# Year-2003 Assessment Report
# on the
# FAR -TP Project
# Thor Explorations Ltd.

**Clear Creek area, Yukon Territory**

094456

FAR 31 – 34 Claims (YB 42033 – YB 42036)
FAR 51 – 54 Claims (YB 42053 – YB 42056)

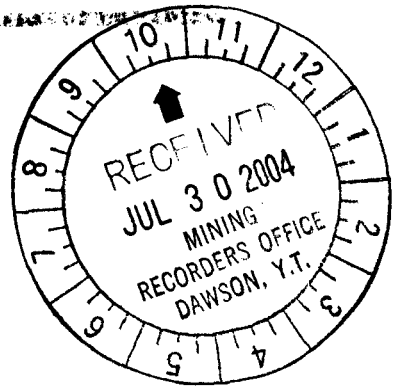
TP 2 Claim (YB 48042)
TP 4-8 Claims (YB 48043 – 48047)

FAR Claim Block: 63° 49' 30" N Latitude; 137° 02' 50" W Longitude
TP Claim Block: 63° 47' 20" N. Latitude; 137° 04' 40" W Longitude

NTS sheets 115P/14 and 115P/15

Dawson Mining District

**Field Work Performed: Sept 23, 2003**




By: Carl Schulze, PGeo,
All-Terrane Mineral Exploration Services
35 Dawson Rd
Whitehorse, Yukon Y1A 5T6
Tel: 867-633-4807
Fax: 867-633-4883
allterrane@northwestel.net

**July 26, 2004**

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 4900.

M. Burke

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

Costs associated with this report have been approved in the amount of $ 4,900 for assessment credit under Certificate of Work No. 2D00468-469

A/ Mining Recorder
Dawson City Mining District

## Summary

In September 2003, a one-day surface exploration program consisting of systematic B-horizon soil sampling and limited geological mapping and rock sampling was conducted across the FAR 31-34, 51-54 and TP 2, 4-8 claims. These form parts of a 110-unit property held by Thor Explorations Ltd of Vancouver, British Columbia. The 2,230-hectare (5,500-acre) property is located within the Dawson and Mayo mining districts on NTS sheets 115P/14 and 115P/15, in the Clear Creek area about 120 kilometres east-southeast of Dawson City, Yukon.

Year-2003 exploration was hampered by poor weather conditions, including some snow cover, but nonetheless confirmed the presence of anomalous gold-in-soil mineralization first identified in 1994 by Thor. Year-2003 soil sampling on the FAR block identified a 100-metre gold-tungsten anomaly averaging 0.131 g/tonne gold and 125 ppm tungsten. The source is likely a zone of gold-tungsten bearing quartz vein and/or stockwork mineralization, possibly with minor skarn enrichment, along or near the southeast margin of the Rhosgobel stock. Although this mineralized zone is likely of limited extent, systematic 1994 sampling revealed a trend of numerous anomalies representing several other mineralized zones, likely extending eastward beyond surveyed areas. This anomalous trend appears contiguous with the previously identified "South Rhosgobel tungsten-gold zone" to the west.

Year-2003 exploration on the TP claim block revealed a strong gold-in-soil anomaly of 0.326 g/tonne on the TP 8 claim. Associated weakly anomalous lead-zinc-silver values suggest a mesothermal gold vein or stockwork source, possibly of significant size.

Most of the Clear Creek project area has not undergone significant exploration, although the Big Creek stock area is prospective for intrusive-hosted or related gold +/- tungsten mineralization. The Big Creek and Rhosgobel stocks, sharing the same broad hornfelsed aureole, are likely members of an interpreted larger subsurface intrusion. Hyland Group sediments overlying this intrusion are prospective for skarn, vein and stockwork mineralization.

A significant two-phase surface exploration program across the entire project area is recommended, consisting of a first phase of reconnaissance-style traverses followed by a second phase of grid establishment, detailed mapping, sampling and ground magnetometer and electromagnetic surveying across areas targeted from the first phase. Phase 1 exploration shall include detailed follow-up work to identify anomalous areas on the FAR and TP blocks. The second phase should be undertaken only if warranted by favourable first phase results.

Projected first phase expenditures total CDN$78,357.00, including 10% contingency, for a 4-person, helicopter-assisted 13-day field program. Projected Phase 2 expenditures total $142,081.50 for a 4-person, 28-day program. The total projected cost of both project phases, including 10% contingency, is $220,438.50.

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# 1.0 Introduction and Terms of Reference

## 1.1 Introduction

On September 23, 2003 All-Terrane Mineral Exploration Services conducted a one-day field exploration program on the FAR-JD and TP properties 100% held by Thor Explorations Ltd. The project area consists of 110 unpatented quartz mining claims covering roughly 2230 hectares (5500 acres) in the Clear Creek area, 125 air kilometers east-southeast of Dawson City, central Yukon Territory. The project area consists of the FAR 1-30 claim block; the FAR 31- 64 and FAR 65-70 block (restaked as the FARTHER 1-6 claim block); the JD 2 claim, the TP 2, 4-8 claim block surrounded by the JD 35-52, 55-64 and 87-91 claim blocks. The claim blocks are located on NTS sheets 115P/14 and 115P/15.

The year-2003 program focused on the FAR 31–34, 51-54 claims, centered at 63° 49' 30" N Latitude, 137° 02' 50" W Longitude; and the TP 2, 4-8 claims centered at 63° 47' 20" N. Latitude, 137° 04' 40" W Longitude. The program consisted of systematic B-horizon soil sampling and limited geological mapping, prospecting and rock sampling, and was limited due to budget restrictions and poor weather, including some snow cover.

## 1.2 Terms of Reference

The author has been requested to write this report using these terms of reference:

a) To review and compile the available information and data, including geological, structural and geochemical data obtained by All-Terrane Mineral Exploration Services while in service to TLC Ventures Corporation pertaining to the aforementioned Far, JD and TP claims and associated interpreted mineral, particularly gold, potential.

b) To comply with the TSX Venture Exchange regulatory requirements.

c) To follow the guidelines and framework defined in the Form 43-101-F1, pertaining to National Instrument 43-101: "Standards of Disclosure for Mineral Projects".

d) To support the technical disclosure by TLC Ventures Corporation in its Annual Information Form.

## 1.3 Sources of Information

This report is based on information obtained from assessment reports and internal documents, including geological and geochemical maps, rock, soil and silt geochemical results, produced by Thor Explorations Ltd on the TP, JD and FAR claims. Year-2003 data was obtained in the field by All-Terrane Mineral Exploration Services, which also

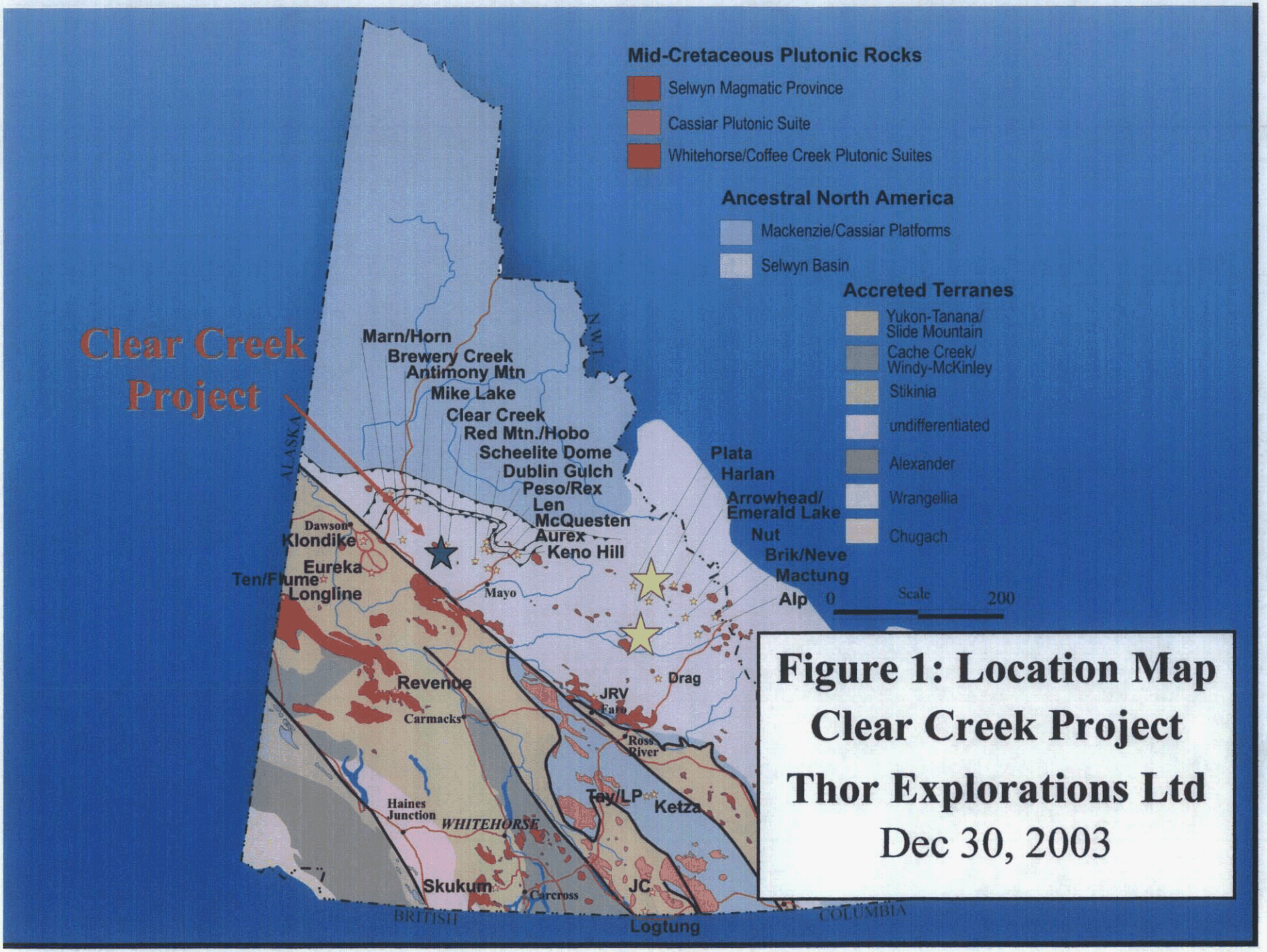



**Figure 1: Location Map**
**Clear Creek Project**
**Thor Explorations Ltd**
Dec 30, 2003

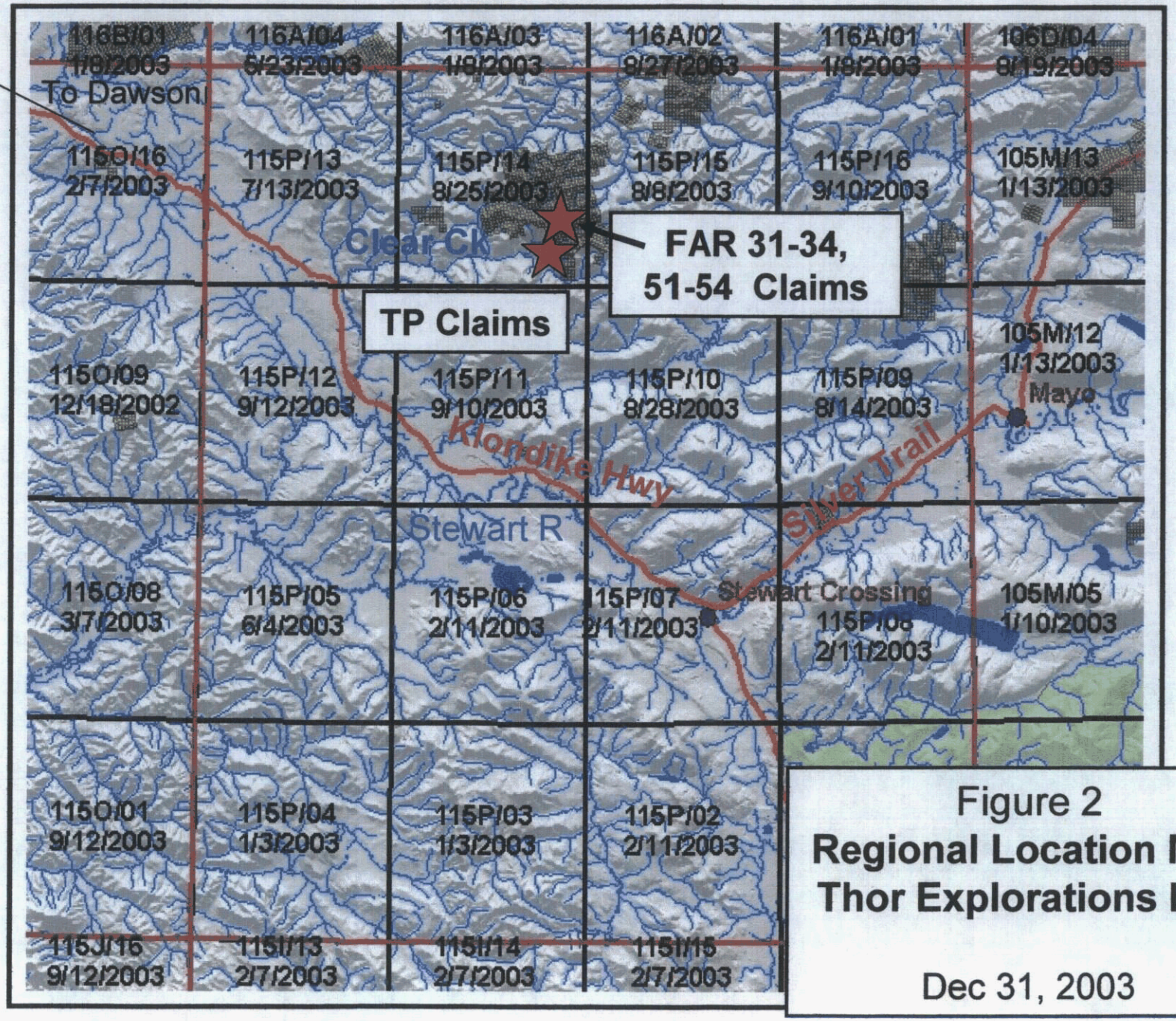



Figure 2
**Regional Location Map**
**Thor Explorations Ltd.**

Dec 31, 2003

provided interpretation of results. Historical data was provided by the Yukon "Minfile" produced by the Yukon Geological Survey. Numerous government documents and papers were also referenced in this report (see Section 13; References).

### 1.4: Field Involvement of Qualified Person

Mr. Carl Schulze, PGeo, the Qualified Person for this report, was involved in all aspects of the field program in September 2003, and was present during the entire program. Mr. Schulze was actively involved in surface exploration on the TP 2, 4-8 claims and supervised exploration on the FAR 31-34 and 51-54 claims. Mr. Schulze conducted interpretation of geological, structural and geochemical results obtained by All-Terrane in service of Thor Explorations Ltd.

**Disclaimer:** The author cannot confirm that sample collection techniques and geological, geophysical, geochemical and structural interpretations obtained from past assessment reports were done in compliance with, or would be deemed done in compilation with current regulations under National Instrument 43-101.

## 2.0 Property Description and Location

The project area consists of 110 unpatented quartz mining claims covering roughly 2,230 hectares (5500 acres) in the Clear Creek area, 125 air kilometers east-southeast of Dawson City, central Yukon Territory (Figures 1 and 2). The project area consists of the FAR 1-30 claim block; the FAR 31- 64 and FAR 65-70 block, restaked as the FARTHER 1-6 claim block, separated from the FAR 1-30 block by a narrow strip of Crown Land; the JD 2 claim, and the TP 2, 4-8 claim block surrounded by the JD 35-52, 55-64 and 87-91 claim blocks.

The FAR 1-30 claim block consists of 30 contiguous unpatented quartz mining claims centered at 63° 51' 15" N Latitude; 137° 00' 00" W Longitude covering about 607 hectares (1,500 acres) (Figure 3,Table 1). The FAR 31-64 block consists of 34 contiguous quartz claims comprising 690 hectares (1704 acres), centered at 63° 51' 15" N Latitude, 137° 0' 0" W Longitude. The Farther 1-6 claims, comprising 120 hectares (296 acres) located in the Mayo Mining District, are contiguous with the south-east boundary of this block. The JD 2 claim, covering about 20 hectares (50 acres) is located due south of the FAR 31-64 block, centered at 63° 48' 55" N Latitude, 136° 59' 25" W Longitude. The TP claim block consists of 6 unpatented quartz mining claims, the TP 2 and TP 4-8 claims, covering roughly 115 hectares (258 acres), centered at 63° 47' 20" N. Latitude, 137° 04' 40" W Longitude. The TP claims are contiguous with the JD 35-52, 55-64 and 87-91 claim block, covering about 678 hectares (1,692 acres) to the north, east and west. All claims other than the FARTHER 1-6 claims are in the Dawson Mining Division.

## Table 1: Claim Status: Clear Creek Project
## Thor Explorations Ltd/ TLC Ventures Corp.

| Claim Name | Grant No's. | Expiry Date | Owner | % Owned | NTS Sheet |
|---|---|---|---|---|---|
| | | | | | |
| FAR 1 - 30 | YB42003 - YB42032 | 07-Jun-04 | Thor Exploration | 100% | 115P/14 |
| FAR 31 - 34 | YB42033 - YB42036 | 07-Jun-07 | Thor Exploration | 100% | 115P/14 |
| FAR 35 - 50 | YB42037 - YB42052 | 07-Jun-04 | Thor Exploration | 100% | 115P/14 |
| FAR 51 - 54 | YB42053 - YB42056 | 07-Jun-07 | Thor Exploration | 100% | 115P/14 |
| FAR 55 - 64 | YB42057 - YB42066 | 07-Jun-04 | Thor Exploration | 100% | 115P/14 |
| FARTHER 1-6 | YC10363 -YC10368 | 20-Jun-04 | Thor Exploration | 100% | 115P/15 |
| JD 2 | YB48279 | 24-Mar-05 | Thor Exploration | 100% | 115P/14 |
| JD 35 - 52 | YB48312 - YB48329 | 24-Mar-05 | Thor Exploration | 100% | 115P/14 |
| JD 55 - 64 | YB48332 - YB48341 | 24-Mar-05 | Thor Exploration | 100% | 115P/14 |
| JD 87 - 91 | YB48342 - YB48346 | 24-Mar-05 | Thor Exploration | 100% | 115P/14 |
| TP 2 | YB48042 | 09-Feb-09 | Thor Exploration | 100% | 115P/14 |
| TP 4 | YB48043 | 09-Feb-09 | Thor Exploration | 100% | 115P/14 |
| TP 5 | YB48044 | 09-Feb-10 | Thor Exploration | 100% | 115P/14 |
| TP 6 - 8 | YB48045 - YB48047 | 09-Feb-09 | Thor Exploration | 100% | 115P/14 |
| | | | | | |

Source: Yukon Energy, Mines and Resources

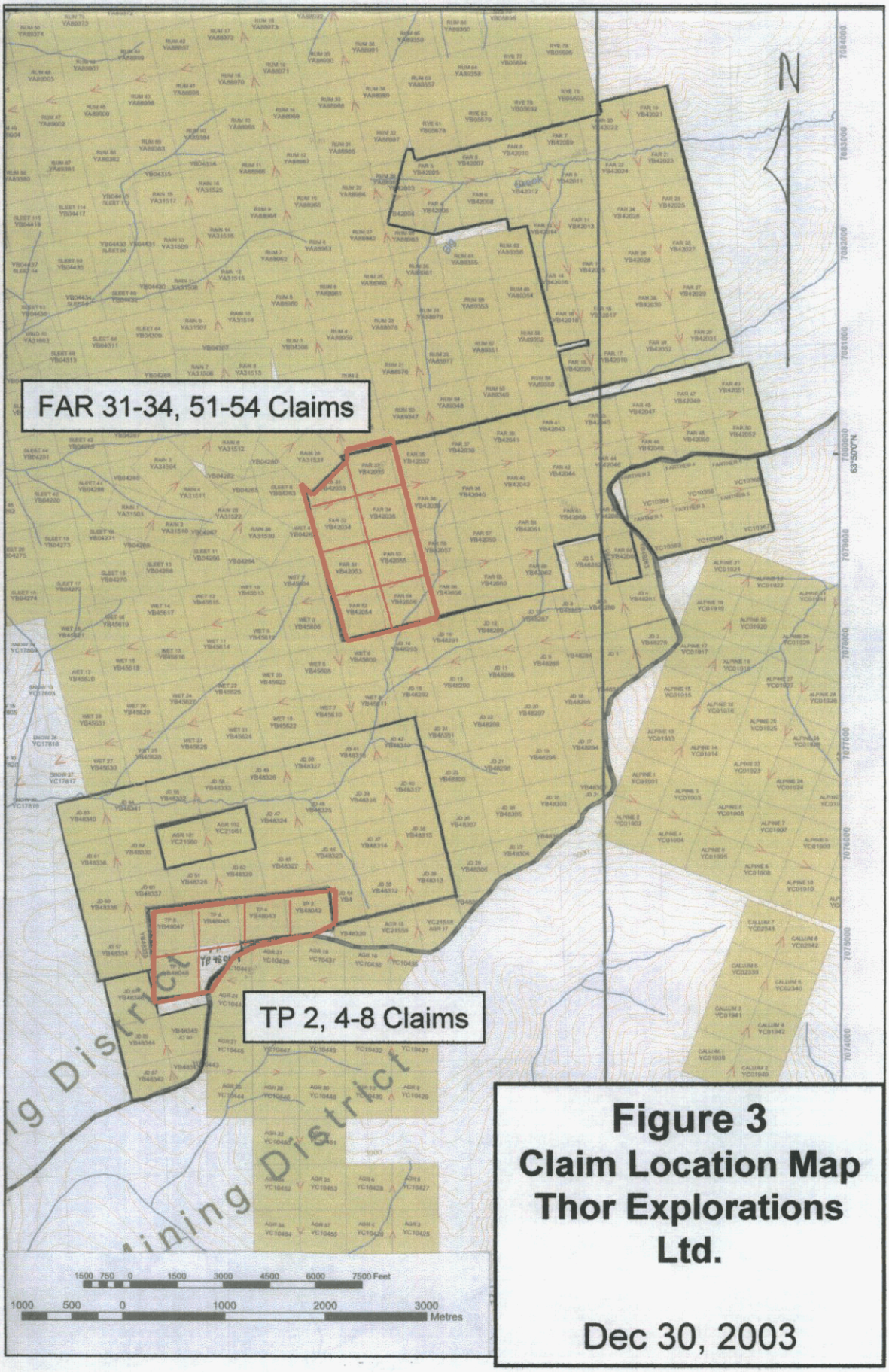



**Figure 3**
**Claim Location Map**
**Thor Explorations Ltd.**

Dec 30, 2003

The Far 31 – 34 claims are underlain by the southeastern margin of the Rhosgobel Stock, which hosts the "Rhosgobel Zone" of gold mineralization somewhat northwest of the claim block. This zone reportedly hosts a resource of 40 million tonnes grading 0.3 g/tonne gold, although this estimate may not be in compliance with currently accepted resource definitions. A second zone, the South Rhosgobel tungsten – gold zone, along the south margin of the stock, extends onto north-western portions of the FAR 31-64 block. No significant mineralized zones have been outlined on the TP or JD blocks. No mineral reserves or resources have been currently defined within property boundaries; nor are there any hard rock mine workings, tailings ponds, waste deposits, or other improvements or important natural features. Past placer mining excavations may extend along Clear Creek onto the extreme western portions of the JD claim block. To the author's knowledge, there are no environmental liabilities within project boundaries, which have not undergone legal surveys.

No exploration permits were obtained as the small amount and limited impact potential of planned exploration did not necessitate acquisition of such.

All claims comprising the FAR-TP project are 100% owned by Thor Exploration Ltd. There are no agreements regarding royalties, back-in rights or "Net Smelter Returns" or other agreements or encumbrances pertaining to the project.

## 3.0 Access, Physiography and Climate

The Far claim block covers fairly rugged unglaciated terrain, with elevations ranging from 1150 metres (3800 feet) to 1800 metres (5900 feet). Much of the property extends above the tree line at roughly 1450 metres, where it is covered by sparse tundra vegetation; steep slopes are covered by felsenmeer (broken outcrop and rubblecrop) with little vegetation. Forested areas consist mostly of black and white spruce. The TP claims cover somewhat more gentle terrain, ranging in elevation from 1125 metres (3700 feet) to about 1350 metres (4400 feet). Areas above 4100 feet are covered by tundra vegetation, including deciduous scrub; forested areas below this consist of stunted black and white spruce. Similar vegetation covers the JD claims, with a comparable tree line elevation.

The climate is sub-arctic continental, with short, mild summers and long, very cold winters. Precipitation is fairly light, totaling less than 50 cm per year; however, long winters result in accumulations of up to one metre of snow by spring thaw. The exploration season extends from early June to mid-September.

Access during the year-2003 program was by helicopter, based at Dawson City. However, road access is available from the Klondike Highway near Barlow Lake to slightly upstream of an abandoned dredge located near the head of placer workings along Right Clear Creek within the JD claim block. The south boundary of the FAR 31-64

block is located about 2.5 km northeast of the road terminus; the north boundary of the TP claim block extends about one kilometer to the south.

The project area is located about 50 road kilometers from the all-weather, paved Klondike Highway, and about 140 road kilometres from Dawson City, Yukon. This is a full-service community, with a permanent population of 2,100, regular commercial air service and a well developed industrial base serving the Klondike and Clear Creek placer mining districts. Hydro-electric service extends from the Village of Mayo to Dawson City, roughly along the Klondike Highway. The Village of Mayo, population about 450, is located to the east-southeast, roughly 175 road kilometers from the property. The Klondike Highway extends to Whitehorse, in turn connected by good all-weather highways to southern Canada.

Water is fairly abundant in the property area, from tributaries of the upper reaches of Clear and Fortymile Creeks. Both of the Far claim blocks and the contiguous TD/JB claim blocks are large enough to host sites for potential tailings disposals, heap leach sites (if applicable), major mine workings and processing plants. The JD 2 claim is too small to support these improvements.

## 4.0 History

Placer mining began in the Clear Creek area towards the close of the 19th Century, with staking of numerous quartz claims and small mine workings occurring in the early 1900s. From 1943 to 1954 a dredge operated along Clear Creek, with undisclosed gold production. Dredging also occurred from 1961 through 1964 with declared production of 2,408 oz gold (Joy & Vantassell, 1971).

The first major quartz staking in the area now covered by the FAR claim blocks occurred in March 1971 when United Keno Hill Mines staked the NOP 1-10 claims partially covering the Rhosgobel stock (Yukon Minfile, 2003). Subsequent surface exploration identified a northwest-southeast trending zone of scheelite-bearing quartz veins within the stock (Joy & Vantassell). In July 1971 a joint venture between Canada Tungsten Mining Corporation Ltd. and the Standard Oil Company staked the RHOSGOBEL claims to the northwest largely covering the stock. Later that year, Silver Standard Mines Ltd. staked three groups of WR claims to the southeast and northwest (Yukon Minfile). Tungsten was the main commodity targeted during this episode of exploration.

In 1978, A. Thom staked the RAIN 1-30 claims covering much of the Rhosgobel stock, and D. Hutton staked the BEE 1-16 claims slightly to the east, and the WIND claims to the northwest (Yukon Minfile). In 1979, the Cortin Project, consisting of CCH Resources Ltd., Inco Ltd and Billiton Exploration Canada Ltd. staked the JUBJUB 1-32 claims adjoining the east margin of the BEE and RAIN blocks. The Cortin Project returned anomalous silver values from gossanous scree associated with quartz-arsenopyrite veins in the "West Ridge Area" (Woodsend, 1981).

In 1981 Canada Tungsten Mining Corporation Ltd optioned the BEE and RAIN blocks and staked the CC 1-860 and SLUGGO 1-20 claims covering a large area containing the present FAR, JD and TP claims. A subsequent surface exploration program targeted tungsten and tin mineralization, and outlined an east-west trending zone of scheelite and arsenopyrite-bearing quartz stockwork mineralization roughly 800 metres long by 200 – 400 metres wide. Random sampling of quartz-arsenopyrite veining returned gold values from 0.112 to 1.313 g/tonne (Rainbird & Kelly, 1981). The program also revealed a quartz vein stockwork zone within the Pukelman stock to the north. Several rock grab samples returned gold values from 0.020 to 0.882 oz/ton gold with sub-economic tungsten values. A soil line between the two stocks returned an average gold value of 300 ppb across 850 metres, with values ranging from 30 to 1540 ppb gold (Rainbird & Kelly). The option on the Bee and Rain claims was discontinued following the program.

In 1984 the RAIN claims were transferred to N. Harper who conducted trenching from 1984 to 1988. In October 1987, Blackstone Placer Mining Ltd. and N. Harper surrounded the remaining five WIND claims by 125 SLEET claims (Yukon Minfile). Late in 1992 Ivanhoe Goldfields optioned all claims in the area, and in 1993 conducted soil geochemical surveys across the Rhosgobel stock and staked the WET 1 – 28 claims to the south. Ivanhoe was acquired by First Dynasty in 1994 (Yukon Minfile).

The FAR 1-70 claims were first staked in May 1993 by B. Lueck and R. Wongda. The blocks were optioned by Farallon Resources Ltd that carried out reconnaissance sampling before dropping the option (Yukon Minfile). In March 1994 Lueck staked the TP 2, 4-8 and JD 1-91 claims. Later that year Lueck conducted grid soil sampling across the FAR 31-34 claims, outlining a strong gold-arsenic anomaly, measuring about 800 by 300 metres, open to the east, covering the southeastern extreme of the Rhosgobel stock. Gold values ranged from background to 306 ppb. Along strike to the west, anomalous gold values may coincide with anomalous tungsten values outlined by Cantung (Lueck, 1994). Lueck also conducted soil sampling across the TP claims, obtaining spotty anomalous gold-arsenic values ranging from background to over 100 ppb (Lueck).

In December 1994 Mr. Les Hart re-staked the JD 33 - 64 and 87 – 91 claims and the FAR 1-64 claims; in September 1995 the JD 1-32 claims and the JD A claim were transferred to Mr. Hart.

In June 1995 the Clear Creek area claims, including the RAIN, SLEET and WIND blocks were optioned by Kennecott Canada Inc (Yukon Minfile). The company conducted a 27-hole, 1970.5-metre reverse-circulation program across the central Rhosgobel stock, targeting the previously outlined anomaly. A resource of 40 million tones grading greater than 300 ppb gold was outlined, with a high-grade core of 2 million tones grading greater than 1 g/tonne gold (Yukon Minfile). This resource occurs just northwest of the FAR 31-64 block. This author cannot confirm if resource estimates were based on currently accepted resource definition standards. Kennecott dropped its option in November 1995.

In May 1997 New Millenium Mining Ltd, a wholly owned subsidiary of First Dynasty, became the operator of the Clear Creek area claims. In 1998 Newmont Exploration Ltd entered into an option agreement with New Millenium on the CC, DUM, RAIN, RUM, RYE, SLEET, WET and WIND claims, west of the FAR 31-64 block (Yukon Minfile). Newmont carried out airborne and radiometric surveys across the entire block, and geological mapping, rock and soil sampling across much of the property in 1998.

In 1999 Redstar Resources Corporation entered into an option agreement with Newmont on the Clear Creek claim groups. Redstar drilled two diamond drill holes in 1999 and nine further holes in 2000 at the "Bear Paw Zone" on the SLEET 18 and 20 claims roughly three kilometers west of the FAR 31-64 block. Significant mineralization was intersected in all holes, ranging from 1.03 g/tonne across 1.50 metres to 2.30 g/tonne gold across 31.81 metres (Redstar News Release, Oct 18, 2000). Redstar described mineralization as intrusive related, occurring within sediment-hosted breccia zones, as well as within narrow calc-silicate (skarn) horizons. Redstar dropped its option in 2002 (Yukon Minfile).

# 5.0 Geology

## 5.1 Regional Geology

The FAR, JD and TP claim blocks are located within the Selwyn Basin, a thick sequence of shelf and off-shelf sedimentary and lesser volcanic strata along the margin of the Mackenzie Platform to the northeast (Gordey and Anderson, 1993). Clastic sedimentary strata were deposited from late Precambrian to Triassic time, primarily within subaqueous environments during various episodes of uplift, separated by intervals of deposition of chemical and fine clastic sediments during periods of relative quiescence. During the early Late Cretaceous period, the 91 MA Tombstone Plutonic Suite, part of the Tintina Gold Belt, intruded the Selwyn Basin stratigraphy as well as Yukon-Tanana Terrane stratigraphy to the west. These are S-type felsic intrusions derived from crustal melting, and form an arcuate belt of intrusions extending east-southeast from the Fairbanks area to the Yukon-British Columbia border, near the Yukon-Northwest Territories border. A second intrusive suite, the Late Cretaceous – early Tertiary McQuesten suite, extends east-west along the southern margins of the Clear Creek area. Age dating of one member of this, the Vancouver Creek stock southeast of the project area, returned a date of 65.8 MA (Lueck, 1994).

The Clear Creek area is underlain by Upper Proterozoic to Lower Cambrian Hyland Group, Yusezyu Formation sediments consisting largely of pelites, psammites, coarse clastic "grits" and quartzites, with lesser limestone and marble, calcareous clastic sediments and chemical sediments mixed with a clastic component. This has been intruded by a cluster of Tombstone Suite stocks, including, from south to north, the Rhosgobel, Big Creek (east of the Rhosgobel) Pukelman, Josephine and Eiger stocks. The upper boundary of the "Tombstone Strain Zone", a broad zone of complex

deformation, resulting in multi-episodic folding and prominent foliation and lineation development within the sediments, extends roughly east-west just north of the Josephine stock (Murphy and Heon, 1996).

Four major lithological subtypes have been identified within the cluster of Tombstone Suite intrusions. These may reflect separate emplacement events of varyingly fractionated magma from a single parent source at depth, as all stocks are roughly the same age and are contained within a single large zone of hornfelsing (Murphy, 2003, pers comm). Lithologies consist of diorite, comprising the Josephine and Big Creek stocks; granodiorite, comprising the Eiger stock; quartz monzonite, such as the Rhosgobel and Pukelman stocks; and granitic units, occurring largely as southern and western portions of the Rhosgobel Stock, and as apophyses of it (Stephens, 2003, after Murphy, 1997 and Marsh, 1999).

The McQuesten Suite intrusions, including the Vancouver Creek stock, are mostly of biotite +/- muscovite granite to quartz monzonite in composition, are medium to coarse grained, and locally porphyritic and potassium-feldspar megacrystic (Murphy and Heon, 1996). Valley floors of larger streams throughout the area are covered by unconsolidated Quaternary sediments.

## 5.2 Property Geology

The project area is underlain mostly by Yusezyu Formation metasediments exhibiting multi-episodic deformation resulting in a fabric of pervasive foliation and several styles of folding. Portions of the FAR 31 and 33 claims are underlain by quartz monzonitic and granitic dykes and apophyses along the southeast margin of the Rhosgobel stock (Map 1). The Big Creek stock underlies east-central portions of the FAR 31-64 claims and part of the FARTHER 1-6 block (Fig 4).

Stephens et al (2003) have divided the hornfelsed aureole into two zones: an inner aureole of contact metasomatism with skarn development, strong foliation and a strong contact metamorphic overprint of biotite-andalusite; and an outer aureole characterized by a contact metamorphic overprint of biotite and andalusite.

The year-2003 program focused only on the FAR 31-34 and 51-54 claims and the TP claims, with limited mapping due to time constraints and snow cover. Mapping of the FAR block revealed that the contact between the inner and outer aureoles extends east-west across claim FAR 51; further to the east it trends southwest-northeast across claim FAR 34 (Map 1). The limit of the outer aureole extends east-west across the north boundary of claims FAR 52 and 54. Most exposures of sediments were mapped as quartzites with lesser psammites, although mapping also revealed a quartz diorite pegmatitic dyke exposure just within the inner aureole, and an exposure of limy psammite interpreted to extend northeast-southwest just to the south of this within the outer aureole. Foliation and vein orientations range from east-west to east-northeast –

west-southwest, and are dominantly gently to moderately north dipping, steepening to sub-vertical near the intrusion margins.

Year-2003 mapping of the TP claims revealed a small unit of bedded limestone, interpreted as northeast-southwest oriented, within west-southwest striking, gently north-northwest dipping phyllite and limy phyllite Map 1). A pervasive west-southwest striking, gently north-northwest dipping foliation was identified both in year-2003 and earlier mapping. This is commonly bedding-parallel, although south-southeast and south-southwest striking, west dipping bedding measurements were noted along a ridge just south of the claims, suggesting hectometer-scale folding.

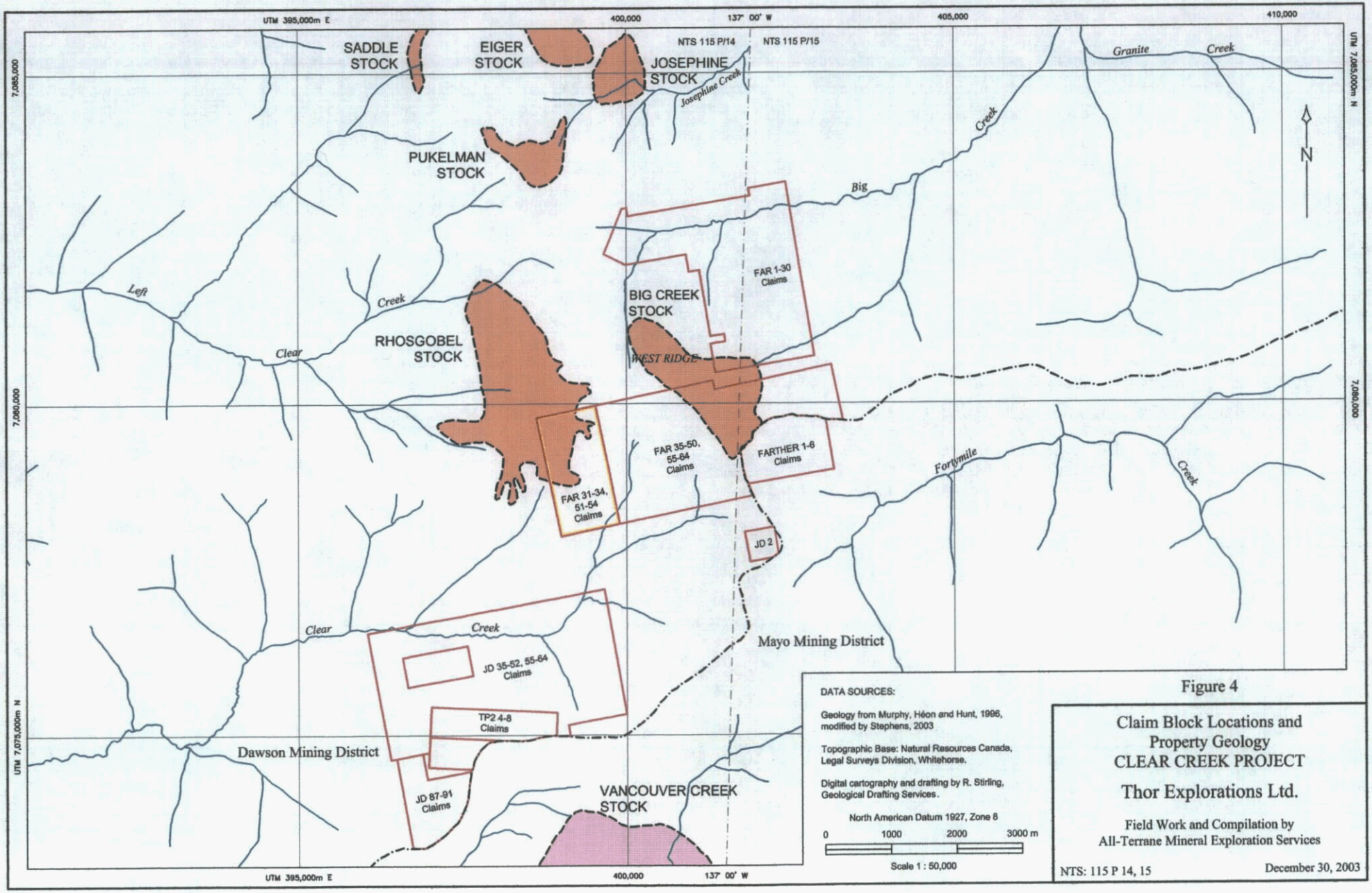
### 5.3. Structural Geology

Yusezyu Formation sediments extend roughly east-west, and dip shallowly to the north. To the north of the intrusive cluster, Yusezyu Formation sediments lie in roughly east-west contact with a sequence of Selwyn Basin sediments younging progressively to the north, ranging from Rabbitkettle Formation, through Road River Group into Earn Group strata. This sequence forms the south limb of the east-west extending Lost Horses Syncline, roughly 15 kilometres north of the project area. Foliation measurements across the area, although generally north-dipping, are more variable than bedding measurements, indicating multi-episodic deformation events.

Lueck stated that the Yusezyu Formation metasediments underlying the project area occur along the north limb of the McQuesten River anticline, trending at roughly N 70° E, and plunging from 10° to 20° to the northeast (Lueck, 1994).

Stephens et al (2003) has determined through mapping and structural interpretation that kilometric-scale faults and "fracture zones", all steeply dipping, occur along three major orientations in the Clear Creek area: north-northwest – south-southeast; east-southeast – west-northwest, and northeast – southwest. The NNW – SSE trending faults generally have sinistral separations of 1 – 100 metres (Stephens et al, 2003). These are interpreted to form a large part of the west contact of the Rhosgobel stock, as well as the west boundary of granitic apophyses to the south, suggesting emplacement of these postdated faulting. The east-west striking lineaments are largely extensional faults with little or no displacement; these host the "major set" of gold bearing quartz veins. Almost all intrusion-hosted auriferous veins strike east-west along this lineation (Stephens et al). The NNW – SSE trending lineation is dominant west of the project area, and hosts only rare veins.

Mineralized veins within country rock occur in three major orientations: 1) east-west striking and steeply dipping, identical to intrusive-hosted vein orientations; 2) partly foliation concordant, gently to moderately north dipping; and 3) NNW – SSE-striking vein/ breccia zones, such as the Bear Paw breccia drilled by Redstar Resources (Stephens et al).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Granite Creek
PUKELMAN STOCK
Big Creek
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BIG CREEK STOCK
WEST RIDGE
FAR 1-30 Claims
FAR 35-50, 55-64 Claims
FARTHER 1-6 Claims
FAR 31-34, 51-54 Claims
JD 2
Fortymile Creek
Clear Creek
JD 35-52, 55-64 Claims
TP2 4-8 Claims
JD 87-91 Claims
Mayo Mining District
Dawson Mining District
VANCOUVER CREEK STOCK
DATA SOURCES:
Geology from Murphy, Héon and Hunt, 1996, modified by Stephens, 2003
Topographic Base: Natural Resources Canada, Legal Surveys Division, Whitehorse.
Digital cartography and drafting by R. Stirling, Geological Drafting Services.
North American Datum 1927, Zone 8
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Scale 1 : 50,000
Figure 4
Claim Block Locations and Property Geology
CLEAR CREEK PROJECT
Thor Explorations Ltd.
Field Work and Compilation by
All-Terrane Mineral Exploration Services
NTS: 115 P 14, 15
December 30, 2003

Year-2003 mapping identified abundant centimeter-scale, foliation and bedding-parallel early white quartz veining, commonly boudined, particularly in the TP claim area. "Z-fold" kink banding was observed locally. These fabrics indicate three of the four previously identified episodes of deformation, where an initial pervasive foliation was followed by two episodes of folding, culminated with development of kink banding (Rainbird & Kelly).

## 6. Deposit Types

The Clear Creek area displays a potential deposit setting typical of the Tombstone Plutonic Suite. In this setting, S-type magmas, derived from crustal melting, were emplaced at relatively high crustal levels, resulting in formation of felsic, coarse-grained, dioritic to granitic units, commonly quartz-monzonitic and megacrystic. As cooling continued, progressive fractionation resulted in concentration of "economic" metal ions, such as gold, silver, tungsten and copper, together with arsenic, antimony and other "pathfinder" elements within remaining fluid phases, now also strongly enriched in water and volatile gases. This metal enrichment and geochemical signature is typical of intrusions throughout the larger Tintina Gold Belt. Hot metal-enriched water-based fluids, commonly exceeding 300°C, are called "hydrothermal fluids"; fluids with a large volatile gas component are called pneumatolytic fluids.

"Country rock" surrounding a magma intrusion is commonly fractured and buckled, resulting in increased permeability for fluid flow. Fault, fracture and breccia zones are also areas of increased permeability. The hydrothermal fluids concentrated during late stages of cooling tend to migrate outbound from the intrusive stock along permeable horizons, including fault and fracture zones. As these fluids cool, metal ions tend to combine with sulphur ions, forming "sulphide minerals". These are progressively deposited along walls of permeable zones, forming vein, stringer and stockwork –hosted mineralization, depending on the original dimensions and style of open space formation. Hydrothermal vein - stockwork zones constitute a major potential deposit setting in the Clear Creek area.

Hyland Group, Yusezyu Formation sediments commonly contain limestone, silty limestone and other members with a significant calcareous component. Hydrothermal fluids are commonly acidic, and will dissolve the calcareous component of these units, and subsequently replace them with silica-based mineralization, commonly metal-enriched. This is referred to as a "replacement-style" deposit setting. The Carlin-style gold deposits of Nevada are a sub-type of this setting.

A similar setting is that controlling formation of "skarns". Most typically, a skarn will form when a magma chamber has intruded directly into impure limestone or mixed clastic and calcareous sediments. The hydrothermal fluids migrate into the reactive sediments, forming "calc-silicate" minerals from chemical reactions between silica within

the fluids and the calcium from the country rock. These are commonly associated with significant amounts of metal-bearing "economic" minerals. This setting can form within marginal regions of the intrusion itself if intrusive rocks are also reactive; "endoskarns" occur within the intrusion, and "exoskarns" form in the adjacent country rock. The Clear Creek area has strong potential to host tungsten, gold, and copper-gold skarns.

These settings are referred to as "intrusive-related" deposit settings. The Tombstone Plutonic Suite has recently been shown to contain numerous "intrusive-hosted" bulk tonnage gold deposits, referred to as "Fort Knox"-style deposits, after the namesake Fort Knox gold deposit in Fairbanks. These are formed during the cooling stages of the now solidified magma, most commonly resulting in "quartz monzonite" intrusions. As cooling progresses, the rock contracts, resulting in a set of narrow, roughly parallel, open space fissures. Remaining gold-enriched hydrothermal fluids are subsequently emplaced within these, forming sheeted auriferous veins associated with "pathfinder" sulphide mineralization. Most of the gold is concentrated in the high grade veins, which may comprise roughly 10% of the entire rock mass. However, the entire rock mass must be extracted, thus these tend to be large tonnage, low grade open pit deposits.

Gold in many Fort Knox-style deposits can be liberated from ore through "heap leaching" whereby cyanide enriched fluids are sprayed upon a large volume of crushed rock. The gold binds with the cyanide, and the "pregnant solutions" are then subject to an "electrowinning" process, where gold is electroplated and removed from the solution. This has been proven effective in northern climates. Thus, gold deposits grading slightly less than 1.0 g/tonne can be economically viable, given favourable location, infrastructure, and deposit size.

## 7. Mineralization

To date no significant mineralized zones have been delineated across the project area. Past work focused on soil sampling on the FAR 31-34 and TP claims, outlining a gold-in-soil anomaly on the FAR claims, and sporadic anomalous gold values on the TP claims. Conditions in 2003 prevented proper identification of mineralized zones, and analysis of mineralization remains speculative. Essentially, the FAR 31-34 claims are underlain by sedimentary rocks that have undergone strong contact metamorphism and metasomatism (hornfelsing). Plausible mineralized settings include skarn, vein, stringer and stockwork zones, and replacement horizons. Elevated combined gold-tungsten values obtained during the year-2003 program suggest the presence of sediment-hosted auriferous scheelite-bearing veins, with minor gold-tungsten skarn mineralization. Anomalous gold values are associated with elevated arsenic and mercury, typical pathfinders elements of Tombstone Suite hydrothermal systems. Elevated bismuth values suggest close proximity to the Rhosgobel stock.

Potential mineralization underlying the TP claims is likely sediment-hosted, although small dykes were reported by Lueck. A single-sample gold-in soil anomaly of 0.326

g/tonne obtained in 2003 is associated with elevated lead, zinc, and antimony, but near-background arsenic and background bismuth and tungsten. The geochemical signature of samples throughout the TP claims is more subdued than for the FAR claims, although some samples returned weakly anomalous gold values. This suggests no major intrusive bodies close to the claims, with the aforementioned anomalous gold value originating from more distal lead-zinc enriched vein or stockwork systems more distal from the intrusive margins.

The auriferous tungsten-enriched quartz vein and stockwork zone delineated by Kennecott across the centre of the Rhosgobel Stock may be a Fort Knox-style deposit. Anomalous gold-tungsten values along the granitic phase along the south margin of the Rhosgobel stock could represent several deposit settings, including peripheral Fort Knox-style, skarn or hydrothermal stockwork zones. Sediment-hosted mineralization is likely responsible for the strong gold-in-soil anomaly between the Rhosgobel and Pukelman stocks.

# 8.0 Exploration

## 8.1 Year-2003 Results

The year-2003 program consisted of a one-day visit by a four-person crew, divided into two 2-person teams of a geologist and technician, targeting the FAR 31-34, 51-54 claims and TP 2, 4-8 claims respectively. Each crew conducted geological mapping and prospecting, limited rock sampling, and B-horizon soil sampling at 50-metre station intervals where possible. Station spacing on the TP claims was extended to 100 metres to cover the entire block. A total of 2 rock and 14 soil samples were obtained from the FAR block, and one rock and 20 soil samples were obtained from the TP claims.

Soil sample results on the FAR claims indicate a 100-metre long gold anomaly within the FAR 33 and 34 claims, with values of 0.194 and 0.067 g/tonne respectively, associated with anomalous arsenic and tungsten values, the latter to 200 ppm (Map 2). These are also associated with weakly anomalous bismuth and mercury values, which extend somewhat farther to the southwest. Elevated bismuth values indicate proximity to the Rhosgobel Stock. These results suggest a gold-tungsten source uphill from the soil anomaly, possibly a gold-tungsten vein stockwork zone near the margin of the stock. The restricted anomaly size suggests a source of limited extent. Sampling further southwest returned low gold and weakly elevated silver and tungsten values.

Soil sample results from the TP block show a weak gold anomaly of 0.033 g/tonne, with no notable anomalous pathfinder values, on the TP 2 claim. However, a value of 0.326 g/tonne gold was returned from a sample on the TP 8 claim, with elevated silver, lead and zinc values of 0.9 g/tonne, 75 ppm and 198 ppm respectively, and an elevated antimony level of 4 ppm. This is more typical of lead-zinc hydrothermal vein systems, although the gold values are disproportionately high, suggesting a gold occurrence with accessory

base metal pathfinder association. Significantly, the sample spacing was 100 metres; thus this anomaly may represent a system of significant size. The sample was taken fairly close to the ridge line, in very gentle terrain sloping downwards to the north, in areas of timberline scrub vegetation with fairly good soil development (Appendices 2, 3). The local environment tends to restrict dispersion resulting in more subdued anomalous values, compared to that of the FAR claims soil survey, where the anomaly was returned from steep terrain and sparse vegetative cover, where dispersion effects and greater rock exposure may produce higher values from a comparable source.

Rock sampling returned low to background gold, copper, tungsten and pathfinder element values. These were taken from early boudined unmineralized quartz veins, and from a pegmatitic vein within a small quartz diorite unit. The only noteworthy geochemical signature was obtained from the single TP-block sample, which returned an anomalous mercury value of 1 ppm. Exposure was limited due to snow cover; therefore these results do not confirm an absence of significant mineralization occurs.

### 8.2 Personnel

The following personnel participated in the year-2003 exploration program:

| | |
|---|---|
| Carl Schulze, BSc, PGeo: | Project Geologist and Qualified Person |
| Julian Stephens, MSc: | Assistant Geologist |
| Heiko Mueller: | Field Technician |
| Craig Tervit: | Field Technician |

## 9.0 Sampling Method and Approach

All geochemical sampling was subject to rigorous parameters, including detailed descriptions of each sample. Rock samples were obtained using a 22-oz Estwing rock hammer, and located in the field using a non-differential Global Positioning System (GPS) instrument. Samples were placed in plastic bags designed specifically for rock sampling. A tag with the unique sample number, supplied by ALS Chemex Labs, was placed in the bag; the sample number was written on both outsides of the bag in "Magic Marker". The sample number was also written on Tyvex Tags using grease pencils and attached to the sample location in the field.

Rock samples were recorded as to location (UTM - NAD 27 Canada) sample type (grab, composite grab, chip, etc), exposure type (outcrop, rubblecrop, float, etc.), formation, lithology, modifier (for textural or structural descriptions), colour, degrees of carbonate presence and silicification, other alteration, economic mineralization including estimated amounts, date, sampler and comments (Appendices 2 and 3). Minimum weight of rock samples was 0.25 kg, although samples tend to be larger than this.

Soil samples were taken at regular 50-metre or 100-metre intervals along lines established by compass and "hip chain", and marked with orange flagging tape. Sample numbers supplied by ALS Chemex Labs were written in grease pencil on a Tyvex tag, tied onto vegetation and marked by both orange and blue flagging at the sample site. Samples were placed in kraft bags, with a Tyvex tag supplied by ALS Chemex showing the unique sample number placed in the bag, and the sample number written in "Magic Marker" on both sides of the bag. The bags were then dried as much as possible before shipping. Samples were preferably taken of B-horizon material, although sampling of A or C horizon soil was done where B-horizon material was unavailable. Minimum original sample weight was 0.25 kg.

All samples were described as to station location (UTM coordinates were taken of numerous samples to accurately locate traverse location), horizon, depth of sample, slope angle, colour, percent coarse fragments, surrounding vegetation, surficial lithology, fragment lithology, percent organics, date, sampler and comments. If a particular parameter could not be determined, particularly fragment lithology, no record was attempted.

Variability in results of soil sampling may be caused by depth of overburden, slope angle, and outcrop exposure, with lower values expected in flat areas with thick overburdenthan in steep terrain with good rock exposure. Year-2003 results suggest that anomalous gold values delineated on the TP claims may represent higher bedrock gold concentrations than similar values on the FAR claims.

Field data was entered into Microsoft Excel spreadsheet format, and later matched with analytical results. This process was continually re-checked to ensure correct results are associated with descriptions.

The author cannot verify the adequacy and quality of historical sampling, sample preparation, security and analytical procedures, for work performed before 2002. No descriptions were included in any past records, and the author was not involved in past exploration.

## 10.0 Sample Preparation, Analysis and Security

All rock samples were placed in thick plastic industry standard sample bags, sealed with thick plastic serrated "Zap Straps" and sent in a similarly sealed rice bag to ALS Chemex Labs of North Vancouver, B.C., a certified analytical laboratory. Sealed rice bags were personally handed to the courier, Greyhound Bus Lines, by the qualified person, and were delivered by the courier directly to ALS Chemex. All rock samples were crushed to ensure that a minimum of 70% of the material was less than 2.0 mm in size; this material was thoroughly mixed. From this, a 250g sample was pulverized to 75-micron size; then a 50-gram sample of this underwent fire assay analysis with atomic absorption finish. This technique provides gold analysis ranging from 0.005 to 10.0 g/t gold; samples

exceeding these values (overlimits) were re-analyzed by 30-gram gravimetric finish. No samples obtained during this program exceeded 10.0 g/tonne gold.

All soil and silt samples were screened to 180-micron size (minus-80 mesh); the fine fraction then underwent gold analysis by 30-gram fire assay with ICP – AES finish, providing a detection limit of 0.001 g/tonne.

All samples ere also analyzed by 34-element ICP to test for abundances of Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Ti, Tl, U, V, W and Zn.

ALS Chemex provides comprehensive in-house quality-control, using numerous blanks to test for any potential contamination, confirming that no detectable contamination has occurred. ALS Chemex also conducted repeated in-house standard sampling for all 34 elements involved in ICP analysis and gold to determine accuracy of analysis. The lab also incorporated more limited analysis of standard samples with known element concentrations provided by several outside firms.

## 11.0 Data Verification

Past exploration on the FAR and TP blocks was limited, with systematic soil sampling conducted only across the FAR 31-34 claims and portions of the TP block. The year-2003 program covered much of the same area; thus some preliminary and rough data verification is possible.

At the FAR claim block, the upper portion of the traverse, where anomalous gold, arsenic and tungsten values were returned, covers the eastern portions of the gold-arsenic anomaly delineated by Lueck in 1994, indicating approximate repeatability, and thus reliability, of year-1994 results.

At the TP block, the pattern of spotty weak gold-in-soil anomalies was roughly repeated, indicating that results obtained in 1994 are reliable. The year-2003 program delineated an anomalous value considerably higher (0.324 g/tonne gold) than any noted in 1994, although one year-1994 value exceeded 100 ppb gold. This year-2003 value is supported by anomalous pathfinder values, and may be considered reliable.

Actual year-1994 sites were not located and retested, due to time constraints on the program. The year-2003 program confirmed the existence of anomalous zones, rather than of individual anomalous values.

All due diligence work was instructed by and supervised by Carl Schulze, BSc, PGeo, the qualified person for the project.

No mineral processing or metallurgical testing was done during this program. Also, no mineral resources or reserves have been delineated to date.

# 12.0 Interpretation and Conclusions

## 12.1 Interpretation

Exploration to date is insufficient to confirm the presence and style of mineralized zones across the FAR 31-34, 51-54 and TP claim blocks. However, the geochemical surveys and associated results are sufficient to suggest potential settings of mineralization.

### 12.1.1 FAR claim block

The traverse-style soil sampling delineated a 100-metre gold anomaly averaging 0.131 g/tonne gold, ranging from 0.067 to 0.194 g/tonne gold (Appendix 3), associated with anomalous arsenic and tungsten values averaging 420 ppm and 125 ppm respectively. Results also indicate elevated bismuth and weakly elevated titanium values; however calcium content is not elevated. Iron and sulphur values are not significantly elevated, suggesting anomalous metal values are not associated with high sulphide concentrations; this may be a low-sulphidation environment. Elevated bismuth values represent proximity to an intrusive stock, notably the Rhosgobel stock, located directly to the northwest. Slightly elevated titanium may result from dispersion of intrusive material from a titanium-enriched stock. Background calcium values suggest that significant skarn-style mineralization is likely absent, although limited calc-silicate associated mineralization associated with the metasomatized inner hornfels aureole may occur.

The most likely mineralized setting is that of auriferous hydrothermal quartz veins enriched in arsenic and tungsten proximal to, and emanating from the Rhosgobel stock. The amount of structural preparation, including fracture and breccia zones, is likely high, due to buckling of country rock near the stock, and of property-scale faults in the area. Thus, vein mineralization may also occur as quartz stringer or stockwork zones. However, the anomaly identified in 2003 was fairly localized within a high-dispersion environment, suggesting a source area of limited extent. Soil geochemical results obtained by Lueck in 1994 identified numerous gold anomalies, suggesting numerous mineralized zones within an auriferous trend, apparently extending to the east beyond the 1994 grid. This also appears to be contiguous with the "South Rhosgobel tungsten-gold zone" previously identified to the west.

### 12.1.2 TP claim block

Year-2003 results from the TP block identified a weak gold-in-soil anomaly of 0.033 g/tonne on the TP 2 claim, and a much stronger anomaly of 0.326 g/tonne gold to the

west on claim TP 8. Significantly, both are from areas of gentle relief fairly close to the ridge line; the former from a forested area with good soil development, and the latter from an area of scrub and some rubblecrop. Station spacing at the western anomaly is 100 metres, providing wide constraints of gold-in-soil mineralization. Weakly anomalous silver, lead and zinc values suggest mesothermal gold veining with accessory base metals, as opposed to "Keno Hill"-style lead-zinc-silver veining with accessory gold. The geochemical signature is distinct from that of the anomaly within the FAR 31-34 claims. This may represent distal hydrothermal mineralization further outbound from the Rhosgobel stock, and suggests the presence of mineral zonation in the Clear Creek area.

### 12.1.3 Mineral Potential Elsewhere

Very limited exploration has been reported elsewhere within present property boundaries. The property covers much of the Big Creek stock, with apparently untested potential for previously described intrusive-hosted or related gold mineralization. Mineral potential is good, as this stock is likely part of the same larger intrusion as the Rhosgobel and Pukelman stocks, thus having a similar original magmatic geochemistry.

A large intrusion underlying structurally prepared, permeable and potentially reactive sedimentary rock would have had the ability to cause metasomatism within overlying sediments and to be the source of metal-bearing fluids leading to formation of mineralized zones in these sediments. This is supported by the presence of a wide zone of hornfelsing surrounding all of the stocks within the cluster. Thus, the Yusezyu Formation sediments within the aureole between the Rhosgobel and Pukelman stocks have good potential for sediment-hosted gold and/or tungsten-bearing contact and distal skarn, vein or stockwork hydrothermal mineralization.

## 12.2 Conclusions

Year-2003 exploration across the FAR 31-34, 51-54 and TP 2, 4-8 claim blocks confirmed the presence of anomalous gold-in-soil mineralization first identified in 1994 by Lueck for Thor Explorations Ltd. Year-2003 soil sampling on the FAR 31-34 claims identified a 100-metre gold-tungsten anomaly averaging 0.131 g/tonne gold and 125 ppm tungsten. The source is likely to be a zone of gold-tungsten bearing quartz veins or stockwork, possibly with minor skarn enrichment, along or just outbound of the margin of the Rhosgobel stock. The source is likely of limited extent, although systematic sampling by Lueck revealed numerous anomalies, probably representing several mineralized source zones, likely extending to the east beyond surveyed areas. This also appears to be contiguous with the "South Rhosgobel tungsten-gold zone" previously identified to the west.

Year-2003 exploration on the TP 2, 4-8 claim block revealed a strong gold-in-soil anomaly of 0.326 g/tonne on the TP 8 claim. Associated weakly anomalous lead-zinc-

silver values suggest the source may be a mesothermal gold vein or stockwork zone. Wide sample spacing here places broad constraints of mineralization; subdued topography and fairly well developed soil suggests a potentially significant mineralized source zone. This may represent distal mineralization outbound from the Rhosgobel stock, thus suggesting mineral zonation in the Clear Creek area.

Significant exploration has not been reported across most of the Clear Creek project area, although good potential exists for intrusive-hosted or related mineralization in the Big Creek stock area. The Big Creek and Rhosgobel stocks are likely members of a larger subsurface intrusion, sharing the same broad hornfelsed aureole. Overlying Hyland Group, Yusezyu Formation sediments are prospective for skarn, vein and stockwork gold and/or tungsten mineralization.

# 13.0 Recommendations

## 13.1 Recommendations

A significant two-phase surface exploration program consisting of a first phase of reconnaissance-style traverses no more than 400-metres apart is recommended across the entire project area. This should begin as soon as conditions, including adequate thawing of soil horizons, permit. Each traverse should include systematic B-horizon soil sampling at 100-metre station spacings, with 50-metre spacings across the most prospective areas, such as margins of the Big Creek stock. At least one north-south traverse paralleling the east boundary of the 1994 grid on the FAR 31-34 claims is recommended. Traversing will also include geological mapping, prospecting, and rock and stream silt sampling where applicable. All samples should be analyzed for 50-gram fire assay and 34-element ICP analysis.

This phase should also include detailed follow-up geological mapping and rock geochemical sampling to determine sources of anomalies identified in 2003 on the FAR 31-34 claims and the TP 2 and 8 claims. The anomalous sample location on claim TP 8 should be re-sampled, and soil samples should be taken 50-metre to the east and west respectively along the line. Two parallel 300-metre long flagged lines 100 metres north and south respectively should be established, with soil samples taken at 50-metre intervals, to test for potential north-south extensions of the zone.

A second phase is recommended contingent on positive first-phase results. This would consist of establishment of cut grids across prospective areas identified from the first phase, with grid lines perpendicular to inferred mineralized and/or structural trends. Detailed geological mapping, prospecting, rock and silt sampling (where applicable) and soil sampling at 50-metre spacings are recommended across these grids. Surface magnetometer and electromagnetic geophysical surveys are recommended, depending on geological settings anticipated or encountered. This phase is designed to identify targets

for diamond drilling and should commence upon completion of first phase results interpretation.

Projected first phase expenditures total CDN$78,357.00. This assumes a four-person exploration crew camping on the property, with helicopter support for most of the projected 14 traverses, and includes pre-project preparation and post-project results-assimilation and plotting costs. This total also includes a 10% contingency. Planned project duration, including travel, mobilization and de-mobilization and two weather days, is 13 days.

Projected second phase expenditures total CDN$142,081.50. This assumes a 28-day program, including travel, camp set-up and tear-down, establishment of a 20-kilometre grid, magnetometer and electromagnetic surveys, and three weather days. This total also includes pre-project set-up, post-project digitization and report writing costs and a 10% contingency cost. The grand total projected cost of both project phases is CDN$220,438.00.

Both phases assume helicopter access to traverse sites, and helicopter support for camp mobilization and supply runs to grids and detailed surface exploration sites. If road access is available, including ATV access, exploration costs will decrease considerably.

## 13.2 Projected Expenditures, Proposed Year-2004 Program

All figures are in Canadian dollars.

| | | |
|---|---|---|
| Personnel: Geologists: | $14,150.00 | |
| Personnel: Assistants: | $ 5,950.00 | |
| Rock sample analysis: | $ 3,584.00 | |
| Soil and silt sample analysis: | $16,400.00 | |
| Groceries: | $ 1,320.00 | |
| Accommodations: | $ 800.00 | |
| Helicopter costs: | $21,600.00 | |
| Truck rental: | $ 2,160.00 | |
| Office gear: | $ 300.00 | |
| Field gear: | $ 300.00 | |
| Radio rental: | $ 300.00 | |
| Safety gear rental: | $ 180.00 | |
| Travel expenses, incl. fuel: | $ 830.00 | |
| Equipment, incl. expendables and camp fuel: | $ 1,000.00 | |
| Camp rental: | $ 1,200.00 | |
| Sample shipping: | $ 160.00 | |
| Lumber + minor supplies: | $ 1,000.00 | |
| Total: | $71,234.00 | |
| Total + 10% contingency: | $ 7,123.00 | |
| Total, Phase 1: | **$78,357.00** | **$78,357.00** |
| | | |
| Line Cutting: | $11,000.00 | |
| Personnel: Geologists: | $24,200.00 | |
| Personnel: Assistants: | $12,325.00 | |
| Rock sample analysis: | $ 8,960.00 | |
| Soil and silt sample analysis: | $19,000.00 | |
| Geophysics | $ 8,000.00 | |
| Groceries: | $ 3,480.00 | |
| Accommodations: | $ 800.00 | |
| Helicopter costs: | $17,600.00 | |
| Truck rental: | $ 2,880.00 | |
| Office gear: | $ 400.00 | |
| Field gear: | $ 400.00 | |
| Radio rental: | $ 700.00 | |
| Safety gear rental: | $ 420.00 | |
| Travel expenses, incl. fuel: | $ 720.00 | |
| Equipment, incl. expendables and camp fuel: | $ 1,000.00 | |
| Camp rental: | $ 2,800.00 | |
| Sample shipping: | $ 480.00 | |
| Expediting: | $ 3,500.00 | |
| Lumber + minor supplies: | $ 700.00 | |
| Digitization: | $ 5,000.00 | |
| Report Writing: | $ 4,800.00 | |
| Total: | **$129,165.00** | **$129,165.00** |
| Total + 10% contingency: | | $ 12,916.50 |
| Total, Phase 2: | | **$142,081.50** |
| | | |
| Grand Total: | | **$220,438.50** |

# 14.0 Bibliography

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# Appendix 1. Certificate of Author

I, Carl M. Schulze, PGeo, hereby certify that:

1) I am a self-employed Consulting Geologist and sole proprietor of:
All-Terrane Mineral Exploration Services
35 Dawson Rd
Whitehorse, Yukon Y1A 5T6

2) I graduated with a Bachelor of Science Degree in geology from Lakehead University, Thunder Bay, Ontario, in 1984.

3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC).

4) I have worked as a geologist for a total of 20 years since my graduation from Lakehead University.

5) I have read the definition of "qualified person" set out in 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 responsible for preparation of all sections of the technical report titled "Progress Report and Preliminary Results of the Year-2003 Surface Exploration Program on the Clear Creek Project, Thor Explorations Ltd." on the entire property area comprising the Clear Creek project. I was active on-site during the entire exploration program of one day on September 23, 2003.

7) I have not had prior involvement with the properties that are the subject of the Technical Report.

8) I am not aware of any material facts or material changes with respect to the subject matter of the technical report not contained within the report, of which the omission to disclose makes the report misleading.

9) I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

12) The effective date of this report is December 1, 2003.

Dated this 10th Day of December, 2003.

*"Carl Schulze"*

Carl Schulze, BSc, PGeo
Address: 35 Dawson Rd
Whitehorse, Yukon Y1A 5T6
Telephone: 867-633-4807
Fax: 867-633-4883
E-mail: allterrane@northwestel.net

# Appendix 1b

## Statement of Expenditures

### Statement of Expenditures: FAR 31-34, 51-54 Claim Block

| Geological Mapping | Geochem Sampling Labour | Rocks ($27.25 ea.) | Soils ($24.00 ea.) | Prep Work/ Report Writing | Sub-Total | Transportation Support (25% of Total) | Total Expenditures |
|---|---|---|---|---|---|---|---|
| $ 300.00 | $ 300.00 | $ 54.50 | $ 336.00 | $ 850.00 | $ 1,840.50 | $ 613.50 | **$ 2,454.00** |

### Statement of Expenditures, TP 2, 4-8 Claim Block

| Geological Mapping | Geochem Sampling Labour | Rocks ($27.25 ea.) | Soils ($24.00 ea.) | Prep Work/ Report Writing | Sub-Total | Transportation Support (25% of Total) | Total Expenditures |
|---|---|---|---|---|---|---|---|
| $ 400.00 | $ 150.00 | $ 27.25 | $ 480.00 | $ 850.00 | $ 1,907.25 | $ 635.75 | **$ 2,543.00** |

# Appendix 2: Geochemical Sample Descriptions

**Appendix 2a) Rock Sample Descriptions**
**Appendix 2b) Soil Sample Descriptions**

## Appendix 2a

**ROCK SAMPLE DESCRIPTION SHEET, CLEAR CREEK PROPERTY**
**THOR EXPLORATIONS LTD.**

Zone 8, NAD 27 Canada

| Sample No. | Easting | Northing | Sample Type | Width (m) | Sample Descr. | Form. | Lithology | Modifier | Colour | Carb. Presence | Silicification | Alteration 1 | Alteration 2 | Other Alt. | Mineral #1 | Amount (%) | Mineral #2 | Amt (%) | Other Mineral | Amt (%) | Date | Sampler | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M156451R | 399168 | 7079207 | G | | Oc | PrCh | Qzte | Vned | dgry | | | | | | | | | | | | 23/09/2003 | JS | FAR: Early boudined QzVein: S2 fabric at 231-39 |
| M156452R | 399223 | 7078714 | G | | Oc | Kgd | QzDior | Vned | dgry | | | | | | | | | | | | 23/09/2003 | JS | FAR: Pegmatitic vein-dyke in qz diorite |
| M157751R | 396960 | 7074960 | CG | | Oc | PrCh | Pfry | Vned | dgry | | S1 | Ph1 | | L1 | | | | | | | 23/09/2003 | CS | TP: 25% small early quartz veins - metamorphic? |

## Appendix 2b

**SOIL SAMPLE DESCRIPTION SHEET**
THOR EXPLORATIONS LTD.

**Zone: 8, NAD 27 Canada**

| Sample No. | Easting | Northing | Traverse | Horizon | Depth | Slope | Colour | Permafrost | % Coarse | Vegetation | Surficial | Frag. | % Organics | Date | Sampler | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | UTM | UTM | | | (cm) | Angle | | (yes/no?) | Fragments | | Geology | Lithology | | | | |
| M157651S | 399432 | 7079677 | FAR | A-B | 5 | Mod | Grey | N | 20 | Nv | Talfines | Hfels | 40 | 23/09/2003 | HM | Frozen |
| M157652S | 399407 | 7079641 | FAR | C | 5 | Mod | Buff | N | 90 | Nv | Talfines | Schist | 5 | 23/09/2003 | HM | Frozen |
| M157653S | 399377 | 7079580 | FAR | A/C | 5 | Mod | Buff | N | 70 | Nv | Talfines | Schist | 20 | 23/09/2003 | HM | Frozen |
| M157654S | 399353 | 7079508 | FAR | B | 5 | Mod | Black | N | 20 | Nv | Talfines | QzMon | 10 | 23/09/2003 | HM | Frozen |
| M157655S | 399352 | 7079440 | FAR | B | 5 | Mod | Black | N | 20 | Nv | Talfines | Schist | 40 | 23/09/2003 | HM | Frozen |
| M157656S | 399290 | 7079400 | FAR | A/C | 5 | Steep | dk gry | N | 40 | Nv | Talfines | Schist | 50 | 23/09/2003 | HM | Frozen |
| M157657S | 399189 | 7079257 | FAR | A/C | 5 | Mod | dk gry | N | 30 | Nv | Talfines | Schist | 60 | 23/09/2003 | HM | Frozen |
| M157658S | 399181 | 7079204 | FAR | A | 5 | Mod | Black | N | 30 | Nv | Talfines | Schist | 90 | 23/09/2003 | HM | Frozen |
| M157659S | 399135 | 7078892 | FAR | A | 5 | Steep | Black | N | 5 | Nv | Talfines | Schist | 90 | 23/09/2003 | HM | Frozen |
| M157660S | 399174 | 7078829 | FAR | A | 5 | Steep | dk gry | N | 5 | Nv | Talfines | Schist | 90 | 23/09/2003 | HM | Frozen |
| M157661S | 399184 | 7078761 | FAR | A/C | 5 | Steep | dk gry | N | 20 | Nv | Talfines | Schist | 80 | 23/09/2003 | HM | Frozen |
| M157662S | 399190 | 7078711 | FAR | A | 5 | Mod | dk gry | N | 10 | Nv | Talfines | Schist | 90 | 23/09/2003 | HM | Frozen |
| M157663S | 399200 | 7078651 | FAR | A/C | 5 | Mod | dk gry | N | 30 | Nv | Talfines | Schist | 90 | 23/09/2003 | HM | Frozen |
| M157664S | 399199 | 7078587 | FAR | A/C | 5 | Mod | dk gry | N | 30 | Nv | Talfines | Schist | 80 | 23/09/2003 | HM | Frozen |
| M157701S | 398661 | 7075210 | TP | B | 30 | Mod | Grn-brn | N | 10 | StuntConifer | | | 20 | 23/09/2003 | CT | |
| M157702S | 398603 | 7075206 | TP | B | 25 | Mod | Brown | N | 25 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 50m W al line |
| M157703S | 398544 | 7075201 | TP | B | 25 | Mod | Brown | N | 30 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 100m W al line |
| M157704S | 398485 | 7075197 | TP | B | 20 | Mod | Brown | N | 20 | StuntConifer | Till | | 15 | 23/09/2003 | CT | 150m W |
| M157705S | 398427 | 7075193 | TP | B | 30 | Mod | Brown | N | 25 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 200m W |
| M157706S | 398323 | 7075188 | TP | B | 25 | Mod | Brown | N | 20 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 300m W |
| M157707S | 398219 | 7075184 | TP | B | 20 | Mod | Brown | N | 25 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 400m W |
| M157708S | 398114 | 7075180 | TP | B | 25 | Mod | Brown | N | 15 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 500m W |
| M157709S | 398009 | 7075177 | TP | B | 20 | Mod | Brown | N | 20 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 600m W |
| M157710S | 397911 | 7075177 | TP | B | 25 | Mod | Brown | N | 25 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 700m W |
| M157711S | 397813 | 7075177 | TP | B | 30 | Mod | Brown | N | 20 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 800m W |
| M157712S | 397713 | 7075177 | TP | B | 20 | Mod | Brown | N | 30 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 900m W |
| M157713S | 397613 | 7075177 | TP | B | 25 | Mod | Brown | N | 20 | StuntConifer | Till | | 10 | 23/09/2003 | CT | 1000m W |
| M157714S | 397520 | 7075167 | TP | B | 20 | Mod | Brown | N | 25 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 1100m W |
| M157715S | 397426 | 7075158 | TP | B | 30 | Mod | Brown | N | 20 | StuntConifer | Till | | 5 | 23/09/2003 | CT | 1200m W |
| M157716S | 397324 | 7075157 | TP | B | 20 | Mod | Brown | N | 40 | Tundra | Till | | 5 | 23/09/2003 | CT | 1300m W |
| M157717S | 397223 | 7075156 | TP | B | 25 | Mod | Brown | N | 10 | Tundra | Till | | 10 | 23/09/2003 | CT | 1400m W |
| M157718S | 397220 | 7075056 | TP | B | 20 | Mod | Brown | N | 20 | Tundra | Till | | 5 | 23/09/2003 | CT | 100m S of M157716S |
| M157719S | 397217 | 7074956 | TP | B | 20 | Gen | Brown | N | 20 | Tundra | Till | | 10 | 23/09/2003 | CT | 200m S of M157716S |
| M157720S | 397214 | 7074856 | TP | B | 35 | Flat | Brown | N | 40 | Tundra | Till | | 5 | 23/09/2003 | CT | 300m S of M157716S |

# Appendix 3: Geochemical Sample Results

**Appendix 3a) Rock Sample Results**
**Appendix 3b) Soil Sample Results**

## Appendix 3a

**ROCK SAMPLE GEOCHEMICAL RESULTS, CLEAR CREEK PROPERTY**
**THOR EXPLORATIONS LTD.**

| SAMPLE No. | Au ppm | Ag ppm | Al % | As ppm | B ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M156451R | 0.01 | <0.2 | 1.54 | 5 | <10 | 80 | 0.5 | <2 | 0.04 | <0.5 | 5 | 105 | 11 | 2.49 | <10 | <1 | 0.51 | 20 | 0.65 | 200 | 1 | 0.03 | 17 |
| M156452R | <0.01 | <0.2 | 1.45 | 5 | <10 | 230 | 0.8 | <2 | 0.53 | <0.5 | 6 | 98 | 4 | 2.58 | 10 | <1 | 0.72 | 40 | 0.6 | 464 | 1 | 0.14 | 8 |
| M157751R | 0.01 | <0.2 | 2.03 | 3 | 10 | 80 | <0.5 | <2 | 0.05 | <0.5 | 24 | 94 | 24 | 4.42 | 10 | 1 | 0.19 | 20 | 0.75 | 1070 | <1 | 0.02 | 55 |

## Appendix 3a

**ROCK SAMPLE GEOCHEMICAL RESULTS, CLEAR CREEK PROPERTY**
**THOR EXPLORATIONS LTD.**

| SAMPLE No. | P ppm | Pb ppm | S % | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Za ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M156451R | 160 | 4 | 0.02 | <2 | 3 | 11 | 0.09 | <10 | <10 | 22 | <10 | 36 |
| M156452R | 760 | 7 | 0.01 | <2 | 4 | 45 | 0.2 | <10 | <10 | 41 | <10 | 59 |
| M157751R | 340 | 14 | 0.01 | <2 | 2 | 9 | 0.01 | <10 | <10 | 17 | <10 | 81 |

## Appendix 3b

**SOIL SAMPLE GEOCHEMICAL RESULTS**
THOR EXPLORATIONS LTD.

| Sample No. | Au | Ag | Al | As | B | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm |
| M157651S | <0.001 | 0.5 | 0.5 | 27 | <10 | 70 | <0.5 | <2 | 0.1 | <0.5 | 5 | 13 | 32 | 2.02 | <10 | 1 | 0.08 | 10 |
| M157652S | 0.006 | <0.2 | 1.42 | 23 | <10 | 30 | <0.5 | <2 | 0.01 | <0.5 | 4 | 31 | 40 | 4.07 | 10 | <1 | 0.12 | 20 |
| M157653S | 0.004 | 0.3 | 1.66 | 58 | <10 | 90 | 0.5 | <2 | 0.06 | <0.5 | 25 | 31 | 64 | 5.39 | <10 | <1 | 0.17 | 20 |
| M157654S | 0.009 | 0.8 | 0.99 | 139 | <10 | 120 | 0.7 | <2 | 0.15 | <0.5 | 19 | 16 | 20 | 2.67 | <10 | <1 | 0.1 | 10 |
| M157655S | 0.194 | 0.2 | 1.87 | 557 | <10 | 290 | 0.9 | 3 | 0.36 | <0.5 | 37 | 27 | 42 | 2.55 | <10 | <1 | 0.28 | 20 |
| M157656S | 0.067 | 0.4 | 4.02 | 282 | <10 | 360 | 2.1 | 3 | 0.18 | <0.5 | 20 | 50 | 57 | 3.41 | 10 | 1 | 0.66 | 40 |
| M157657S | 0.015 | <0.2 | 1.92 | 16 | <10 | 220 | 0.8 | 2 | 0.37 | <0.5 | 17 | 33 | 38 | 2.75 | <10 | 1 | 0.32 | 20 |
| M157658S | 0.01 | 0.2 | 0.84 | 10 | <10 | 90 | <0.5 | <2 | 0.16 | <0.5 | 7 | 19 | 24 | 2.2 | <10 | <1 | 0.11 | 10 |
| M157659S | <0.001 | 0.9 | 0.25 | 80 | <10 | 80 | <0.5 | <2 | 1.14 | 1.5 | 4 | 8 | 10 | 1.02 | <10 | 1 | 0.08 | 10 |
| M157660S | 0.005 | 0.8 | 1.34 | 61 | <10 | 120 | 0.6 | 6 | 0.1 | <0.5 | 14 | 27 | 29 | 3.32 | <10 | <1 | 0.26 | 20 |
| M157661S | 0.008 | 0.2 | 1.22 | 27 | <10 | 100 | <0.5 | <2 | 0.13 | <0.5 | 9 | 24 | 21 | 2.75 | <10 | <1 | 0.14 | 10 |
| M157662S | 0.007 | 0.5 | 0.94 | 72 | <10 | 180 | 0.5 | <2 | 0.14 | <0.5 | 11 | 20 | 18 | 2.43 | <10 | <1 | 0.16 | 10 |
| M157663S | 0.013 | 0.3 | 1.04 | 36 | <10 | 260 | 0.5 | <2 | 0.29 | 0.7 | 14 | 25 | 18 | 2.14 | <10 | <1 | 0.38 | 10 |
| M157664S | 0.011 | 0.4 | 0.99 | 20 | <10 | 230 | <0.5 | <2 | 0.26 | <0.5 | 7 | 21 | 13 | 2.5 | <10 | <1 | 0.1 | 10 |
| M157701S | 0.006 | <0.2 | 1.29 | 47 | <10 | 130 | 0.5 | <2 | 0.26 | <0.5 | 12 | 24 | 28 | 3.07 | <10 | <1 | 0.09 | 30 |
| M157702S | 0.004 | <0.2 | 1.3 | 31 | <10 | 150 | <0.5 | <2 | 0.22 | <0.5 | 8 | 25 | 18 | 2.49 | <10 | <1 | 0.06 | 20 |
| M157703S | 0.033 | <0.2 | 1.46 | 41 | <10 | 170 | 0.5 | <2 | 0.45 | <0.5 | 9 | 30 | 21 | 2.83 | <10 | <1 | 0.07 | 20 |
| M157704S | 0.011 | <0.2 | 1.47 | 46 | <10 | 180 | 0.5 | <2 | 0.46 | <0.5 | 8 | 23 | 22 | 2.9 | <10 | 1 | 0.08 | 20 |
| M157705S | 0.009 | 0.2 | 0.77 | 16 | <10 | 70 | <0.5 | <2 | 0.09 | <0.5 | 3 | 14 | 11 | 1.44 | <10 | <1 | 0.04 | 10 |
| M157706S | 0.005 | <0.2 | 1.12 | 39 | <10 | 90 | <0.5 | <2 | 0.11 | <0.5 | 6 | 20 | 15 | 2.44 | <10 | <1 | 0.05 | 20 |
| M157707S | 0.005 | <0.2 | 0.97 | 20 | <10 | 90 | <0.5 | <2 | 0.11 | <0.5 | 4 | 19 | 11 | 1.8 | <10 | <1 | 0.04 | 10 |
| M157708S | 0.004 | <0.2 | 1.01 | 20 | <10 | 130 | <0.5 | <2 | 0.23 | <0.5 | 4 | 18 | 11 | 1.6 | <10 | <1 | 0.04 | 10 |
| M157709S | 0.012 | 0.2 | 1.05 | 17 | <10 | 80 | <0.5 | <2 | 0.15 | <0.5 | 5 | 19 | 13 | 1.89 | <10 | <1 | 0.04 | 20 |
| M157710S | 0.014 | 0.7 | 1.33 | 58 | <10 | 180 | <0.5 | <2 | 0.13 | <0.5 | 9 | 22 | 20 | 2.68 | <10 | <1 | 0.06 | 20 |
| M157711S | 0.012 | 0.5 | 1.28 | 46 | <10 | 170 | <0.5 | <2 | 0.13 | <0.5 | 6 | 25 | 20 | 2.56 | <10 | <1 | 0.05 | 10 |
| M157712S | 0.005 | <0.2 | 1.12 | 13 | <10 | 100 | <0.5 | <2 | 0.12 | <0.5 | 7 | 21 | 19 | 2.45 | <10 | 1 | 0.04 | 20 |
| M157713S | 0.01 | 0.3 | 1.26 | 38 | <10 | 170 | <0.5 | <2 | 0.2 | <0.5 | 10 | 23 | 18 | 2.69 | <10 | <1 | 0.05 | 10 |
| M157714S | 0.011 | <0.2 | 1.18 | 23 | <10 | 100 | <0.5 | <2 | 0.12 | <0.5 | 5 | 21 | 12 | 2.28 | <10 | <1 | 0.04 | 10 |
| M157715S | <0.001 | <0.2 | 1.45 | 26 | <10 | 170 | <0.5 | <2 | 0.1 | <0.5 | 6 | 23 | 23 | 2.75 | <10 | <1 | 0.05 | 20 |
| M157716S | 0.326 | 0.9 | 0.75 | 92 | <10 | 70 | <0.5 | <2 | 0.05 | 0.7 | 17 | 11 | 34 | 3.66 | <10 | <1 | 0.05 | 30 |
| M157717S | 0.006 | <0.2 | 1.18 | 10 | <10 | 50 | <0.5 | <2 | 0.06 | <0.5 | 3 | 18 | 9 | 2.23 | <10 | <1 | 0.03 | 10 |
| M157718S | <0.001 | <0.2 | 0.49 | 8 | <10 | 50 | <0.5 | <2 | 0.07 | 0.5 | 3 | 8 | 9 | 0.87 | <10 | <1 | 0.04 | 10 |
| M157719S | 0.008 | 0.3 | 1.42 | 18 | <10 | 120 | <0.5 | <2 | 0.1 | <0.5 | 9 | 22 | 40 | 2.74 | <10 | 1 | 0.05 | 20 |
| M157720S | 0.006 | <0.2 | 0.81 | 11 | <10 | 60 | <0.5 | <2 | 0.04 | <0.5 | 4 | 12 | 18 | 1.62 | <10 | <1 | 0.04 | 20 |

## Appendix 3b

**SOIL SAMPLE GEOCHEMICAL RESULTS**
THOR EXPLORATIONS LTD.

| Sample No. | Mg | Mn | Mo | Na | Ni | P | Pb | S | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | ppm | ppm | % | ppm | ppm | ppm | % | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| M157651S | 0.1 | 306 | 4 | 0.01 | 13 | 2150 | 19 | 0.2 | <2 | 1 | 8 | 0.01 | <10 | <10 | 22 | <10 | 46 |
| M157652S | 0.56 | 202 | 1 | <0.01 | 12 | 370 | 18 | 0.03 | <2 | 2 | 5 | 0.02 | <10 | <10 | 34 | <10 | 67 |
| M157653S | 0.48 | 565 | 6 | 0.02 | 33 | 1060 | 11 | 0.17 | <2 | 2 | 13 | 0.04 | <10 | <10 | 39 | <10 | 66 |
| M157654S | 0.25 | 899 | 2 | 0.01 | 26 | 950 | 26 | 0.13 | <2 | 1 | 23 | 0.03 | <10 | <10 | 34 | 10 | 66 |
| M157655S | 0.94 | 2030 | 1 | 0.01 | 58 | 1080 | 13 | 0.14 | <2 | 1 | 32 | 0.05 | <10 | <10 | 35 | 50 | 114 |
| M157656S | 1.4 | 1135 | <1 | 0.01 | 138 | 620 | 15 | 0.06 | <2 | 5 | 29 | 0.15 | <10 | <10 | 71 | 200 | 99 |
| M157657S | 1.06 | 697 | <1 | 0.01 | 32 | 730 | 8 | 0.06 | <2 | 2 | 29 | 0.1 | <10 | <10 | 49 | 20 | 96 |
| M157658S | 0.31 | 702 | 3 | 0.01 | 17 | 1440 | 6 | 0.18 | <2 | <1 | 15 | 0.03 | <10 | <10 | 31 | <10 | 53 |
| M157659S | 0.11 | 728 | 2 | 0.02 | 7 | 1110 | 26 | 0.16 | <2 | 1 | 75 | 0.01 | <10 | <10 | 10 | 10 | 126 |
| M157660S | 0.42 | 1160 | 3 | 0.01 | 38 | 810 | 25 | 0.07 | <2 | 2 | 12 | 0.07 | <10 | <10 | 42 | 10 | 72 |
| M157661S | 0.37 | 390 | 1 | 0.01 | 21 | 580 | 11 | 0.06 | <2 | 1 | 13 | 0.05 | <10 | <10 | 42 | 10 | 48 |
| M157662S | 0.3 | 992 | 1 | 0.01 | 19 | 740 | 12 | 0.07 | <2 | 1 | 16 | 0.05 | <10 | <10 | 37 | 30 | 67 |
| M157663S | 0.35 | 2970 | 1 | 0.01 | 21 | 1140 | 16 | 0.11 | <2 | 1 | 20 | 0.06 | <10 | <10 | 32 | 10 | 176 |
| M157664S | 0.3 | 669 | 1 | 0.01 | 15 | 600 | 11 | 0.06 | <2 | 1 | 25 | 0.06 | <10 | <10 | 45 | 20 | 73 |
| M157701S | 0.44 | 270 | <1 | 0.01 | 25 | 400 | 11 | 0.01 | <2 | 3 | 16 | 0.03 | <10 | <10 | 30 | <10 | 55 |
| M157702S | 0.42 | 363 | <1 | 0.01 | 20 | 550 | 9 | 0.02 | <2 | 3 | 17 | 0.03 | <10 | <10 | 34 | <10 | 57 |
| M157703S | 0.49 | 449 | <1 | 0.01 | 22 | 620 | 9 | 0.03 | <2 | 3 | 29 | 0.03 | <10 | <10 | 38 | <10 | 66 |
| M157704S | 0.46 | 640 | <1 | 0.01 | 23 | 530 | 9 | 0.03 | <2 | 3 | 30 | 0.03 | <10 | <10 | 32 | <10 | 59 |
| M157705S | 0.15 | 218 | <1 | 0.01 | 8 | 700 | 14 | 0.04 | <2 | <1 | 10 | 0.02 | <10 | <10 | 27 | <10 | 32 |
| M157706S | 0.35 | 286 | <1 | 0.01 | 17 | 590 | 11 | 0.03 | <2 | 1 | 11 | 0.02 | <10 | <10 | 35 | <10 | 50 |
| M157707S | 0.32 | 120 | <1 | <0.01 | 13 | 520 | 14 | 0.02 | <2 | 1 | 10 | 0.03 | <10 | <10 | 35 | <10 | 43 |
| M157708S | 0.31 | 130 | <1 | 0.01 | 13 | 550 | 9 | 0.03 | <2 | 1 | 16 | 0.02 | <10 | <10 | 28 | <10 | 44 |
| M157709S | 0.34 | 170 | <1 | 0.01 | 14 | 650 | 10 | 0.01 | <2 | 1 | 12 | 0.03 | <10 | <10 | 31 | <10 | 49 |
| M157710S | 0.41 | 505 | 1 | 0.01 | 21 | 640 | 16 | 0.03 | <2 | 2 | 15 | 0.03 | <10 | <10 | 38 | <10 | 66 |
| M157711S | 0.38 | 305 | 1 | 0.01 | 19 | 770 | 15 | 0.03 | <2 | 1 | 15 | 0.03 | <10 | <10 | 40 | <10 | 69 |
| M157712S | 0.34 | 339 | <1 | <0.01 | 16 | 580 | 9 | 0.02 | <2 | 1 | 11 | 0.03 | <10 | <10 | 37 | <10 | 54 |
| M157713S | 0.4 | 377 | <1 | 0.01 | 20 | 760 | 18 | 0.03 | <2 | 1 | 16 | 0.03 | <10 | <10 | 40 | <10 | 68 |
| M157714S | 0.36 | 210 | <1 | <0.01 | 15 | 550 | 8 | 0.02 | <2 | 1 | 11 | 0.03 | <10 | <10 | 36 | <10 | 50 |
| M157715S | 0.36 | 227 | 1 | 0.01 | 20 | 910 | 8 | 0.06 | <2 | 1 | 15 | 0.02 | <10 | <10 | 40 | <10 | 54 |
| M157716S | 0.18 | 635 | <1 | <0.01 | 41 | 460 | 75 | 0.01 | 4 | 2 | 13 | 0.01 | <10 | <10 | 15 | <10 | 198 |
| M157717S | 0.24 | 123 | <1 | <0.01 | 10 | 280 | 11 | 0.02 | <2 | 1 | 7 | 0.03 | <10 | <10 | 37 | <10 | 30 |
| M157718S | 0.09 | 192 | 1 | 0.01 | 7 | 480 | 9 | 0.03 | <2 | <1 | 9 | 0.01 | <10 | <10 | 23 | <10 | 32 |
| M157719S | 0.47 | 313 | 1 | <0.01 | 26 | 510 | 9 | 0.01 | <2 | 3 | 11 | 0.04 | <10 | <10 | 33 | <10 | 66 |
| M157720S | 0.22 | 164 | 1 | <0.01 | 11 | 330 | 9 | 0.02 | <2 | 1 | 7 | 0.03 | <10 | <10 | 31 | <10 | 33 |

UTM 397,000m E | 398,000 | 399,000 | 400,000

7,081,000 | 7,080,000 | 7,079,000 | 7,078,000 | 7,077,000 | 7,076,000 | 7,075,000 | 7,074,000 m N

Rhosgobel Au zone

Rhosgobel Stock
Q mon
KTg

Gran
Q Mon

Gran
KT

Gr
Gr
Gr

Q Dior

Limy psam

FAR 31 YB42033
FAR 32 YB42034
FAR 33 YB42035
FAR 34 YB42036
FAR 51 YB42053
FAR 52 YB42054
FAR 53 YB42055
FAR 54 YB42056

felsenmeer

Hyland Group
Yusezyu Formation

Grits, pelite, psammites,
minor limestone, marble

Approx. limit of dredging

Approx. limit of cleared valley floor - limit of placer workings?

Clear Creek

TP 8 YB48047
TP 6 YB48045
TP 4 YB48043
TP 2 YB48042
TP 5 YB48044
TP 7 YB48046

100 ppb Au

No o/c

Qz Tourm vein

X Phyllite, wk Phyllite alt

R/c, sh - phy

X R/c, phy - slt

R/c, sst - phy

Slate - phyllite, early Q vns

X R/c, slate, minor Qz

Phy, boud Q vns

phyllite, phyllic alt tr. Py

Lst

Limy phy, weak cal slt alt

Phy white Qz vns

X Phy - psammite, bedding - parallel boud- Q vns

Lst, minor siltstone "Z-fold" kink banding

Mayo Mining District

Dawson Mining District

KTp

KMg

Vancouver Creek Stock
(McQuesten Suite)

N

## LEGEND

BEDROCK GEOLOGY:

LATE CRETACEOUS - PALEOCENE
McQuesten Intrusives

Kmg
Medium - coarse grained, locally porphyritic and potassium - feldspar megacrystic biotite +/- muscovite granite + quartz syenite

EARLY LATE CRETACEOUS
Tombsotne Intrusives

KTp
Fine grained, locally porphyritic, primarily granitic dykes

KTg
Granite, Rhyolite

KTg
Quartz Monzonite, medium - coarse grained

KTg
Quartz Diorite

UPPER PALEOZOIC - CAMBRIAN
Hyland Group

PyT
Yusezya Formation within Tombstone Strain Zone; Limestone, silty limestone

PyT
Yusezya Formation
foliated muscovite - chlorite phyllite, quartzo - feldspathic + micaceous psammite; quartzite, rare calcsilicate marble

Boundary of inner metamorphism metasomatism (hornfels) zone

Limit of outer hornfels zone

SYMBOLS:

Strike and dip of bedding: Year 2003; pre-2003

Strike and dip of foliation: Year 2003; pre-2003

Strike and dip of vein: Year 2003; pre-2003

Strike and dip of small dyke (pre-2003)

Intersection lineation (Year 2003)

Gold - in - soil contour: 20 ppb, 100 ppb (Lueck, 1994)

Fault, relative movement

Linear or "Fracture"; known, inferred

Geological contact

Claim line (inferred location)

X Outcrop or rubblecrop; small outcrop: Year 2003 mapping

ABBREVIATIONS:

| | |
|---|---|
| boud | Boudined |
| cal | Calcareous |
| Gran | Granite |
| Lst | Limestone |
| O/c | Outcrop |
| phy | Phyllite |
| psam | Psammite |
| Q Dior | Quartz Diorite |
| Q Mon | Quartz Monzonite |
| Q Vns | Quartz Veins |
| R/c | Rubblecrop |
| sh | Shale |
| sil | Silicified |
| slt | Siltstone |
| sst | Sandstone |
| tourm | Tourmaline |

DATA SOURCES:

Legend based on EGSD Geoscience Map 1996-1, Geological Map of Sprague Creek Map Area, Western Selwyn Basin, Yukon, NTS 115P/15, 1996 by D.C. Murphy and D. Héon, Accompanies EGSD Bulletin 6, Scale: 1:50,000 map

Portions based on Stephens, Mair, Oliver, Hart and Baker, submitted to Journal of Structural Geology

TOPOGRAPHIC BASE: Natural Resources Canada, Legal Surveys Division, Whitehorse. Contour interval 100 feet.

Digital cartography and drafting by R. Stirling, Geological Drafting Services.

North American Datum 1927
Zone 8

0 200 400 600 800 m

Scale 1 : 10,000

094456

UTM 7,074,000m N

UTM 397,000m E | 398,000 | 399,000 | 400,000

# Map 1

## Geology and Compilation FAR 31-34, 51-54, TP Claims CLEAR CREEK PROJECT

## Thor Explorations Ltd.

Field Work and Compilation by
All-Terrane Mineral Exploration Services

NTS: 115 P/14

December 30, 2003

UTM 397,000m E | 398,000 | 399,000 | 400,000

UTM 7,081,000m N

7,081,000 | 7,080,000 | 7,079,000 | 7,078,000 | 7,077,000 | 7,076,000 | 7,075,000 | 7,074,000

FAR 31 YB42033
FAR 32 YB42034
FAR 33 YB42035
FAR 34 YB42036
FAR 51 YB42053
FAR 52 YB42054
FAR 53 YB42055
FAR 54 YB42056

M157651S <0.001/37
M157652S 0.006/23
M157653S 0.004/58
M157654S 0.009/139
M157655S 0.164/507 + 50 W (ppm)
M157656S 0.067/282 + 200 W (ppm)
felsenmeer
M157657S 0.015/16
M157658S 0.010/16
M156452R 0.010/5
M157659S <0.001/80
Q Dior
M157660S 0.005/61
M157661S 0.008/27
M157662S 0.007/72
M157663S 0.013/36
M157664S 0.011/20
Limy psam
Inner Aureole
Outer Aureole
Limit of Outer Aureole

>1500/815/580
8/2/48
Approx. limit of dredging
Approx. limit of cleared valley floor - limit of placer workings?
Clear Creek
0
3
190/375/220
2
13/2/<1
4

TP 8 YB48047
TP 6 YB48045
TP 4 YB48043
TP 2 YB48042
TP 5 YB48044
TP 7 YB48046
100 ppb Au
M157716S 0.036/92
M157715S <0.001/26
M157714S 0.017/23
M157713S 0.01/38
M157712S 0.005/13
M157711S 0.012/46
M157710S 0.014/58
M157709S 0.012/17
M157708S 0.004/20
M157707S 0.005/20
M157706S 0.005/39
M157705S 0.003/18
M157704S 0.017/46
M157702S 0.004/31
M157701S 0.006/47
M157703S 0.033/41
M157717S 0.006/10
M157718S <0.001/8
M157751R 0.01/3
M157719S 0.008/18
M157720S 0.006/11
Mayo Mining District
Dawson Mining District

## SYMBOLS and LEGEND

| | |
|---|---|
| Q Dior | Quartz Diorite |
| Inner Aureole | Psammite with strong foliation, strong contact metamorphic overprint of biotite and andalusite |
| Outer Aureole | Psammite, locally weakly limy, weak contact metamorphic overprint of biotite |
| ▲M156452R <0.01/5 | Rock sample location (Year 2003 sampling) Au, ppm / As, ppm |
| ●M157659S <0.001/80 | Soil sample location (Year 2003 sampling) Au, ppm / As, ppm |
| ⊞ 2 | Silt sample location: Archer Cathro (1971) W, ppm |
| ■ 190/375/220 | Heavy metal silt geochemistry: Cantung, 1981 Au (ppb), W (ppm), Sn (ppm) |
| ■ 13/2/<1 | GSC silt sample: Cu (ppm), W (ppm), Au (ppb) |
| | Gold - in - soil contour: 20 ppb, 100 ppb (Lueck, 1994) |
| | Claim line (inferred location) |

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North American Datum 1927
Zone 8

0 200 400 600 800 m

Scale 1 : 10,000



Map 2

# Sample Locations
# FAR 31-34, 51-54, TP Claims
# CLEAR CREEK PROJECT

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December 30, 2003