples were collected from B-Horizon soil. Soil samples were collected on a GPS grid at 50 m spacing on 100 m spaced lines. Soil samples were collected using soil augers from depths of 30-60 cm. Samples were placed in kraft soil bags, numbered, and placed in rice bags for transport to Dawson dried and shipped to the Bureau Veritas prep lab in Whitehorse. Soil data statistics from individual season data do not vary significantly when comparing data from specific years versus data for the entire soil dataset.

#### **11.1. Sample Preparation, Analysis and Security**

Soil samples collected in 2021 were prepared for analyses by Bureau Veritas Laboratories Prep lab in Whitehorse and analyses of prepared samples was completed in Vancouver, B.C. All assay certificates received were approved and signed by a certified B.C. assayer. Prior to dispatch from the property, all samples were placed in rice bags by soil sampling crews and secured with tamper resistant ties. The samples were then consigned to Klondike Transport Ltd. and shipped to Bureau Veritas Analytical Laboratories Ltd in Vancouver.

#### **11.2 Preparation and Analytical Techniques**

Soils are dried at 60° C, and a 100-gm sample is screened to -80 mesh. A 15-gm sample is digested in Aqua Regia (1:1:1 HNO3: HCL: H2O) then analyzed by ICP-ES/MS for Au plus 36 elements Bureau-Veritas Method AQ201.

#### **11.3 Quality Control**

Quality control procedures on soil analytical data consisted of standardized soil sampling techniques. Bureau Veritas ran internal check analyses on soil samples submitted by running one standard and one re-run for every 30 samples submitted. It is recommended that in future soil sampling programs a blind field duplicate should be collected at every 25<sup>th</sup> sample site.

The exploration program in 2021 was conducted by GroundTruth Exploration Ltd, on behalf of Targa Exploration Corp by a supervised a crew of five soil samplers.

AQ252

1.70

5.37

0.04

Ca

%

0.03

< 0.02

Soil samples collected in 2021 were prepared for analyses by Bureau Veritas Laboratories Prep lab in Whitehorse and analyses of prepared samples was completed in Vancouver, B.C. All assay certificates received were approved and signed by a certified B.C. assayer. Prior to dispatch from the property, all samples were placed in rice bags by soil sampling crews and secured with tamper resistant ties. The samples were then consigned to Klondike Transport Ltd. and shipped to Bureau Veritas Analytical Laboratories Ltd in Vancouver.

#### **11.4 Authors Opinion on Adequacy**

The author's review of all the geochemical data and details of sample collection, sample preparation, sample security and analytical procedures indicates that the sampling preparation, analysis, and security were generally performed in accordance with exploration best practices at the time of collection.

#### **12. DATA VERIFICATION**

#### **12.1 Site Visit Verification**

The author completed a property visit on May 5, 2022 and collected three samples from the Shanghai Adit dump. Due to snow conditions at site the author was only able to visit the Shanghai adit dump.

Sample D870001-D870003 were submitted to Bureau Veritas and analyzed using AQ252 method using 1:1:1 Aqua Regia digestion and Ultratrace ICP-MS analyses of a 30-gm pulp.

Sample D870001 was a tan colored rusty phyllite; D870002 was a phyllite with over 60% quartz calcite veining with cubic pyrite (< 1%); and D870003 was a mafic dyke rock. The analytical results from Certificate WHI22000179 for selected elements are listed below.

		WGHT	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Wgt	Cu	Pb	Zn	Ag	Fe	As	Au	Cd	Sb	Bi
Sample	Туре	KG	PPM	PPM	PPM	PPB	%	PPM	PPB	PPM	PPM	PPM
D870001	Rock	0.53	29.57	16.91	3049.8	681	2.20	29.3	<0.2	26.87	0.26	0.07

489.0

14.0

TABLE 12.1 INDEPENDENT SAMPLE RESULTS - CERTIFICATE WHI22000179

61.28

40.75

28.83

1.33

#### **12.2 Data Verification**

D870003 Rock

Rock

1.06

1.10

D870002

The author has reviewed all previous reports on the property. The previous work on the property 1926-1966 was completed prior to NI 43-101. There was no QA/QC of sampling methodology discussed in any geological report that the author reviewed. All soil geochemical data was reviewed and there were no issues identified.

2237

787

4.77

0.33

658.0

11.5

740.6

5.1

5.47

0.19

0.88

0.55

The author has no reason to believe that the data as presented is not an accurate representation of facts at this early stage of exploration on the Shanghai Project.

#### **12.3 Conclusions**

It is the authors opinion that the data presented is valid and of sufficient quality and reliability to support the recommended exploration program.

#### **23. ADJACENT PROPERTIES**

There are no Adjacent properties with data or results that are applicable to the Shanghai property.

#### 24. OTHER RELEVANT DATA AND INFORMATION

There is, to the author's knowledge no additional data or information, of either a positive or negative aspect, that would change the data as presented or the contained recommended work program.

#### **25. INTERPRETATION AND CONCLUSIONS**

The soil sampling programs completed from 2004 to 2021 has produced results that show strongly anomalous gold values (>98%tile); along the 8 km length of the Robert Service thrust fault on the southern side of the claims. The gold in soil anomalies is accompanied by strong to moderately anomalous arsenic. Most anomalous samples are close to the traces of the Robert Service thrust fault and to small plugs of Tombstone suite intrusions.

The data indicates that the original concept of gold mineralization associated with the fault trace and intrusive plugs is valid.

Follow-up work should consist of additional soil sampling and trenching on the anomalous zones along the trace of the Robert Service Thrust fault and proximal to exposures of porphyritic granites near the fault trace but also north of the fault trace where several strongly anomalous gold in soils are reported.

Polymetallic vein fault structures at the Shanghai vein structure and on the Ur mineralized showing are evidence of a second deposit type on the claims but all data is from 1950-1966 and is considered as historical data that has not been vetted during the current exploration work conducted between 2004 and 2022.

The soil geochemical data from 2022 combined with prior soil sampling data now comprises a database of 3090 samples. Correlation coefficients show two clusters of elemental associations: Au correlates with As and Bi; and Pb correlates with Ag and Zn.

Five clusters of anomalies (>98<sup>th</sup> percentile) for Ag\_Au versus As, Bi, Sb, and Pb are noted in the data set and two of the clusters are primarily Au, with As, Bi and Sb. Also, of note it is only on the two western anomalies that both Au and Ag and the element plotted are all anomalous at the 98% tile. The two anomalies in the center of the property appear to reflect possible intrusion related mineralization by the Au, As, Bi geochemical signature and the absence of Ag, Pb Zn.

#### **26 RECOMMENDATIONS**

Follow-up work should consist of additional soil sampling to infill on the higher ground between the long southern grid and the smaller northern grid area. and trenching on the anomalous zones on the main southern grid. Infill soil sampling between the east-west southern grid and small northern grid should be completed. Ground magnetometer survey should be completed over the remainder of the southern grid and extended to the north grid areas.

Surface outcrop and felsenmeer mapping should be completed over as much of the anomalous areas as possible. The mapping should also include rock sampling, when possible, to better define mineralization and associated rock types on the grids and specifically to obtain analytical data on any mineralized associated with the soil anomalies.

A \$150,000 exploration program is recommended and warranted on the Shanghai property. The program would include:

- extension of the existing grids, primarily on the central easter side of the property above 940 m elevation to avoid low swampy areas in the center of the property.
- Additional ground magnetometer surveys over the trace of the Robert Service fault.
- Outcrop mapping, and prospecting and rock sampling where possible to better understand the structural and lithological controls on mineralization both the Ag-Pb-Zn polymetallic veins and possible Tombstone suite intrusion related gold mineralization.
- LiDAR Lineament analysis could assist in mapping and drill targeting.
- The better-defined anomalies should be followed up with short fences of 2-3 RAB drill holes to further evaluate the soil anomalies and to obtain samples of rock lithologies and possible mineralization producing the soil anomalies.

A proposed exploration budget is presented below:

## **Table 26.1 Proposed Exploration Budget**

Management & Supervision	\$2,000.00
Geological Mapping and Prospecting	\$5,000.00
Rock sample Analyses (60 samples)	\$2,400.00
Soil Sample Analyses (600 samples)	\$18,000.00
Grid Soil Sampling (600 samples)	\$10,000.00
Magnetometer Survey/LiDAR Analyses	\$12,000.00
Helicopter Support (40 hours)	\$40,000.00
Camp and Supplies	\$6,000.00
RAB drilling	\$25,000.00
Fuel	\$3,000.00
Environment and Permitting	\$3,000.00
Reports and Assessment Fees	\$4,000.00
Contingency @ ~ 15%	\$19,600.00
Total Proposed Budget	\$150,000.00

Respectfully submitted, July 15, 2022

R. Allan Doherty, P. Geo.

#### **27. REFERENCES**

- Aho, A.E., 1964. Report on the Shanghai Silver-Lead Property, Mayo Mining District. #005628
- Aho, A.E., 1964. Titan Project Report on Progress of Exploration No 6. Mayo Mining District #00573
- Cox, D.P. and Singer, D.A., Editors (1986): Mineral deposit models; U.S. Geological Survey, Bulletin 1693, 379 pages.
- Doherty, R. A., 2005. Assessment Report on Shanghai Property for Yankee Hat Minerals Ltd.
- Goldfarb, R. C. Hart, M. Miller, L. Miller C.L. Farmer, and D. Groves, 2000. The Tintina Gold Belt A Global Perspective in Tucker, T.L., and Smith, M.L. Technical chairs, The Tintina Gold Belt: Concepts, Exploration, and Discoveries, Special Volume 2, British Columbia and Yukon Chamber of Mines.
- Goodwin R, Gray P, Jutras M, Tang S, Wilbur S., 2019: Technical Report for the Eagle Gold Mine, Yukon Territory, Canada. JDS Energy & Mining Inc
- Hulse D, Emanuel C, Cook C., 2020: NI43-101 Technical Report on Mineral Resources. Gustavson Associates. May 31, 2020.
- Moore, G.W., 1951. Report on the Shanghai Yukon Prospecting Syndicate Property, Mayo Mining District, Yukon Territory. #091761
- Murphy, D. C., 1997. Geology of the McQuesten River Region, Northern McQuesten and Mayo Map Areas, Yukon Territory (115P14, 15, 16; 105M13, 14)
- Pilotto, D., Jutras, M., and R. N. Gow, 2022 Technical Report Aurmac Property Mayo Mining District, Yukon Territory, Canada. Prepared for Bayan Gold Corp by JDS Energy and Mining Inc.
- Ryan, S., 2006. Geochemical Assessment Report Shanghai Claims, Mayo Mining District. #094949
- Ryan, S., 2008. Geochemical Assessment Report Shanghai Claims, Mayo Mining District, #095658
- Ryan, S., 2014. 2013 Geophysical/Geochemical Assessment Report, Shanghai Claims, Mayo Mining District, YMEP #2013-026
- Simpson, R.G., Doherty, R. A., 2021 Florin Gold Project NI 43-101 Technical Report, Mayo Mining District, Yukon for St. James Gold Corp.

**YUKON MINFILE** - Mineral Occurrence Maps - Version 2004-1. Yukon Geological Survey, Energy, Mines and Resources, Yukon Government, 2004.

YUKON MAP VIEWER: https://mapservices.gov.yk.ca/geoyukon/?&layertheme=mining

### **CERTIFICATE OF QUALIFIED PERSON**

#### R. ALLAN DOHERTY, P. GEO.

This certificate applies to NI 43-101 technical report titled "**Shanghai Project Technical Report**" prepared for Targa Exploration Corp., (the "technical report") and effective as of July 15, 2022.

I, R Allan Doherty, P. Geo., do hereby certify that:

1. I employed as a professional geoscientist with:

Aurum Geological Consultants Inc. 106A Granite Road Whitehorse, Yukon, Canada y1a 2v9

- 2. I graduated with a Bachelor of Science in Geology from the University of New Brunswick in May 1977.
- 3. I am a Professional Geoscientist (20564) in good standing with the Association of Professional Engineers and Geoscientists of British Columbia
- 4. I have practiced my profession continuously for 44 years. I have been directly involved in mineral exploration, primarily in the Yukon and British Columbia since 1981. I have experience with, and authored technical reports on, other intrusive-hosted gold deposits.
- 5. I have read the definition of "qualified person" set out in the national instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am independent of the issuer, property, and vendor as described in section 1.5 of NI 43-101.
- 7. I am responsible for all sections of the technical report.
- 8. I have had prior involvement with the project. I supervised the 2004 program for Yankee Hat Minerals Corp. I conducted a property visit for Targa Exploration Corp. on May 5, 2022 and collected three representative samples from the Shanghai adit dump.
- 9. I have read national instrument 43-101, form 43-101f1 and the technical report has been prepared in compliance with this instrument.
- 10. As of the effective date of the technical report, to the best of my knowledge, information and belief, the technical report, contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed this 15th day of July 2022.

(signed & sealed) R. Allan Doherty

R. Allan Doherty, P.Geo.