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Report on the 2016 North Vermilion Exploration Program

Transition Metals Corp.

Written By:
Steven Flank – Project Geologist

June 1, 2016

Contents

Introduction

In May 2016 Transition Metals Corp. completed a 2 day mapping and sampling program at it's 100% owned North Vermillon property. The property is considered to be prospective for Zn-Pb-Cu mineralization similar to that hosted within the nearby Vermillon and Errington deposits. The objective of the program was to map the stratigraphy of the Whitewater Group metasedimentary projects to determine if prospective Vermilion Formation rocks were present on the property. It is the opinion of Transition Metals that a steeply south-dipping unit of mafic tuff/mudstone found along the northern margin of the property is likely part of the upper portion of the Dowling Member of the Onaping Formation or the lower portion of the Vermilion Formation. These rocks comprise the footwall to the

Vermilion and Errington deposits and as such there is potential for mineralized Vermilion member rocks to be found at depth on the property.

Location

The North Vermilion property is located approximately 25km west of the City of Sudbury, Ontario in Fairbank Township (Figure 1). Access to the property from Sudbury is by following Hwy 144 NW for 24km then turning south on Vermillon Lake Road. Follow Gordon Lake Road for 5km and turn W on the Lockerby Mine Access Road. The road crosses the NW corner of the claim 2km from this junction and further access is granted by a series of trails and a power line which transects the south-central portion of the property.

Land Tenure

The North Vermilion property is comprised of a single 10 unit claim summarized below and shown in Figure 2.

Table 1: Summary of the North Vermilion claim.

Claim Number	Township	Recording Date	Claim Due Date	Units	Work Required	Total Applied	Total Reserve
4270539	FAIRBANK	2014-Jun-06	2016-Jun-06	10	$1,600	$0	$0

Previous Work

1924: Joseph Errington acquires options on ground covering the Errington and Vermilion base metal occurences

1926-1931: Treadwell Yukon Company completes diamond drilling and begins commercial operations on the Errington Mine

1928-1930: Sudbury Basin Company discovers ore under Vermilion Lake and proceeds to develop the Vermilion Mine

1931-1950: Operations at both mines are suspended and no exploration work is recorded over this time period

1948: Ontario Pyrites Company completes metallurgical testing of the the ores at Errington and Vermilion

1950: Hoyle Mining completes diamond drilling near and on the property

1991: Falconbridge completes geological and geochemical surveys west of the property

2013: Xstrata Zinc announces an updated mineral resource estimate summarized below:

Deposit Name	Measured Mineral Resource (Mt)	Zn (%)	Pb (%)	Cu (%)	Ag (g/t)	Au (g/t)
Errington	6.7	3.94	1.10	1.15	52.0	0.84
Vermilion	2.8	4.22	1.16	1.34	52.6	0.91

2014: Transition Metals stakes 5 claims in Fairbank Township including claim 4270539

Figure 1: North Vermilion property location

Date / Time of Issue: Wed May 25, 17:22:31 EST 2016

Ontario

Ontario Ministry of Northern Development and Mines
Mining Lands Claim Map

Administrative Districts

Township

FAIRBANK

Mining Division

Sudbury

Land Registry

SUDBURY

MNRF District Office

SUDBURY

Topographic

- Building as Symbol
- Building to Scale
- Runway
- Heliport \ Hospital Heliport
- Seaplane Base
- Ferry Route
- Trail Head \ Trail
- Railway \ Train Station
- Railway with Bridge
- Railway with Tunnel
- Road (Major → Minor)
- Winter Road
- Road with Bridge
- Road with Tunnel
- Primary, King's or Secondary Highway
- Secondary Highway
- Tertiary Highway
- District, County, Regional or Municipal Road
- Toll Highway
- One Way Road
- Road with Permanent Blocked Passage
- Road with Address Ranges
- Hydro Line, Communication Line or Unknown Transmission Line
- Natural Gas Pipeline, Water Pipeline or Unknown Pipeline
- Spot Height
- Index Contour
- Contour
- Wooded Area
- Wetland
- Waterbody
- Waterbody Elevation
- Watercourse
- Falls
- Rapids
- Rapids \ Falls
- Rapids
- Rocks
- Lock Gate
- Dam \ Hydro Wall
- Dam \ Hydro Wall
- Provincial \ State Boundary
- International Boundary
- Upper Tier \ District Municipal Boundary
- Lower Tier \ Single Tier Municipal Boundary
- Lot Line
- Indian Reserve
- Provincial Park
- National Park
- Conservation Reserve
- Military Lands

Mining Lands

Administration Boundaries
- Mining Divisions
- Resident Geologist District
- Townships and Areas

Mineral Tenure Grid
- OMTG Tenure Grid

Alienations
- Withdrawal
- Notice

Unpatented Claim
- Active
- Pending

Disposition
- Disposition

Disposition Symbols
- Camp
- Disposition Unknown/Pending
- Freehold Patent Mining Rights Only
- Freehold Patent Surface Rights Only
- Freehold Patent Surface and Mining Rights
- Land Use Permit
- Leasehold Patent Mining Rights Only
- Leasehold Patent Surface Rights Only
- Leasehold Patent Surface and Mining Rights
- License of Occupation Mining Use Only
- License of Occupation Surface Use Only
- License of Occupation Surface and Mining Rights
- License of Occupation Uses Not Specified
- Order in Council
- Tower
- WPLA

Geology Layers
- AMIS Sites
- AMIS Features
- Drill Holes
- Mineral Occurrences

Scale
1:10,000

0 1.3 km

Map Datum: NAD 83
Projection: Web Mercator

N

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources.

Completeness and accuracy are not guaranteed.

Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources and Forestry.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

Regional Geology

The North Vermilion Property is situated along the SW margin of the Sudbury Basin, a 60x30km package of intrusive and sedimentary/volcanic rocks which formed due to a majormeteor impact at approximately 1850Ma. Two broad units of rocks are defined within the Sudbury Basin; intrusive rocks of the Sudbury Igneous Complex (SIC) and sedimentary/volcanic rocks of the Whitewater Group.

At its present erosional level the SIC forms a ring around the Whitewater Group, due to the inward dip of strata towards the centre of the basin (Figure 3). Rocks of the Sudbury Basin have been subjected to two major orogenic events: the penecontemperaneous Penokean orogeny (1.890-1.835 Ga) and the Grenville orogeny (1.4-1.0 Ga). These structural events have superimposed a strong regional fabric upon the basin along with thrust faulting and shearing. Deformation is strongest along the southern boundary of the basin, including the area of the North Vermilion property.

The Whitewater Group is comprised of four formations (from oldest to youngest), the Onaping, Vermilion, Onwatin and Chelmsford. The Onaping formation is a 1400m thick sequence of fragmented sedimentary/hydroclastic rocks which overly granophyre from the SIC. They are widely accepted to have formed as a fall-back breccia of the Sudbury meteor impact.

Three members have been recognized within the Onaping Formation, the Basal, Sandcherry and Dowling members. The Basal member is comprised of in-situ brecciated quartzite which is intruded by granophyre and aphanitic dykes. The Sandcherry member conformably overlies the Basal member and is comprised of laterally discontinuous “shard-rich” (60%) intervals in a tuffaceous matrix. The Dowling member is more matrix rich (<40% shards) and is grouped into lower, middle and upper units. The lower member is up to 300m thick and characterized as a lapillistone to tuff breccia, with abundant subrounded clasts, and vitric fragments. Clasts are often comprised of underlying units and flow banded clasts of andesitic melt. The middle member is 600-780m thick and is differentiated from the lower member by a reduction in clast size, being characterized as a tuff or lapilli tuff. The upper member is 140-220m thick and is comprised of tuff and contains local argilliceous and cherty fragments.

The Vermilion Formation is approximately 100m thick and conformably overlies the Onaping Group. The basal unit of the Vermilion Formation is described as basal argillite, a dense, fine-grained and carbonaceous mudstone. Overlying this unit is the carbonate host rock for the Vermilion and Errington mines. This unit is up to 30m thick and is comprised of crystalline carbonate and ranges from fine to coarse grained. A cherty carbonate unit overlies the carbonate host rock which is in turn overlain by a chert breccia. The uppermost member of the formation is a pale-grey to greenish argillite with fine bedding.

The Onwatin Formation is described as a mudstone or black slate unit which conformably overlies the Vermilion formation.

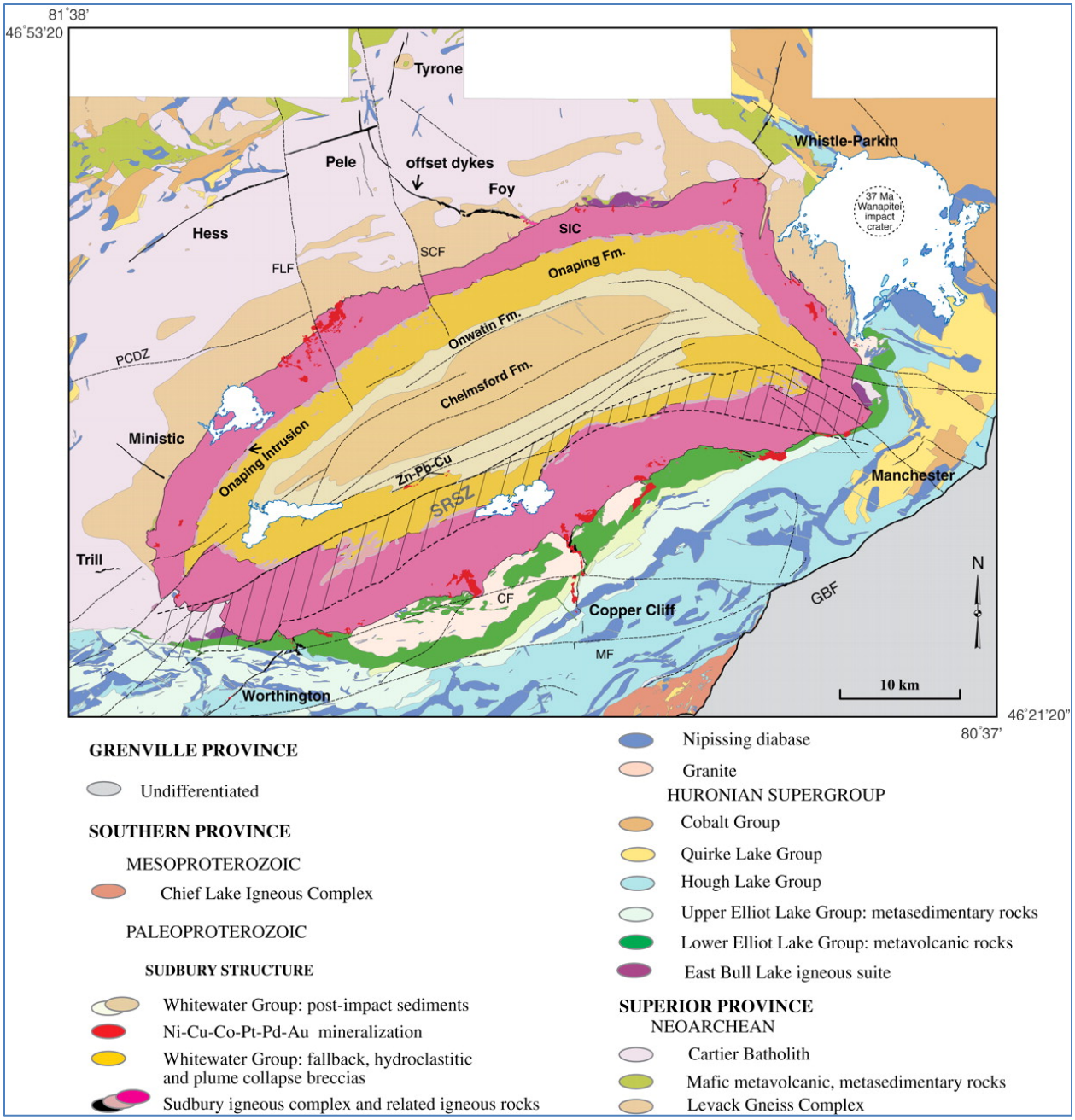


Figure 3: Regional geology of the Sudbury Basin

Summary of Work

Mapping

On May 25th and 26th 2016, Transition Metals geologists Tom Hart and Steven Flank completed traverses across claim 4270539 with the intent of completing a geological map and collecting samples of prospective rock types. Maps showing traverse and station locations are provided in Appendix A. Four rock types were identified and described below, listed from stratigraphically lowest to highest:

Intermediate Tuff: This unit is found on the southern most portion of the property and is a strongly cleaved tuff to lapilli tuff. Clasts comprise <20% of the rock and are generally <2.0cm diameter. The matrix is a buff-grey colour and can be locally pitted. Moving north the clast population and size increases, giving way to the intermediate Lapilli-Tuff

Intermediate Lapilli-Tuff: The unit is a polymictic lapilli-stone or silty pebble conglomerate. It is comprised of 30-40%, polymicitic, angular and rounded clasts within a silty, buff grey matrix. Observed clast compositions include blocks and bombs of grained clast supported intermediate lapilli-stone and lapilli comprised of vitric, calcitic and chloritic angular shards. This chaotic unit is observed to be intruded by intermediate vesicle rich 'dykes' and may be locally pepperitic.

Mafic Lapilli-Tuff: The mafic tuff is differentiated from the intermediate tuff and lapilli-tuff units by having a significantly darker matrix (chloritized?). Clasts are typically <2.0cm and are comprised of angular vitric, calcitic and felsic shards. This unit is observed to be strongly pitted in some locations, possibly indicative of carbonatization.

Mafic Tuff/Mudstone: The northern most unit identified on the property is a grey/black slaty unit interpreted to be a tuff or mudstone. The unit can contain diffuse <5mm wide clasts which are carbonatized and can be preferentially mineralized with pyrite. Pyrite and very minor chalcopyrite mineralization is observed within this unit as fine disseminations or fracture fillings.

Quartz Vein: 3 Quartz carbonate veins were mapped in the southern portion of the property. They have a white to rusty appearance and trace sulfide was observed.

Structural Geology

A pervasive NE-SW trending cleavage is developed across the property with azimuths ranging from 60-90 degrees and dipping 70-80 degrees to the south. This fabric is broadly parallel to isoclinal fold axis noted in the Vermillion and Errington mines and as such is likely axial planar to these structures. No folds were recognized on the property but this may be due to the paucity of outcrop and the chaotic nature of individual beds in the Onaping Formation rocks. The entire sequence of rocks appears to be slightly overturned based on the stratigraphy encountered. The other major structural feature noted is a strong, south plunging stretching lineation which is best observed in strongly stretched clasts (4:1).

Figure 4: Photos of representative rock types. Top left: Intermediate Lapilli Tuff from NV-SF-001. Top Right: Mafic Lapili Tuff from NV-SF-010. Bottom Left: Mafic Tuff/Mudstone from NV-SF-027. Bottom Left: Sulfide replacement of carbonatized lapilli (NV-SF-027)

Sampling

A total of 6 samples were collected from a rusty, sulfide bearing tuff/mudstone unit in the NW corner of the property and from two quartz veins located along the south of the property. Sample details and locations are provided in table 2 below. Samples were shipped to ALS Chemex in Sudbury Ontario. Samples were prepped by crushing to 70% less than 2mm, riffle split to 250g, pulverize split to better than 85% passing 75 microns. Gold was analyzed by fire assay with an ICP-AES finish. 34 element analyses, including base metals, was completed by ICP-AES, following Aqua Regia digest.

Samples were submitted on May 31, 2016 and results are not available at the time of this report. Sample data will be appended to this report promptly upon receipt of the data.

Table 2: Sample details and locations

Station ID	Sample ID	Easting	Northing	Rock Type
NV-SF-019	L785301	475245	5151783	Quartz vein
NV-SF-022	L785302	475373	5151924	Quartz vein
NV-SF-023	L785303	474779	5152352	mafic volcanic Tuff
NV-SF-025	L785304	474748	5152468	mafic volcanic Tuff
NV-SF-026	L785305	474747	5152475	mafic volcanic Tuff
NV-SF-027	L785306	474746	5152477	mafic volcanic Tuff

Interpretation

A geological map of the property was constructed at a scale of 1:5000 and is shown in Appendix B. Outcrop exposures are greatest on the W and SE sides of the property and the stratigraphy observed here strongly influences the interpretation of the geology across the map. Rock types are described as either mafic or intermediate in composition but these qualifiers are best considered as field terminology as they are based only on the relative variation in composition and appearance between the two.

Sharp contacts are difficult to define in the sparse outcrops but one interpretation presented here is that the entire succession of Onaping Formation rocks are subjected to z-folding which could be related to isoclinal folding which is documented near the mine sites at Vermilion and Errington. Alternatively, the mafic tuff rocks on the east side of the property could be faulted further south than the mapping to the west would suggest. Mapping of the upper most mafic tuff unit suggests it may be the upper most member of the Onaping Formation (weakly sulfidic, black slaty appearance). These tuffaceous rocks form the footwall to the Vermilion Formation which hosts both the Vermilion and Errington Mines. Their presence in the north part of the property, along with the overturned, south dipping strata indicates that the mineralized horizon could be present on the property at depth.

Conclusions

The purpose of the 2016 North Vermilion exploration program was to complete geological mapping and prospecting in hopes of identifying Vermilion member carbonate rocks which are prospective for Zn-Pb-Cu mineralization similar to ore deposits at the nearby Errington and Vermilion mines. Other workers have established that a tuff/argillite unit marks the top of the Onaping Formation. The thickness of this unit has been suggested to be between 140-220m by other workers. Mapping suggests that ~150m of this unit occupies the NW corner and possibly NE corner of the property. As such the potential to intersect prospective Vermilion member rocks at depth remains a possibility. Given the steep south dips of structures measured on the property, the contact could occur quite deep however.

Follow up work should include a deep penetrating EM or IP survey which may indicate the presence of massive sulfides at depth. Any anomalies should be evaluated in the context of the bedrock geology and drilled accordingly.

Signatures

Steven Flank
124 Sherwood Drive
Thunder Bay, ON
P7B 6L1

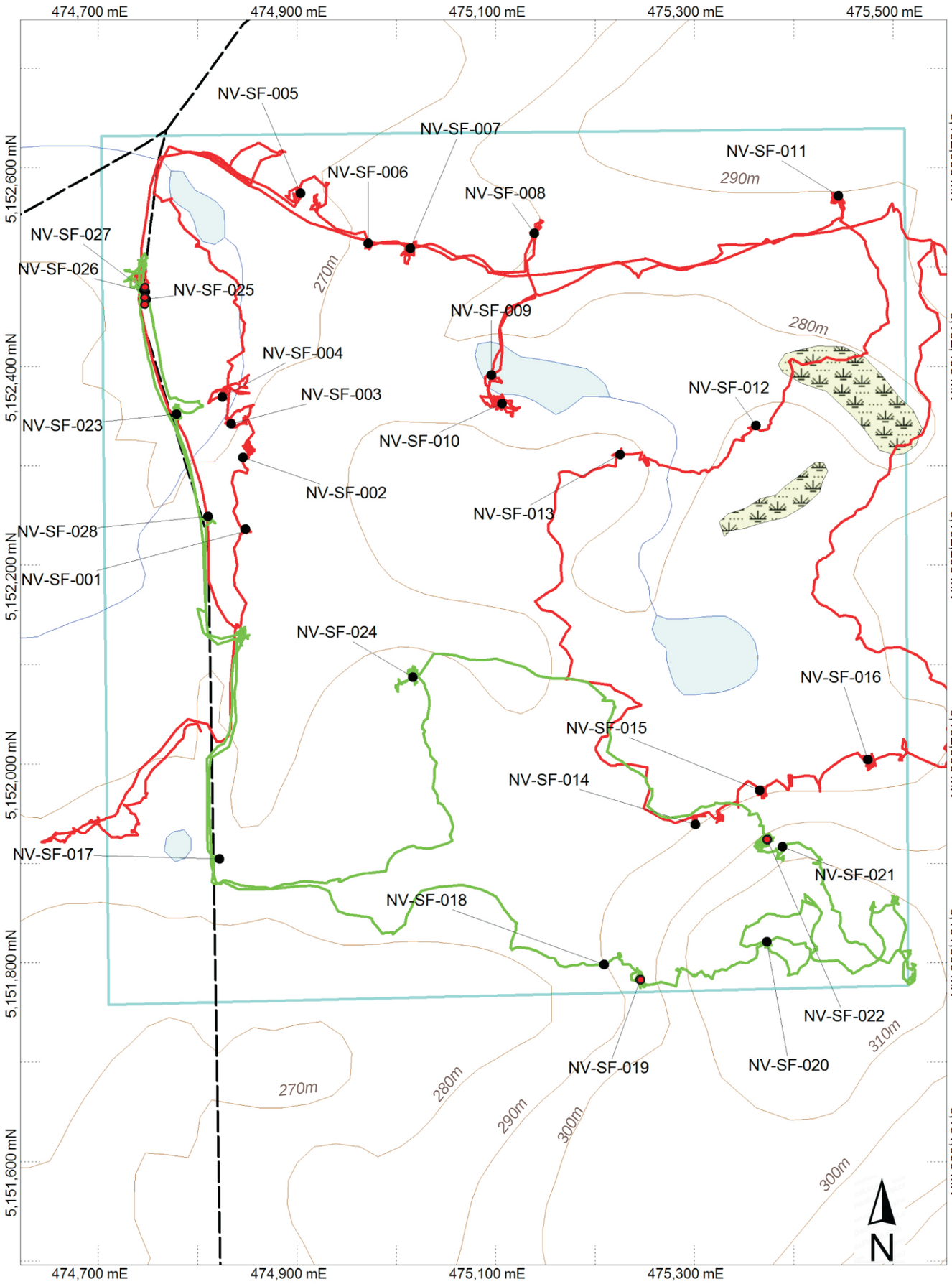
I, Steven Flank, do hereby certify that:

1. I am employed as a Project Geologist for Transition Metals Corporation, a publically traded mineral exploration company.
2. I am a Geologist in Training in good standing of the Association of Professional Geoscientists of Ontario (Member #10027)
3. I have been granted the degree of Honours Bachelor of Science in Geology from Lakehead University (2011).
4. I have worked as an exploration geologist in Canada for five years.
5. I did personally conduct field operations on the North Vermilion property on May 25th and 26th 2016.

Dated the 1st day of June, 2016

Steven Flank

Appendix A: Traverse Map



Transition Metals

North Vermilion Property
Traverse Lines and Station Locations

0 100m 200m

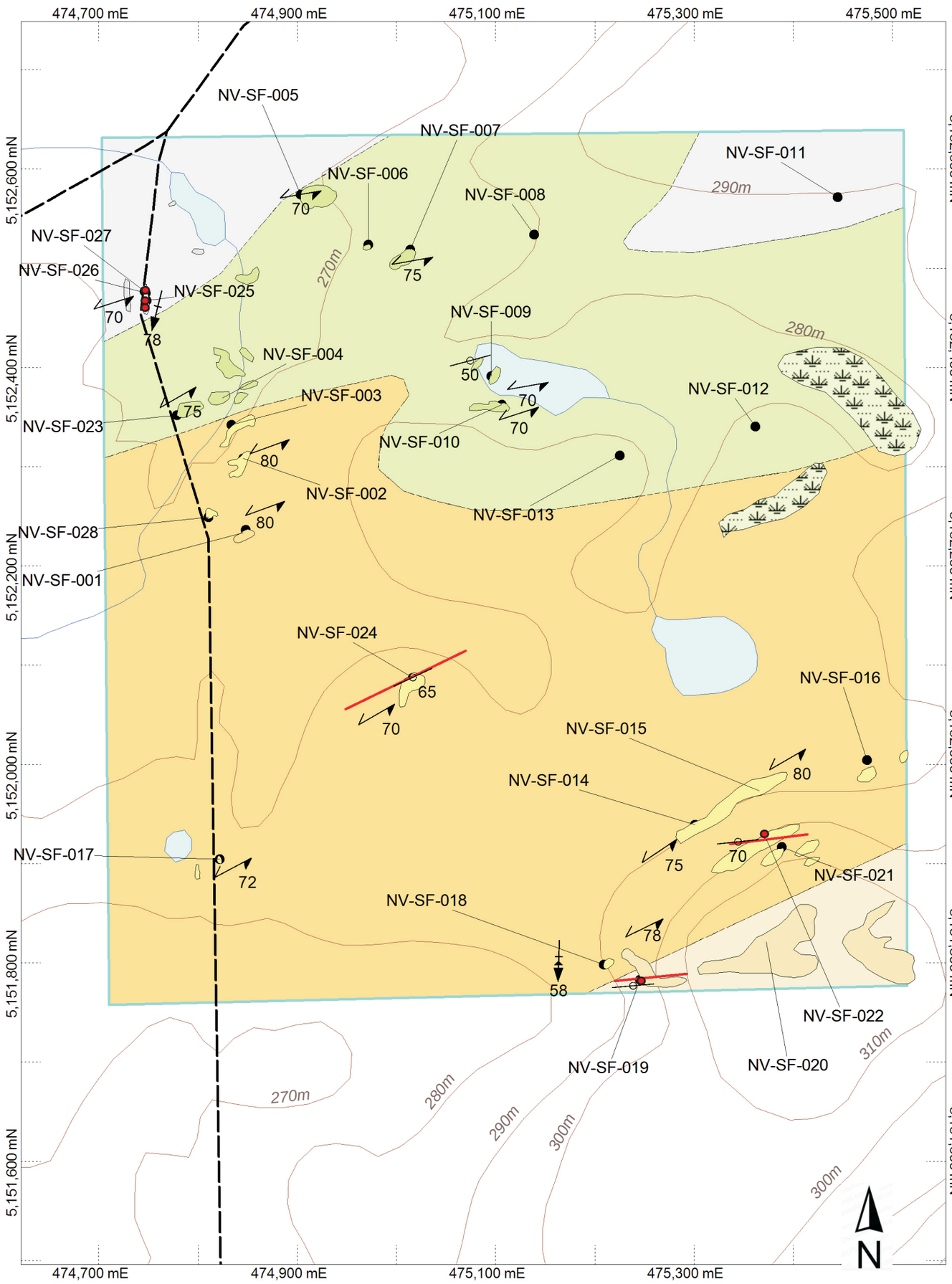
1:5,000

Legend

- North Vermilion Property
- Station Location
- Sample Location
- June 25th Traverse
- June 26th Traverse
- Maintained Road

UTM NAD 83 Zone 17U

Appendix B: Geology of the North Vermilion Property



Transition Metals

North Vermilion Property
Geology

0 100m 200m

1:5,000 *UTM NAD 83 Zone 17U*

Legend

- Intermediate Tuff
- Intermediate Lapilli Tuff
- Mafic Lapilli Tuff
- Mafic Tuff - Mudstone
- North Vermilion Property
- Quartz Vein (Trend)
- Foliation
- Lineation
- Vein Orientation
- Sample Location
- Maintained Road

Appendix C: Station Details and Locations

Station	East 83	North83	Elevation	Type	Date	Rock Type
NV-SF-001	474848	5152237	269	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-002	474845	5152308	298	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-003	474834	5152342	273	outcrop	25/05/2016	mafic tuff
NV-SF-004	474825	5152369	266	outcrop	25/05/2016	mafic tuff
NV-SF-005	474904	5152574	268	outcrop	25/05/2016	mafic volcanic Lapilli-tuff
NV-SF-006	474972	5152524	273	outcrop	25/05/2016	mafic volcanic Lapilli-tuff
NV-SF-007	475014	5152519	271	outcrop	25/05/2016	mafic volcanic Lapilli-tuff
NV-SF-008	475139	5152534	284	outcrop	25/05/2016	mafic volcanic Lapilli-tuff
NV-SF-009	475096	5152391	278	outcrop	25/05/2016	mafic volcanic Lapilli-tuff
NV-SF-010	475106	5152363	286	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-011	475445	5152572	297	outcrop	25/05/2016	mudstone
NV-SF-012	475362	5152341	278	outcrop	25/05/2016	mafic volcanic Tuff
NV-SF-013	475225	5152311	295	outcrop	25/05/2016	mafic volcanic Tuff
NV-SF-014	475301	5151939	284	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-015	475366	5151974	301	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-016	475475	5152005	294	outcrop	25/05/2016	Intermediate Lapilli-Tuff
NV-SF-017	474822	5151904	286	outcrop	26/05/2016	Intermediate Lapilli-Tuff
NV-SF-018	475209	5151798	288	outcrop	26/05/2016	Intermediate Lapilli-Tuff
NV-SF-019	475245	5151783	298	outcrop	26/05/2016	Quartz vein
NV-SF-020	475373	5151821	328	outcrop	26/05/2016	Intermediate Lapilli-Tuff
NV-SF-021	475389	5151917	328	outcrop	26/05/2016	Intermediate Lapilli-Tuff
NV-SF-022	475373	5151924	312	outcrop	26/05/2016	Quartz vein
NV-SF-023	474779	5152352	278	outcrop	26/05/2016	Mudstone
NV-SF-024	475016	5152088	279	outcrop	26/05/2016	Intermediate Lapilli-Tuff
NV-SF-025	474748	5152468	279	outcrop	26/05/2016	Mudstone
NV-SF-026	474747	5152475	274	outcrop	26/05/2016	Mudstone
NV-SF-027	474746	5152477	274	outcrop	26/05/2016	Mudstone
NV-SF-028	474810	5152249	283	outcrop	26/05/2016	Intermediate Lapilli-Tuff

Appendix D: Assay Certificates

PENDING