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ASSESSMENT REPORT

describing

GRAVITY SURVEYS AND LITHOGEOCHEMICAL SAMPLING

at the

MOR PROPERTY

MOR 1-4	YB89771-YB89774
5-8	YB91626-YB91629
9-12	YB91820-YB91823
13-52	YB92029-YB92068
53-106	YC71599-YC71652
107-224	YC72301-YC72418
225-290	YC73523-YC73588

NTS 105C/01

Latitude 60°06'N; Longitude 132°05'W

in the

Watson Lake Mining District,
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

TARSIS RESOURCES LTD.

by

W.A.Wengzynowski, P.Eng.

March 2010

CONTENTS

	<u>Page</u>
INTRODUCTION	1
PROPERTY LOCATION, CLAIM DATA AND ACCESS	1
HISTORY	1
GEOMORPHOLOGY	3
GEOLOGY	3
MINERALIZATION	5
SOIL GEOCHEMISTRY	6
2009 PROGRAM	7
DISCUSSION AND CONCLUSIONS	8
REFERENCES	10

APPENDICES

- I STATEMENT OF QUALIFICATIONS
- II LITHOGEOCHEMISTRY SAMPLING
- III CERTIFICATES OF ANALYSIS
- IV LITHOGEOCHEMISTRY REPORT BY SJP GEOCONSULTING

FIGURES

<u>No.</u>	<u>Description</u>	<u>Follows Page</u>
1	Property Location	1
2	Claim Location	1
3	Tectonic Setting	3
4	Regional Geology	3
5	Stratigraphic Column	4
6	Property Geology	4
7	Historical Copper Geochemistry	6
8	Historical Lead Geochemistry	6
9	Historical Zinc Geochemistry	6
10	Historical Silver Geochemistry	6
11	Historical Gold Geochemistry	6
12	2009 Work Area	8
13	Bouger Gravity	8
14	Gravity Voxel Model - Plan View	8
15	Gravity Voxel Model - 3D View	8

TABLES

	<u>Page</u>
I Main Lithological Units	4

INTRODUCTION

The MOR property covers a volcanic hosted massive sulphide (VHMS) prospect located in southern Yukon. Tarsis Resources Ltd. owns the property 100%.

This report describes the results of ground gravity surveys across the Discovery and SD Zones plus select lithogeochemical analyses of volcanic sequences plus associated alteration and mineralization from 2007/08 diamond drill core. All work was conducted with daily helicopter support from Teslin and/or a staging area located at the Morley River, 8 km south of the property. The program was completed between September 19-27. Exploration was funded by Tarsis and managed by Archer, Cathro & Associates (1981) Limited. The author participated in and/or supervised the work program. The author's Statement of Qualifications appears in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The MOR property consists of 290 contiguous mineral claims located in southern Yukon on NTS map sheets 105C/01 at latitude 60°06'N and longitude 132°05'W (Figure 1). The claims are registered with the Watson Lake Mining Recorder in the name of Tarsis Capital Corp. The locations of individual claims are shown on Figure 2 while claim registration data are listed below.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date *</u>
MOR 1-4	YB89771-YB89774	April 29, 2024
5-8	YB91626-YB91629	April 29, 2021
9-12	YB91820-YB91823	April 29, 2021
13-52	YB92029-YB92068	April 29, 2022
53-106	YC71599-YC71652	April 29, 2017
107-224	YC72301-YC72418	April 29, 2013
225-290	YC73523-YC73588	April 29, 2014

*Expiry dates include 2009 work which has been filed for assessment credit but not yet accepted.

The MOR property is located 35 km east of Teslin, a village that lies alongside the Alaska Highway approximately 183 km by road southeast of Whitehorse. In 2009, the mobilization to and from the property and daily crew moves were performed with a Bell 206B operated by Capital Helicopters Ltd. from Teslin and/or a staging area at the Morley River camp.

HISTORY

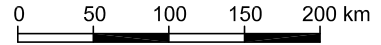
In 1980 Regional Resources Limited conducted regional scale stream sediment sampling in the MOR area and discovered a small zone of significant base and precious metal values in soil as well as a subcrop of gossanous schist (Discovery Showing), however, no claims were staked at this time. In 1997 Fairfield Minerals Ltd. revisited the area and staked four claims (MOR 1- 4) to cover the Discovery Showing. Exploration consisted of hand pitting and trenching followed

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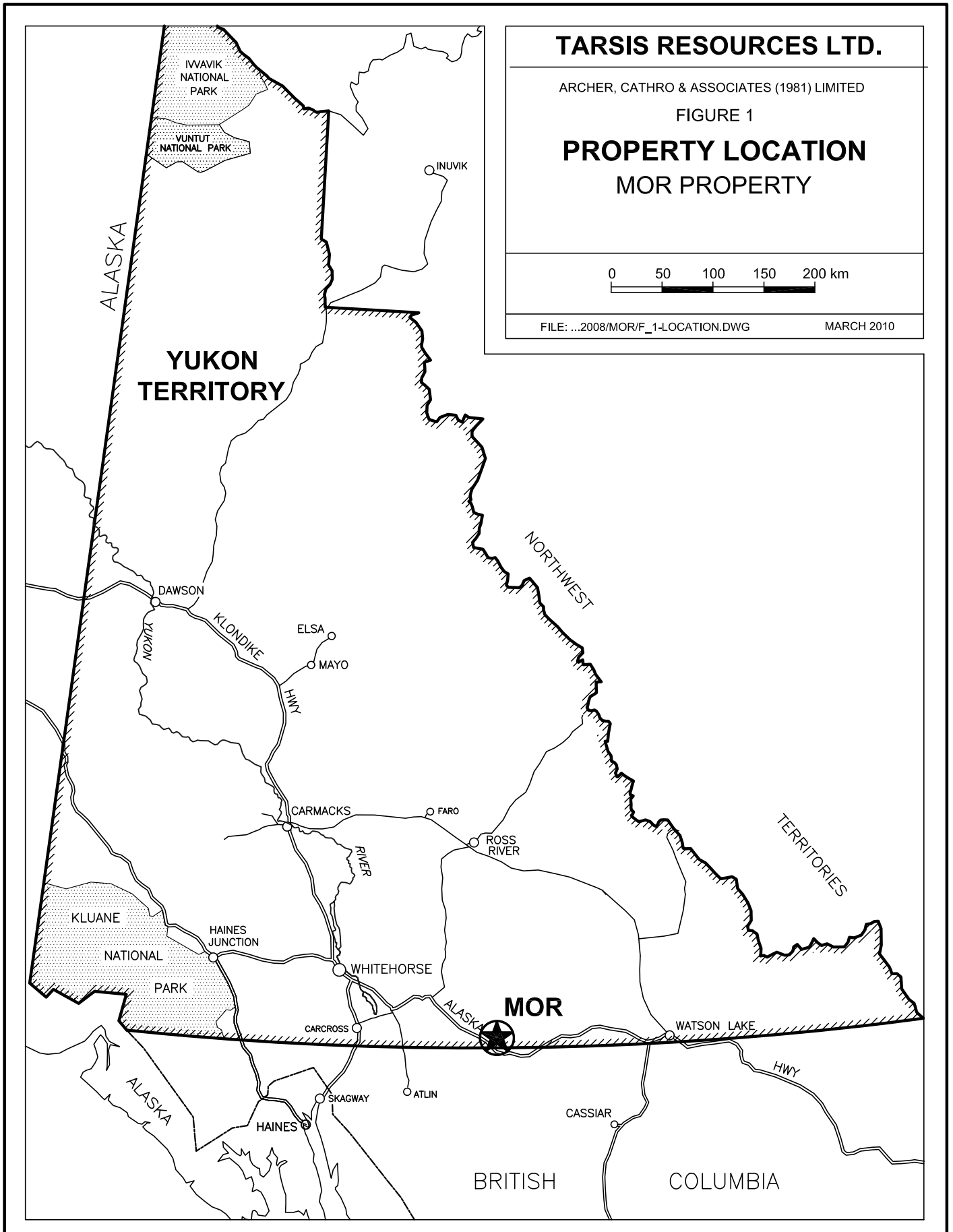
FIGURE 1

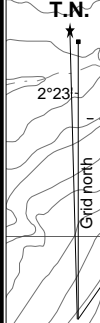
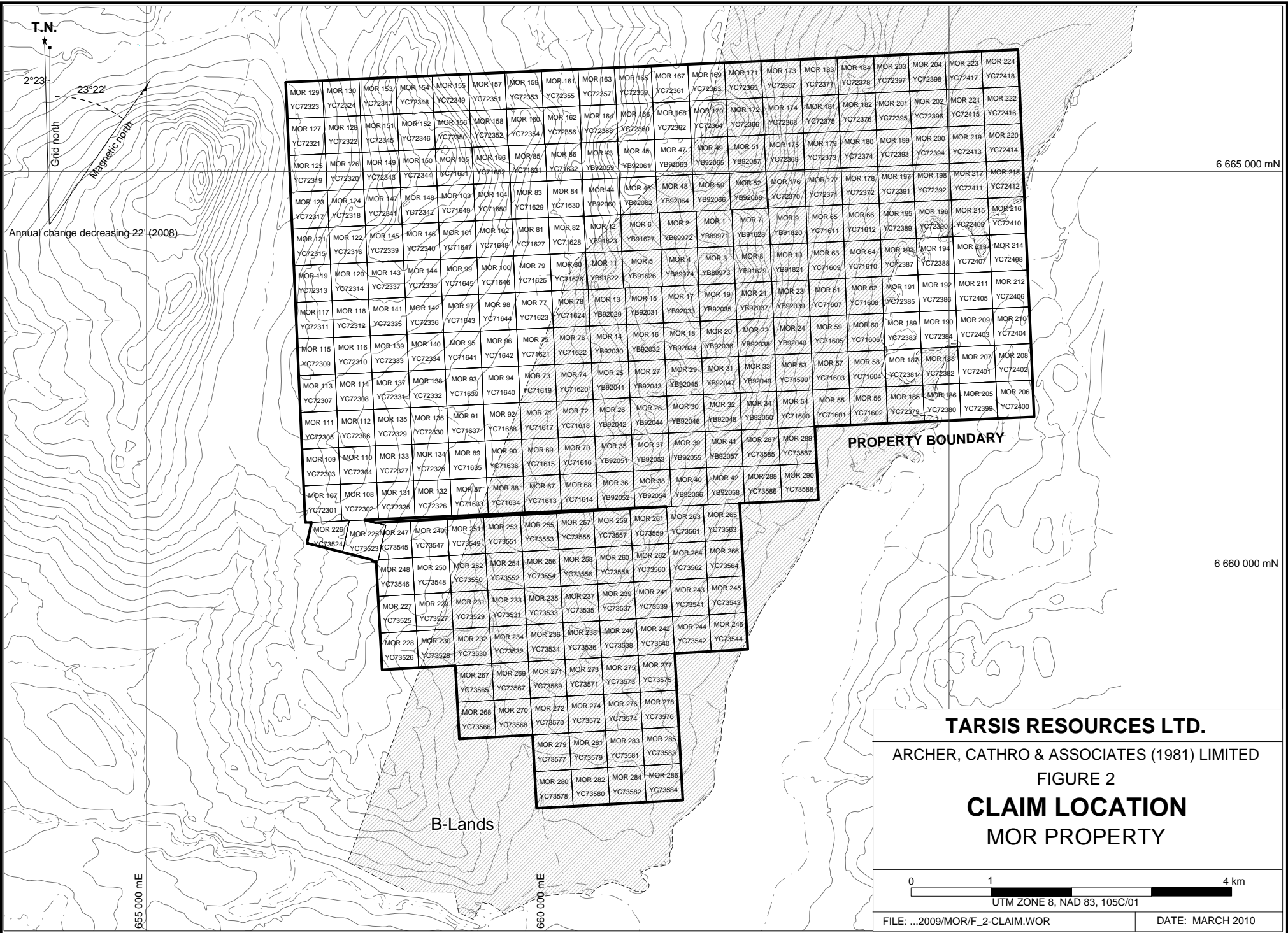
**PROPERTY LOCATION
MOR PROPERTY**



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MARCH 2010





Annual change decreasing 22' (2008)

MOR 129 YC72323	MOR 130 YC72324	MOR 153 YC72347	MOR 154 YC72348	MOR 155 YC72349	MOR 157 YC72353	MOR 158 YC72354	MOR 161 YC72355	MOR 163 YC72357	MOR 165 YC72358	MOR 167 YC72361	MOR 169 YC72363	MOR 171 YC72365	MOR 173 YC72367	MOR 183 YC72377	MOR 184 YC72378	MOR 203 YC72397	MOR 204 YC72398	MOR 223 YC72417	MOR 224 YC72418		
MOR 127 YC72321	MOR 128 YC72322	MOR 151 YC72345	MOR 152 YC72346	MOR 156 YC72350	MOR 158 YC72352	MOR 160 YC72354	MOR 162 YC72356	MOR 164 YC72358	MOR 166 YC72360	MOR 168 YC72362	MOR 170 YC72364	MOR 172 YC72366	MOR 174 YC72368	MOR 181 YC72375	MOR 182 YC72376	MOR 201 YC72395	MOR 202 YC72396	MOR 221 YC72415	MOR 222 YC72416		
MOR 125 YC72319	MOR 126 YC72320	MOR 149 YC72343	MOR 150 YC72344	MOR 155 YC71651	MOR 156 YC71652	MOR 158 YC71654	MOR 160 YC71656	MOR 162 YC71658	MOR 164 YB92059	MOR 166 YB92061	MOR 168 YB92063	MOR 170 YB92065	MOR 172 YB92067	MOR 175 YC72373	MOR 176 YC72374	MOR 180 YC72377	MOR 181 YC72378	MOR 199 YC72393	MOR 200 YC72394	MOR 219 YC72413	MOR 220 YC72414
MOR 125 YC72317	MOR 124 YC72318	MOR 147 YC72341	MOR 148 YC72342	MOR 103 YC71649	MOR 104 YC71650	MOR 83 YC71629	MOR 84 YC71630	MOR 44 YB92060	MOR 46 YB92062	MOR 48 YB92064	MOR 50 YB92066	MOR 52 YB92068	MOR 176 YC72370	MOR 177 YC72371	MOR 178 YC72372	MOR 197 YC72391	MOR 198 YC72392	MOR 217 YC72411	MOR 218 YC72412		
MOR 121 YC72315	MOR 122 YC72316	MOR 145 YC72339	MOR 146 YC72340	MOR 101 YC71647	MOR 102 YC71648	MOR 81 YC71627	MOR 82 YC71628	MOR 12 YB91823	MOR 6 YB91827	MOR 2 YB98972	MOR 1 YB98971	MOR 7 YB91829	MOR 9 YB91820	MOR 65 YC71611	MOR 66 YC71612	MOR 195 YC72389	MOR 196 YC72390	MOR 215 YC72409	MOR 216 YC72410		
MOR 119 YC72313	MOR 120 YC72314	MOR 143 YC72337	MOR 144 YC72338	MOR 98 YC71645	MOR 100 YC71647	MOR 79 YC71625	MOR 80 YC71626	MOR 11 YB91822	MOR 5 YB91826	MOR 4 YB89974	MOR 3 YB89973	MOR 8 YB91829	MOR 10 YB91821	MOR 63 YC71609	MOR 64 YC71610	MOR 194 YC72387	MOR 194 YC72388	MOR 213 YC72407	MOR 214 YC72408		
MOR 117 YC72311	MOR 118 YC72312	MOR 141 YC72335	MOR 142 YC72336	MOR 97 YC71643	MOR 98 YC71644	MOR 77 YC71623	MOR 78 YC71624	MOR 13 YB92029	MOR 15 YB92031	MOR 17 YB92033	MOR 19 YB92035	MOR 21 YB92037	MOR 23 YB92039	MOR 61 YC71608	MOR 62 YC71609	MOR 191 YC72385	MOR 192 YC72386	MOR 211 YC72405	MOR 212 YC72406		
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MOR 111 YC72305	MOR 112 YC72306	MOR 135 YC72329	MOR 136 YC72330	MOR 91 YC71637	MOR 92 YC71638	MOR 71 YC71617	MOR 72 YC71618	MOR 26 YB92042	MOR 28 YB92044	MOR 30 YB92046	MOR 32 YB92048	MOR 34 YB92050	MOR 54 YC71600	MOR 55 YC71601	MOR 187 YC72381	MOR 188 YC72382	MOR 207 YC72401	MOR 208 YC72402			
MOR 109 YC72303	MOR 110 YC72304	MOR 133 YC72327	MOR 134 YC72328	MOR 89 YC71635	MOR 90 YC71636	MOR 69 YC71615	MOR 70 YC71616	MOR 35 YB92051	MOR 37 YB92053	MOR 39 YB92055	MOR 41 YB92057	MOR 41 YB92057	MOR 287 YC73585	MOR 288 YC73586	MOR 289 YC73587	MOR 290 YC73588	MOR 291 YC73589	MOR 292 YC73590	MOR 293 YC73591		
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MOR 248 YC73546	MOR 249 YC73547	MOR 252 YC73550	MOR 254 YC73552	MOR 256 YC73554	MOR 258 YC73556	MOR 260 YC73558	MOR 262 YC73560	MOR 264 YC73562	MOR 266 YC73564	MOR 268 YC73566	MOR 270 YC73568	MOR 272 YC73570	MOR 274 YC73572	MOR 276 YC73574	MOR 278 YC73576	MOR 280 YC73578	MOR 282 YC73580	MOR 284 YC73582	MOR 286 YC73584		
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MOR 267 YC73565	MOR 268 YC73566	MOR 269 YC73567	MOR 270 YC73568	MOR 271 YC73569	MOR 272 YC73570	MOR 273 YC73571	MOR 274 YC73572	MOR 275 YC73573	MOR 276 YC73574	MOR 277 YC73575	MOR 278 YC73576	MOR 279 YC73577	MOR 280 YC73578	MOR 281 YC73579	MOR 282 YC73580	MOR 283 YC73581	MOR 284 YC73582	MOR 285 YC73583	MOR 286 YC73584		

6 665 000 mN

6 660 000 mN

PROPERTY BOUNDARY

B-Lands

TARSIS RESOURCES LTD.
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 FIGURE 2
CLAIM LOCATION
MOR PROPERTY

0 1 4 km
 UTM ZONE 8, NAD 83, 105C/01

FILE: ...2009/MOR/F_2-CLAIM.WOR DATE: MARCH 2010

655 000 mE

660 000 mE

by reconnaissance scale prospecting and silt, rock and soil sampling across the entire property. In 1998 Fairfield staked an additional 8 claims (MOR 5-12) and carried out grid soil sampling, and ground magnetic and VLF-EM geophysical surveys. Limited blast trenching, prospecting and reconnaissance rock sampling were also conducted in the area of the Discovery Showing.

In 1999 the property was optioned to Brett Resources Inc. who staked an additional 40 claims (MOR 13-52). Exploration consisted of geochemical sampling (22 line km/442 samples), property wide geological mapping at 1:10,000 scale, and detailed geological mapping (1:1500) in areas of known mineralization. In December 1999 Brett relinquished its option due to a corporate merger and shift in exploration focus.

Field work by Fairfield in 2000 consisted of additional grid soil sampling and ground magnetic and VLF-EM surveys, in conjunction with detailed grid-based soil profile and bedrock sampling by portable power augur. The following summer, geochemically anomalous areas were followed up by a series of in-fill auger sampling lines and prospecting. A total of 1223 samples were collected for multi-element analysis. This work identified a linear east trending band of anomalous copper, lead and zinc-in-soil up to 2000 m long centered on the Discovery Showing.

In 2002 Fairfield was amalgamated with Almaden Resources Corporation to form Almaden Minerals Ltd. and the MOR mineral title was subsequently transferred.

In 2003 Kobex Resources Ltd. acquired a 60 % interest in the MOR property and in 2004 conducted a two phase work program, consisting of an induced polarization (IP) geophysical survey followed by a two hole diamond drilling program. Results confirmed the presence of sub economic VMS style mineralization (Discovery Horizon), however, Kobex elected to return the property to Almaden in September 2005.

Tarsis purchased the property from Almaden in April 2007 and proceeded with a four hole drill program, coarse wide spaced soil sampling and 285 line km of helicopter borne Versatile Time Domain Electromagnetic surveys. Diamond drilling was focused at the Discovery Horizon following up the intersections reported by Kobex and confirming the geometry of the system. The drilling encountered gently dipping massive sulphide in two to three stacked horizons beneath the near surface historical intersections and traced the mineralization along strike for 300 m. VTEM surveys identified a series of intermittent conductors coincident with the projected surface trace of the Discovery Horizon in the northern part of the property traceable for over 5 km. Another isolated but fairly intense anomaly was identified 2 km south of the Discovery Horizon.

In 2008 Tarsis expanded the claim block significantly to cover potential for mineralization higher in the stratigraphic sequence. VTEM surveys were flown to cover the additional claims and soil sampling, mapping, prospecting, diamond drilling and orientation style ground gravity surveys were conducted. Ground supported exploration focused largely on extending the known mineralization along strike to the east and downdip at the Discovery Horizon. This exploration returned mixed results and suggested the sulphide horizons are locally folded/displaced and/or thinning distally from the vent. Cursory gravity surveys identified a 1 mg anomaly directly overtop the thickest accumulation of sulphide cut in 2007.

Work in 2008 also discovered a new area of mineralization 2 km southwest of the Discovery Zone referred to as the SD Zone. At this locale, semi-massive sulphide is hosted in strongly chlorite altered stacked or fold repeated volcanoclastic units. Two diamond drill holes spaced approximately 200 m apart encountered narrow intervals of sulphide bearing volcanoclastic tuff. Cursory gravity surveys across the mineralized zone identified a localized 1 mg anomaly inferred to represent potential mineralization in a lower stratigraphic sequence not tested.

GEOMORPHOLOGY

The property lies along the northwestern flank of the Cassiar Mountains. It is mostly situated between Mount Morley to west and the Morley River Valley to the east and encompasses two moderately steep north trending ridges that are linked by a narrow upland valley. Local topography is subdued with local elevations ranging from 900 m in the valley bottom to 1400 m atop the westernmost ridge. The best exposures are on glacially scoured hummocks along the ridge crest and on oversteepened hillsides where soil has been washed away.

A small, unnamed lake surrounded by marshland is located in the centre of the property. This lake is fed by tributaries of Hassell Lake from the north and by numerous small creeks and streams that drain from the upper ridge crests that surround it. Creeks draining from the ridge on the eastern half of the property form tributaries of the Morley River which is part of the Yukon River watershed.

Much of the claim block is well vegetated with spruce, balsam, pine, alder, and tamarack on hillsides with willow occurring along creeks and in marshes. Treeline in the vicinity of the MOR property occurs at 1450 m.

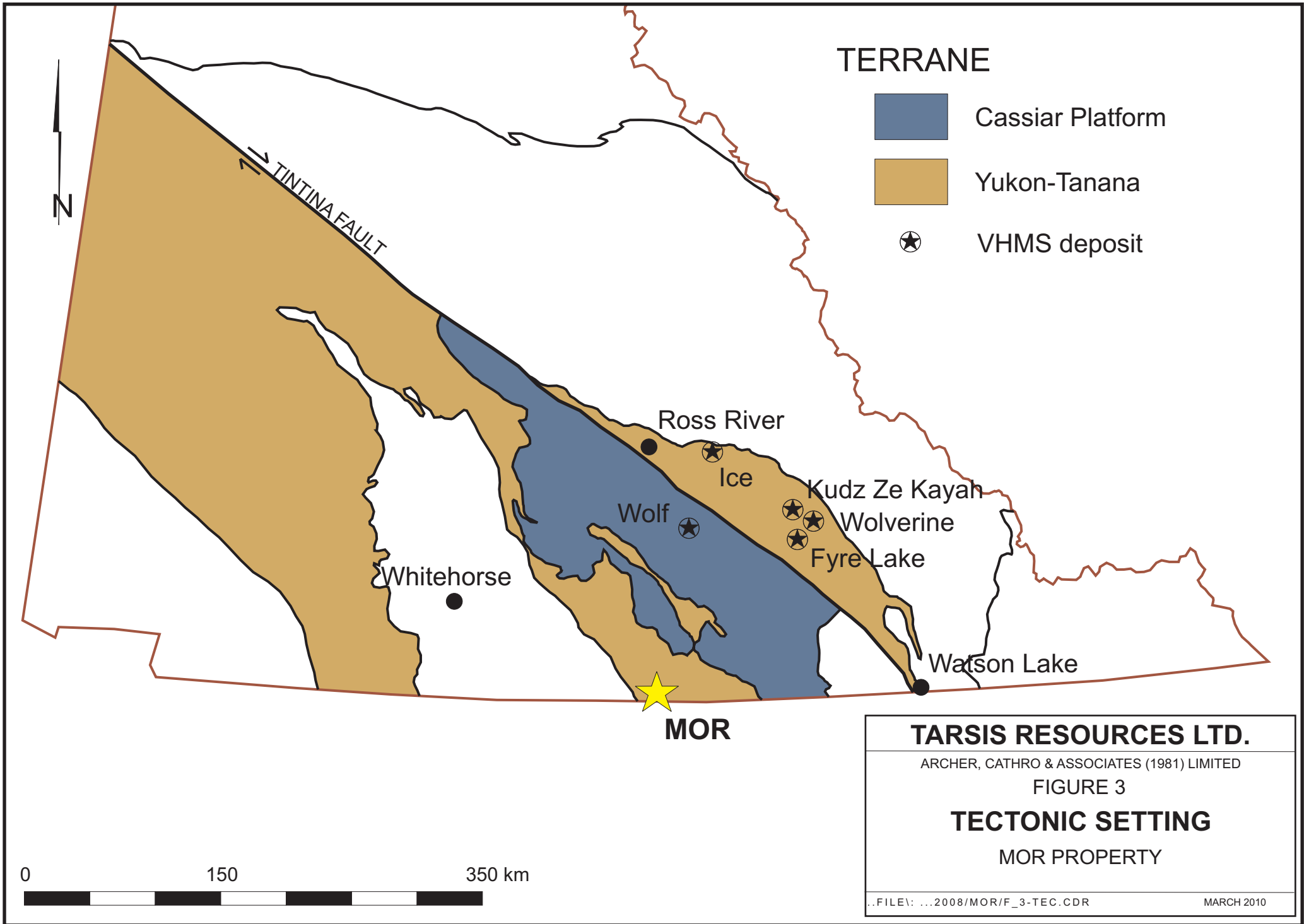
GEOLOGY

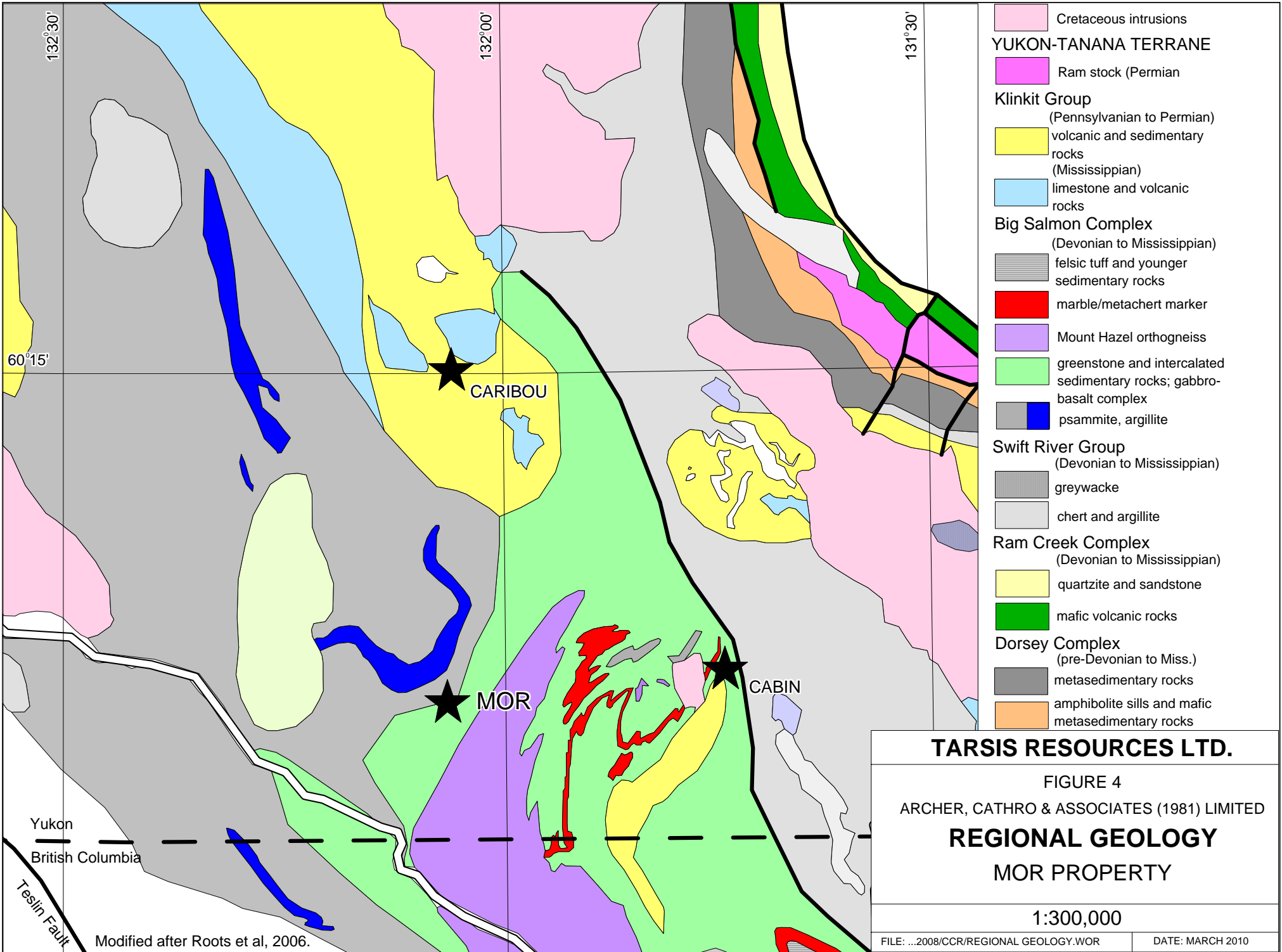
Regional Geology

The property lies within a belt of Yukon-Tanana Terrane rocks on the southwest side of the Tintina Fault Zone (Figure 3). Yukon-Tanana Terrane rocks underlie much of west-central Yukon, including a displaced block immediately northeast of the Tintina Fault Zone referred to as the Finlayson Lake District, which hosts a number of VHMS deposits and prospects.

The most recent classification of the Yukon-Tanana Terrane southwest of the Tintina Fault Zone near the B.C.-Yukon border was addressed in a special paper published by the Geological Association of Canada, 2006. This portion of the cordillera is segregated into three belts referred to as the eastern, central and western belts (Roots et al., 2006) and all three belts comprise stratigraphy associated with Permian and older sedimentation, arc related volcanism and coeval intrusions. Stratigraphy within all belts has been intruded by Eocene to early Jurassic intrusions.

The western belt hosts the MOR property and is bound by the strike-slip Teslin Fault to the west and an unnamed fault to the northeast (Figure 4). Stratigraphic units belong mostly to the Big Salmon Complex and comprise bimodal arc-volcanic rocks, phyllite, siliceous metasedimentary





rocks and minor carbonate units. Coeval orthogneiss is common throughout the sequence and ranges in age from late Devonian to Jurassic. The upper portion of the volcanic sequence of the Big Salmon Complex is marked by a rose coloured manganiferous metachert believed to represent an exhalative volcanic pulse (Mihalynuk et al, 2006). The metavolcanic rocks of the Big Salmon Complex are considered age equivalent to the Finlayson Assemblage northeast of the Tintina Fault Zone (Colpron et al, 2006). The magnetic cycles associated with these rocks span upper Devonian to mid Mississippian and are age equivalent to the Finlayson and Wolverine Magmatic Cycles (Figure 5).

Klinkit Group unconformably overlies stratigraphy of the Big Salmon Complex. It consists of pale coloured marble and intermediate to mafic tuffs plus volcanic-derived metasedimentary rocks, with lesser volcanic flows, quartz sandstone and interlayered dark siltstone. Volcanic rocks are more abundant near the base of the succession. These sequences were deposited between Middle Mississippian and Permian.

The main lithologies in the vicinity of the MOR property are summarized on the Table I.

Table I: Main Lithological Units

<u>Quarternary</u> Overburden	Glacial till, lateral and terminal moraines and glaciofluvial outwash
<u>Mid-Cretaceous or Early Tertiary</u> Cassiar Suite	Granodiorite and biotite-quartz monzonite porphyry
<u>Pennsylvanian to Permian</u> Klinkit Group	Volcaniclastic and sedimentary rocks
<u>Mississippian</u> Klinkit Group	Limestone and volcanic rocks
<u>Devonian to Mississippian</u> Big Salmon Complex	Mount Hazel orthogneiss
	Greenstone and intercalated sedimentary rocks

(Roots et al, 2006)

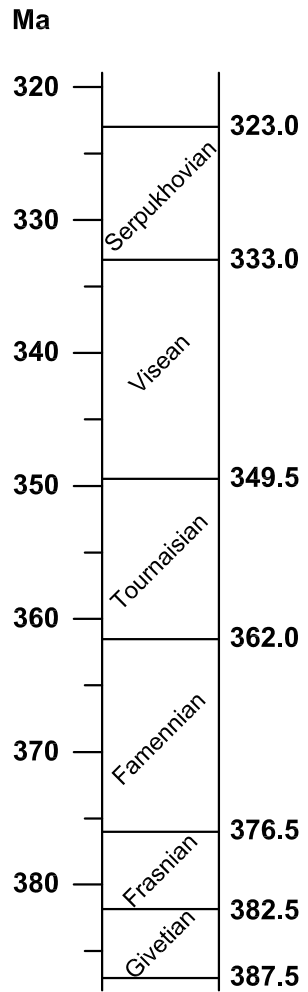
Property Geology

The MOR property is mostly underlain by mafic and felsic metavolcaniclastic rocks of the Devono-Mississippian Big Salmon Complex (Figure 6). Much of the stratigraphic descriptions below are based on previous authors (Ritcey and Balon, 1998) descriptions plus traverses and drill core inspection by the current author.

The MOR property is underlain by a thick sequence of pale green-grey chlorite±quartz schist of which the protolith is interpreted to be primarily mafic to intermediate volcaniclastic tuff. These rocks contain varying amounts of layer parallel quartz and feldspar. Quartzite/chert is observed locally as interbeds within the mafic dominated succession but never sufficiently thick enough to form a mappable unit. All rocks are strongly deformed and have a pervasive schistosity which generally strikes east and dips moderately to the south. The sequence has been significantly thickened by tight high amplitude folds, which are observed in outcrop scale and drill core. Metamorphic grade is middle greenschist facies. This assemblage of dominantly mafic

MISSISSIPPIAN

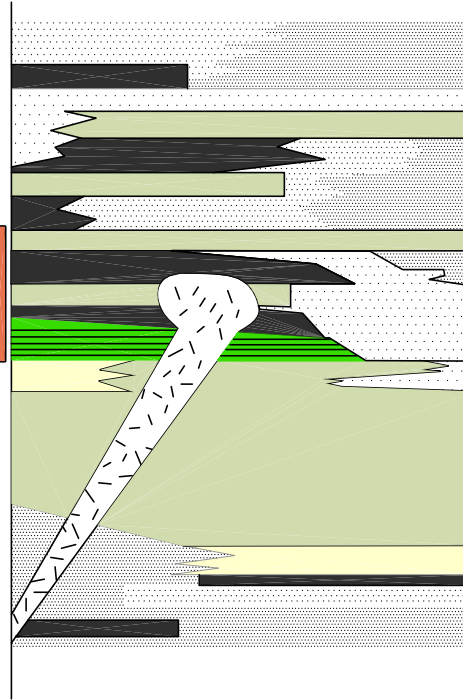
DEVONIAN



WOLVERINE
MAGMATIC
CYCLE

FINLAYSON
MAGMATIC
CYCLE

MOR?



KLINKIT
ASSEMBLAGE

FINLAYSON
ASSEMBLAGE
(clastic dominated)

FINLAYSON
ASSEMBLAGE
(volcanic dominated)

SNOWCAP
ASSEMBLAGE

MAP UNIT

CPk

DMFs

DMFvi, DMFvf

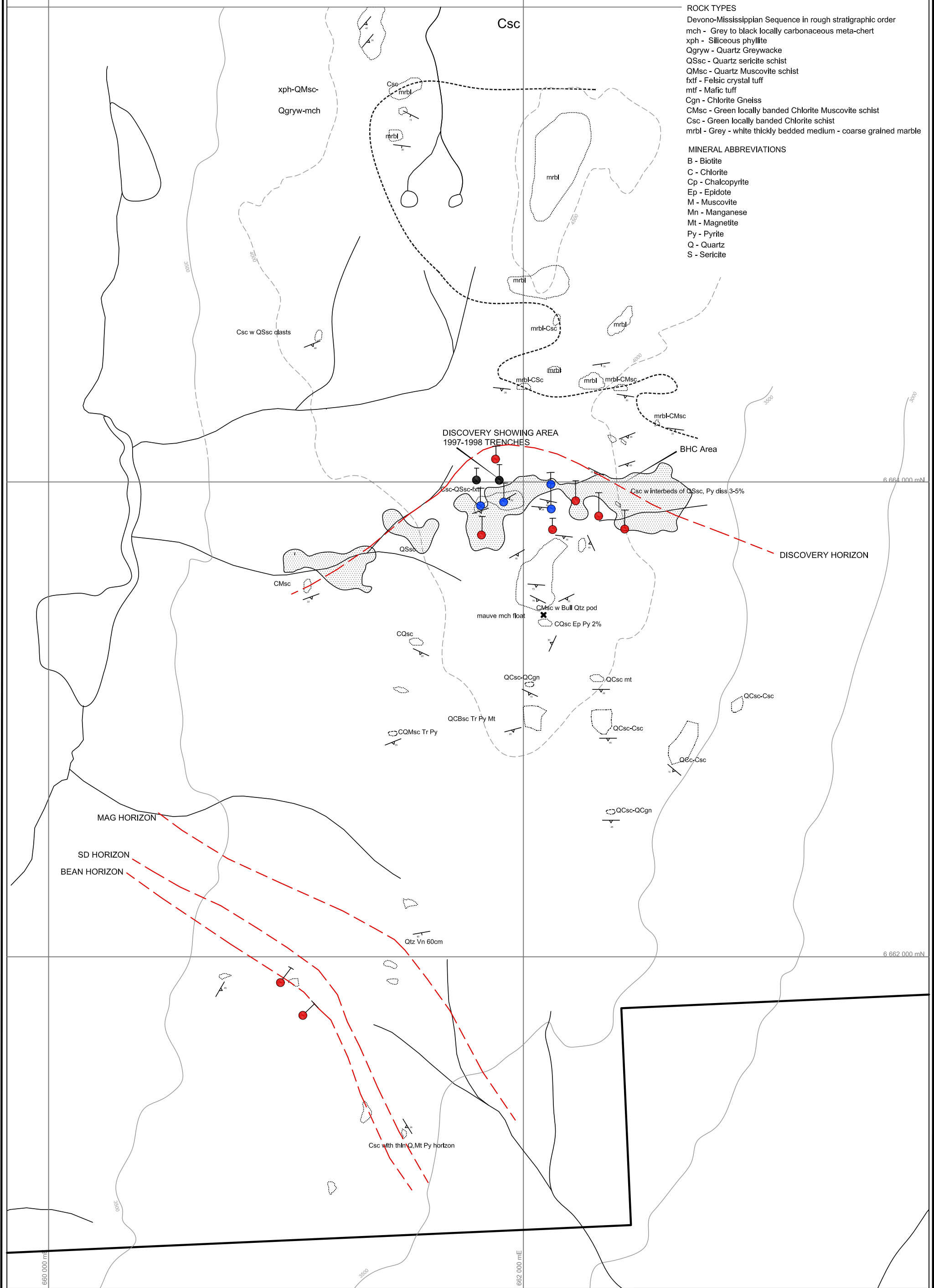
Ds

- lower to mid Mississippian granite
- exhalite (manganiferous "crinkle" chert)
- felsic volcanic sequence
- mafic to intermediate volcanic sequence
- marble
- conglomerate
- quartzite
- psammite

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FIGURE 5
STRATIGRAPHIC COLUMN
YUKON TANANA TERRANE
TESLIN AREA
 YUKON AND NORTHERN BRITISH COLUMBIA

after Mihalynuk et al (2000)

- ROCK TYPES**
 Devono-Mississippian Sequence in rough stratigraphic order
 mch - Grey to black locally carbonaceous meta-chert
 xph - Siliceous phyllite
 Qgryw - Quartz Greywacke
 QSsc - Quartz sericite schist
 QMsc - Quartz Muscovite schist
 fxtf - Felsic crystal tuff
 mtf - Mafic tuff
 Cgn - Chlorite Gneiss
 CMsc - Green locally banded Chlorite Muscovite schist
 Csc - Green locally banded Chlorite schist
 mrbl - Grey - white thickly bedded medium - coarse grained marble
- MINERAL ABBREVIATIONS**
 B - Biotite
 C - Chlorite
 Cp - Chalcopyrite
 Ep - Epidote
 M - Muscovite
 Mn - Manganese
 Mt - Magnetite
 Py - Pyrite
 Q - Quartz
 S - Sericite



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FIGURE 6
PROPERTY GEOLOGY
MOR PROPERTY

0 0.5 1.0 km
 UTM ZONE 8, NAD83
 105C01
 FILE: ...2008/MOR/F_5-GEO.DWG DATE: MARCH 2010

- - - - Geological Contact
 ——— Creek
 - - - - Elevation Contour (Feet)
 ○ Bedrock Exposure
 — Strike and Dip of Bedding and Foliation
 ● Rock Sample Location
Note: MOR9-R12, R13 not shown as they are outside the map area
 Main Soil Geochemical Anomaly (Cu±Pb±Zn±Ag±Au)

● 2004 Drill hole
 ● 2007 Drill hole
 ● 2008 Drill hole

metavolcanic rocks is suggested to correlate with the “greenstone sequence” of the Big Salmon Complex mapped by Mihalynuk et al. (1998).

Metavolcaniclastic stratigraphy contains coeval pale grey to white orthogneiss sills that are texturally sucrosic and very difficult to distinguish from some felsic and intermediate volcaniclastic rocks. The orthogneiss likely evolved from a fairly fine grained intrusive as the augen are virtually non existent.

Basement stratigraphy in the northeast portion of the property consists of grey-white, thickly bedded, medium- to coarse-grained limestone/marble. This unit is gently southward dipping and appears to be conformable with the overlying volcaniclastic sequence described above. Bedding attitudes strike east and dip south approximately 30°.

A single traverse to the north of the limestone unit (outside the northern MOR claim boundary) revealed a third mappable geological unit comprising a highly variable sequence of grey, siliceous, phyllitic metasediments with interbedded 1-10 m thick, dark grey to black, carbonaceous cherts. This unit strikes to the northeast and dips to the southeast.

An inferred stratigraphic column for the Teslin area is shown on Figure 6 based on observations by Nelson et al., 2000 and postulates the relative position of the MOR mineralization. This theory is partly supported by geochronological results from select MOR drill core in late 2007 which yielded a morphologically simple population of zircon, permissive of magmatic origin yielding Devono-Mississippian dates between 347 and 365 Ma (M. Colpron pers. comm., 2008).

MINERALIZATION

VHMS style mineralization occurs within two parts of the MOR property. The Discovery Horizon is located in the northern part of the claim block and has been the primary focus of exploration. Several new mineralized outcrops were located in 2008 approximately 2 km south of the Discovery Horizon and collectively they are referred to as the SD Zone. Most parts of the property are heavily vegetated with rare outcrop and subcrop exposure.

Mineralization at the Discovery Horizon consists of medium- and coarse-grained massive and semi-massive sulphide comprised dominantly of pyrite. The most common accessory sulphide is chalcopyrite which occurs as interstitial grains and blebby aggregates within a pyrite dominant matrix. Sphalerite and galena are rarely observed as trace disseminations.

Massive and semi-massive sulphide horizons are stacked within an envelope of mafic dominant volcaniclastic stratigraphy that is weakly to moderately mineralized with coarse disseminated pyrite and rare chalcopyrite. Medium- to coarse-grained magnetite is irregularly disseminated throughout the stratigraphic column. Alteration associated with the volcaniclastic rocks is dominated by a combination of pale to medium green chlorite and sericite. Darker chlorite is developed nearer the massive sulphide sections and narrow felsic volcaniclastic pulses coincide with some of the stronger mineralization.

The SD Zone is defined by three or more northwest trending, gently southwest dipping sulphide and/or oxide bearing mafic and felsic metavolcanic horizons in the southern portion of the claim

block. Three distinct horizons have been identified within a 250 m thick package of bimodal mafic and felsic metavolcaniclastic stratigraphy and they are referred to as the Mag, SD and Bean Horizons.

Sulphides at the SD and Bean Horizons are dominated by thinly laminated and strongly magnetic pyrrhotite with lower concentrations of blebby interstitial and disseminated chalcopyrite. Coarse pyrite is less common than pyrrhotite at the SD Horizon and visa versa at the Bean Horizon. Where pyrite is present it occurs as foliation parallel grains and aggregates. Magnetite is present as fine grained massive bands and medium- to coarse grains. The Mag Horizon is characterized by medium to coarse disseminated magnetite and minor amounts of coarse foliation parallel pyrite.

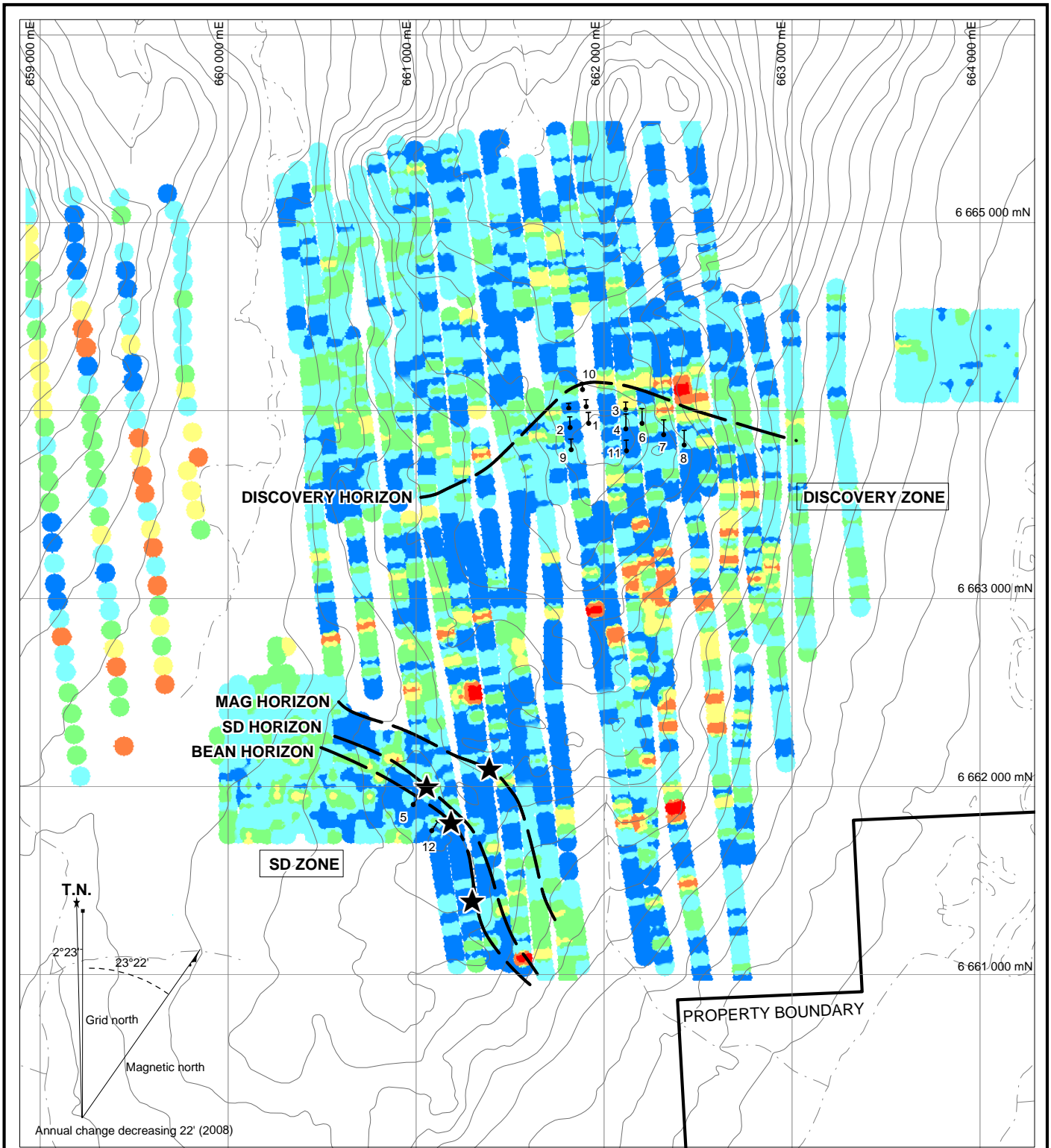
In general, sulphide and magnetite-rich horizons at the SD Zone are developed within locally mafic volcaniclastic units that appear to have been subjected to fairly intense hydrothermal alteration.

SOIL GEOCHEMISTRY

The combined results for all soil geochemical surveys on the property (copper, lead, zinc, silver and gold) are shown on Figures 7 through 11 respectively. They highlight a pronounced, coincident, easterly trending copper-lead-zinc-silver anomaly for roughly 2500 m along the surface trace of the Discovery Horizon. Copper, lead and zinc exhibit the strongest contrast relative to the property background values. Response for all VHMS indicator elements is subdued on the VTEM grid over Anomaly D at the eastern end of the Discovery Horizon but this is not surprising considering the extensive organic and till cover at lower elevations near the Morley River.

Geochemical response in the vicinity of the SD Zone is spotty. The three known mineralized trends best coincide with a number of intermittent copper (up to 721 ppm) and silver (up to 2.6 ppm) point anomalies scattered along a 1500 m strike length. Lead and zinc response in this area is subdued.

Sampling just above the creek valley 1000 m west of the Discovery Horizon and the SD Zone in 2007 identified copper-in-soil geochemical anomalies with peak values up to 448 ppm copper contained within broad zones up 500 m wide and 750 m long. The highest values are centred adjacent to the upland lake in the centre of the claim block and form a roughly northwesterly trend. A secondary cluster of strongly to moderately anomalous response occurs along the slope of the western ridge. The northernmost of the anomalies coincides with the projected surface trace of the Discovery Horizon and also coincides with one of four EM conductors identified by the 2007 airborne VTEM survey. None of these anomalies have been fully delineated but prospecting the area in 2008 discovered pyritic felsic volcaniclastic talus in the vicinity of the VTEM anomaly.



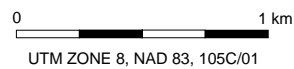
Copper (ppm)

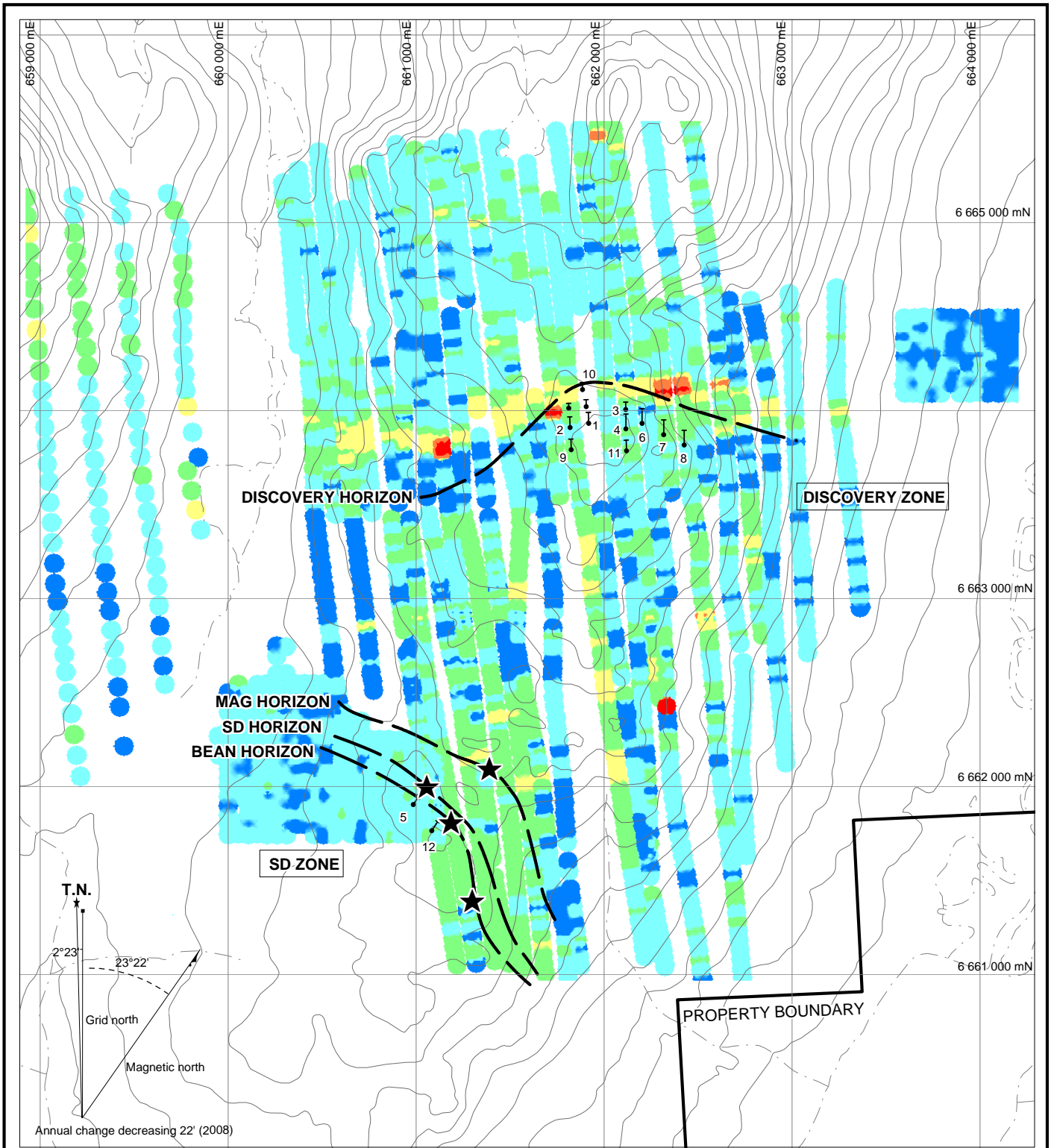
- Red: ≥ 500
- Orange: $\geq 200 < 500$
- Yellow: $\geq 100 < 200$
- Light Green: $\geq 50 < 100$
- Cyan: $\geq 25 < 50$
- Blue: $\geq 0 < 25$

- Diamond drill hole
- Mineralized horizon
- Mineralized showing

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FIGURE 7
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
HISTORICAL COPPER GEOCHEMISTRY
 MOR PROPERTY



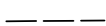


Lead (ppm)

- ≥100
- ≥50 <100
- ≥20 <50
- ≥10 <20
- ≥5 <10
- ≥0 <5



Diamond drill hole



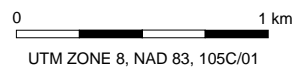
Mineralized horizon

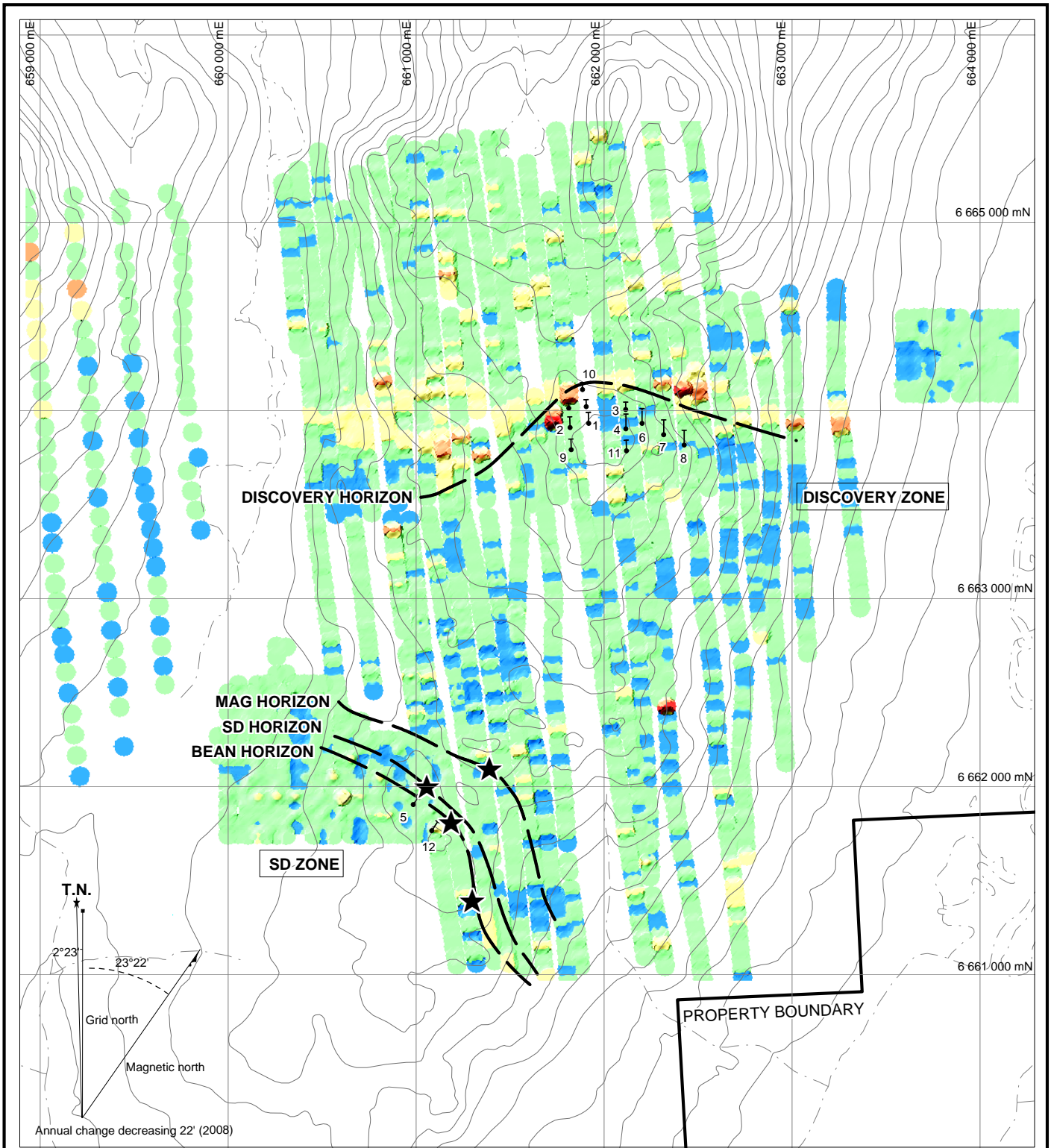


Mineralized showing

TARSIS RESOURCES LTD.

FIGURE 8
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
 HISTORICAL LEAD GEOCHEMISTRY
 MOR PROPERTY



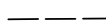


Zinc (ppm)

- Red square: ≥ 500
- Orange square: $\geq 200 < 500$
- Yellow square: $\geq 100 < 200$
- Green square: $\geq 50 < 100$
- Blue square: $\geq 0 < 50$



Diamond drill hole



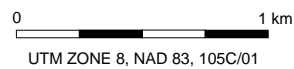
Mineralized horizon

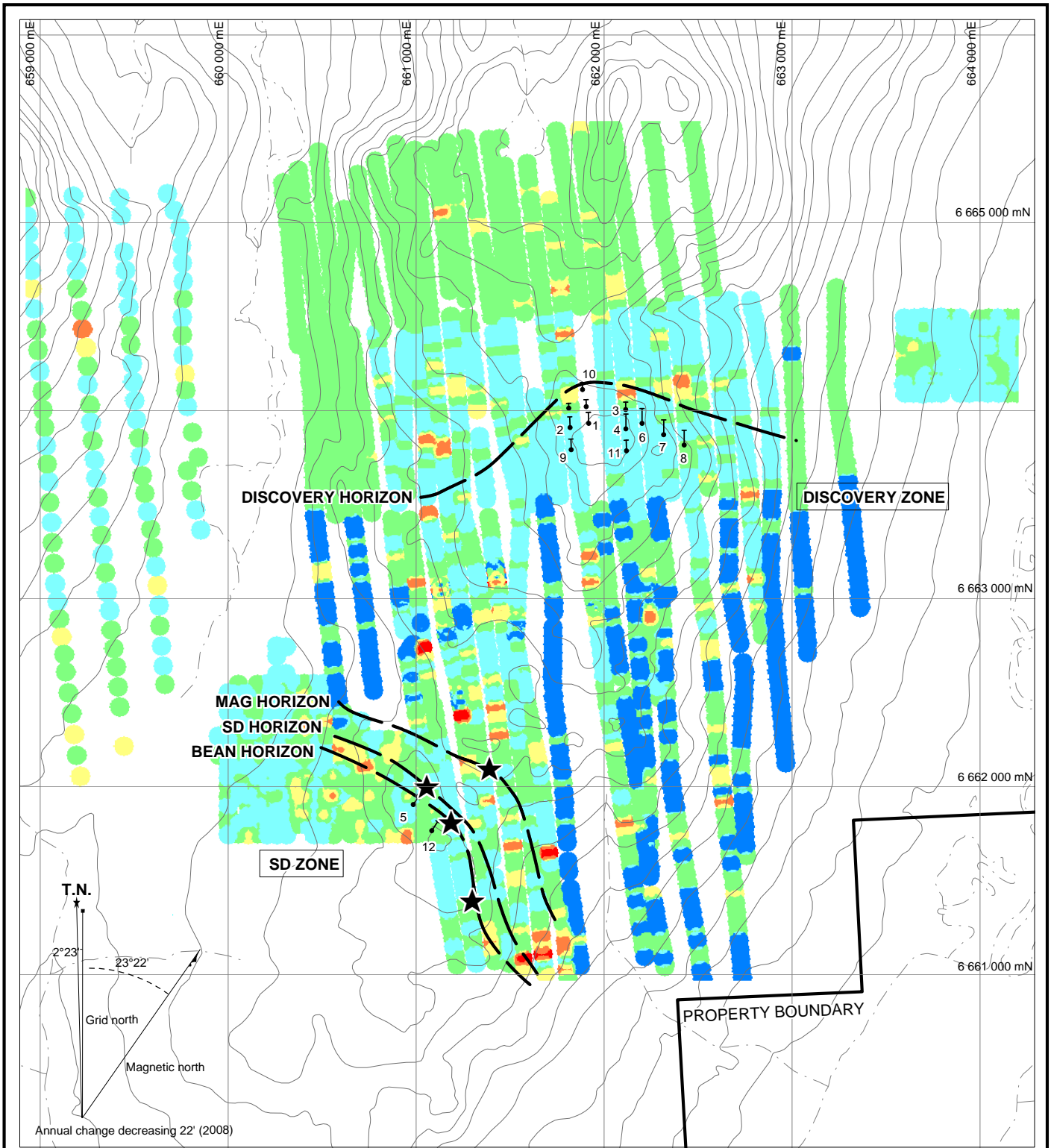


Mineralized showing

TARSIS RESOURCES LTD.

FIGURE 9
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
HISTORICAL ZINC GEOCHEMISTRY
MOR PROPERTY





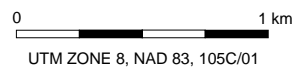
Silver (ppm)

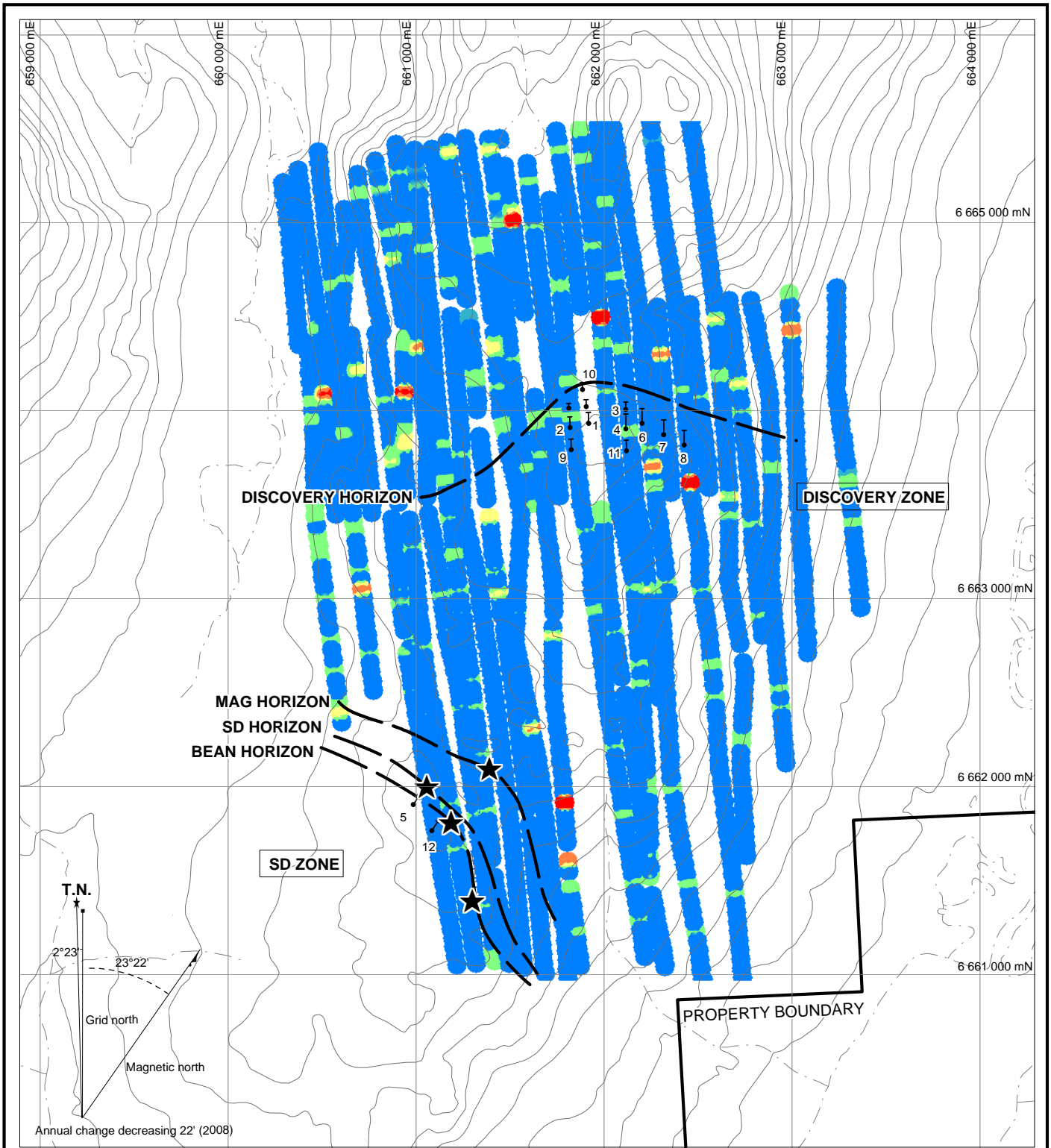
- ≥ 2.0
- $\geq 1.0 < 2.0$
- $\geq 0.5 < 1.0$
- $\geq 0.2 < 0.5$
- $\geq 0.1 < 0.2$
- $\geq 0 < 0.1$

- — | Diamond drill hole
- — — Mineralized horizon
- ★ Mineralized showing

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FIGURE 10
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
 HISTORICAL SILVER GEOCHEMISTRY
 MOR PROPERTY





Gold (ppb)

- ≥100
- ≥50 <100
- ≥25 <50
- ≥10 <25
- ≥0 <10



Diamond drill hole



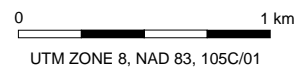
Mineralized horizon



Mineralized showing

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FIGURE 11
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
HISTORICAL GOLD GEOCHEMISTRY
MOR PROPERTY



Another cluster of weak to moderate response occurs to the southwest of the lake in a low-lying marshy area. Many of the proposed sites in this part of the property were not sampled due the absence of proper soil development and abundant organic material.

2009 PROGRAM

Lithogeochemistry

Lithogeochemical sampling of key stratigraphic units, alteration and mineralization was conducted on drill core from three holes representing the Discovery Horizon and two holes at the SD Horizon. The sampling was carried out to evaluate the primary chemostratigraphic characteristics of the host volcanic rocks at both target areas, provide insight into the paleotectonic setting of the MOR mineralizing system, provide comparisons with other established VMS/VHMS belts, evaluate the mobile alteration and mineralization related signatures of the host rocks and rank the intensity of alteration and mineralization for prospective future drill targets.

Samples were collected for various lithofacies plus alteration and mineralized facies from drill holes MOR-07-02, MOR-07-03, MOR-08-05, MOR-08-07, and MOR-08-12. Sample descriptions, sample number and the depth down hole from which the samples were collected are documented in Appendix II. Approximately 15 to 25 cm of core length was selected at each facies change downhole and quartered with an impact splitter. The quartered core was then placed in plastic bags, assigned a pre-numbered assay tag and tied with flagging. It should be noted that some mineralized core intervals are stored at the core library in Whitehorse while the majority of the core is stored onsite at the MOR property. Surface samples representing interpreted vent proximal volcanic fragmental units were also collected south of the SD Zone mineralized horizons.

All rock samples were sent to ALS Chemex in North Vancouver, B.C. where they were analysed for major, trace, and rare-earth elements (REE) using the complete characterization package (CGP-PKG01). Major elements (SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO, Na₂O, K₂O, TiO₂, MnO, and P₂O₅) and LOI were obtained by lithium metaborate fusion pre-preparation followed by dissolution of the fused bead and subsequent analysis via inductively coupled plasma emission spectroscopy (ICP-ES). Sulfur and C were obtained via Leco, and base metals (Ag, Co, Cu, Mo, Ni, Pb, and Zn) were obtained by four acid digestion and subsequent analysis by ICP-ES. Trace elements and rare earth elements (Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tl, Tm, U, V, W, Y, Yb, and Zr) were obtained via lithium metaborate fusion with subsequent analysis via inductively coupled plasma mass spectrometry (ICP-MS), whereas volatile elements (As, Bi, Hg, Sb, Se, and Te) were obtained via aqua regia digestion and subsequent analysis via ICP-MS. Fusion pre-preparation ensures the complete digestion of resistant phases like zircon, ensuring high quality and complete values for high field strength element (HFSE: Zr, Hf, Nb, Ta, Y) and REE (La-Lu). In contrast, four acid and aqua regia digestions are partial digestions that specifically attack sulfide and weakly held elements and provide ideal results for base metals and volatile elements. Certificates of Analysis are contained in Appendix III.

The sampling, assessment and interpretation of results was completed under the direction of or done by SJP GeoConsulting of St. John's Newfoundland. Chemostratigraphic and mobile element results from the drill core and surface samples confirm the mineralizing system at MOR is similar to other known VMS belts in the northern Cordillera. Down hole alteration profiles constructed from the lithogeochemical data distinguish the Discovery Zone as being highly prospective for additional exploration. A complete report prepared by SJP GeoConsulting is contained in Appendix IV.

Gravity

Approximately 13 line km of ground based gravity surveys were conducted by MWH Geo-Surveys Inc. of Reno, Nevada. Roughly 4 line km were completed along the eastern extension of the Discovery Horizon while the remaining 9 km was done along strike of the mineralized horizons identified at the SD Zone. The orientation and spacing of the survey lines are illustrated on Figure 12 while the Bouguer results are shown on Figure 13.

Surveys across the eastern extension of the Discovery Horizon were hampered by dense vegetation and canopy cover which disabled the differential global positioning satellite (GPS) equipment. As a result, far fewer lines were surveyed at this target and survey points had to be chosen based on vegetation cover.

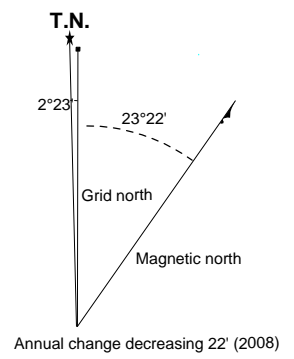
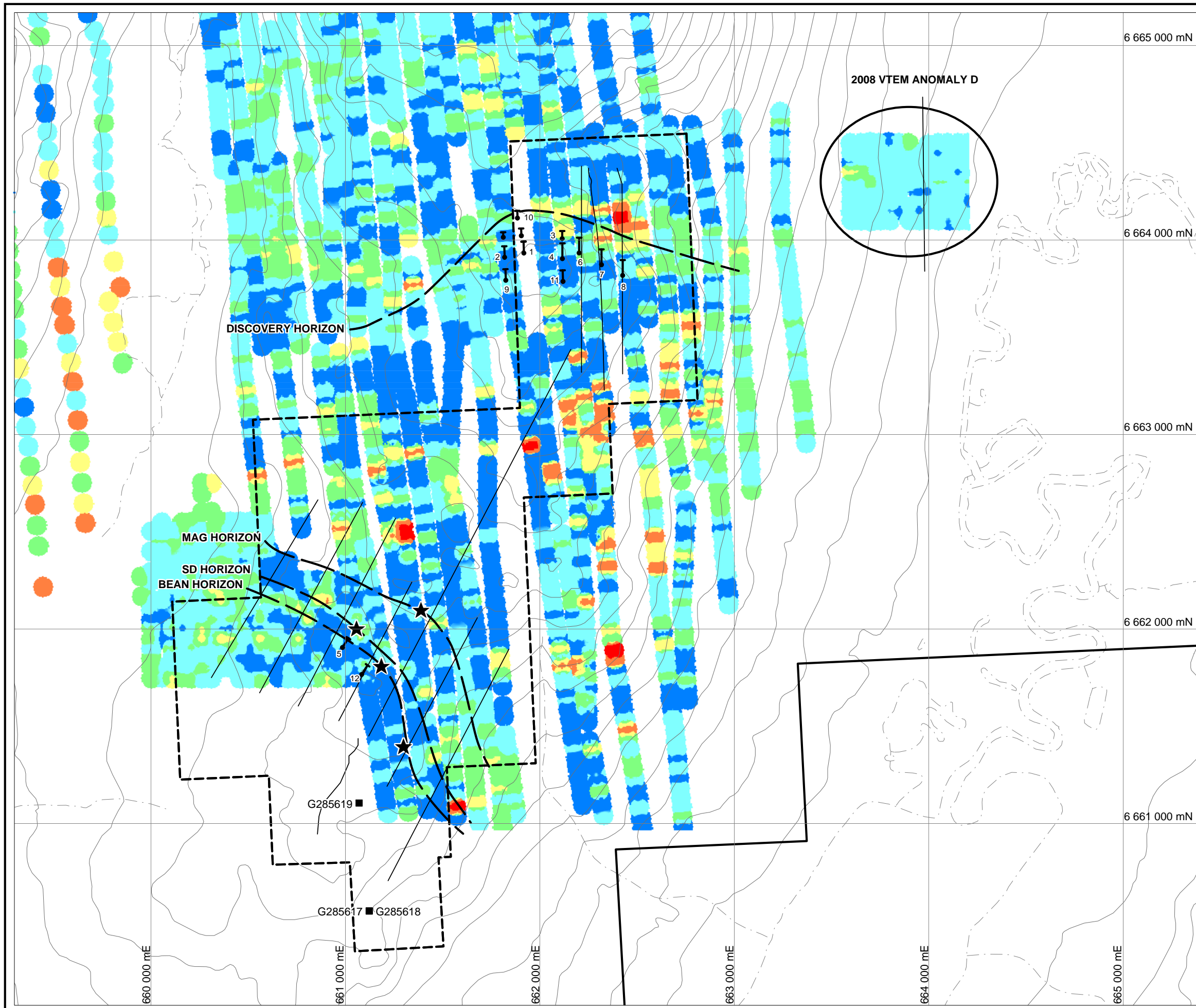
The three lines surveyed targeted the strike extension of the Discovery Horizon and additional zones that may exist deeper in the stratigraphic section. In particular, the lines tested beneath an unexplained, strongly anomalous copper-in-soil anomaly identified from previous closely spaced soil auger sampling.

Condor Consulting Ltd. was retained to model and interpret the Bouguer results referred to as the DHG anomaly. The modeling involved the preparation of 2D and 3D voxel models illustrated on Figures 14 and 15, respectively. The DHG anomaly is an elongate 800 m long 100 to 250 m wide northerly trending gravity anomaly. The strongest portion of the anomaly is roughly 250 by 200 m in size and is interpreted to lie stratigraphically beneath the Discovery Horizon mineralization. The voxel model was constructed with inverted data and while the rocks associated with the anomaly are more dense than the surrounding units, the absolute difference is not known.

The gravity response downdip and along strike of SD Zone mineralized horizons is somewhat subdued and indicates only subtle contrast with the surrounding volcanoclastic rocks. The SDG anomaly happens to coincide with the edge of the survey block and may be attributed to an "edge effect". However, the anomaly occurs in an area of vegetation cover and subdued relief with intermittent elevated copper-in-soil response.

DISCUSSION AND CONCLUSIONS

The MOR property covers a highly prospective Kuroko style VHMS target in southern Yukon, where remarkably little exploration has occurred during the 20th Century, despite a vast area of



- Diamond drill hole
- Mineralized horizon
- Mineralized showing
- Area of gravity survey
- Gravity Lines

Copper (ppm)

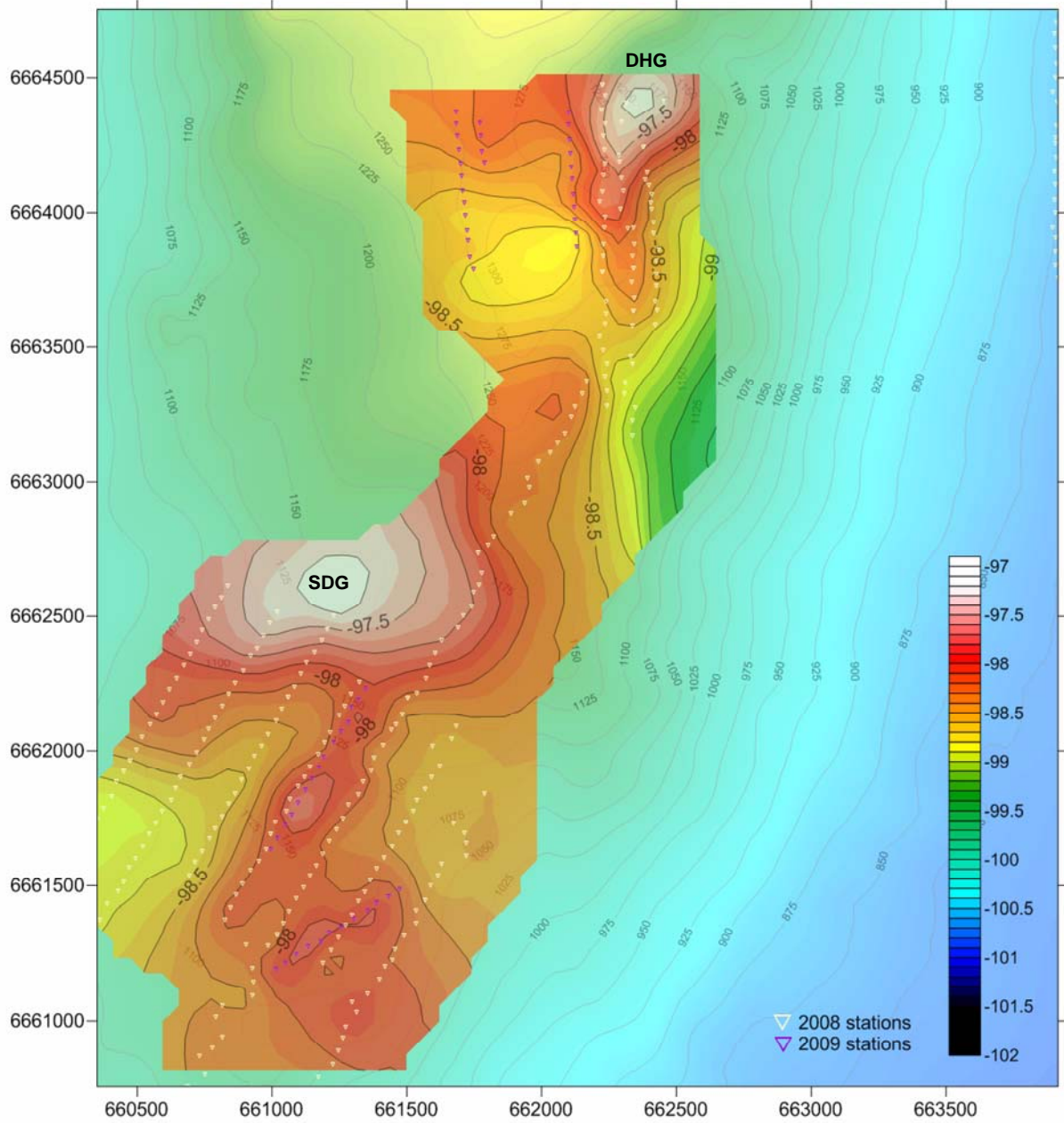
Red	≥500
Orange	≥200 <500
Yellow	≥100 <200
Light Green	≥50 <100
Light Blue	≥25 <50
Dark Blue	≥0 <25

TARSIS RESOURCES LTD.
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
 FIGURE 12
CLAIM LOCATION
MOR PROPERTY

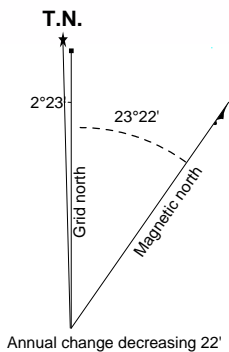
0 1 km
 UTM ZONE 8, NAD 83, 105C/01

FILE: ...2009/MOR/F_2-CLAIM.WOR DATE: MARCH 2010

Bouguer Gravity:
MOR Property, Yukon
Tarsis Capital Corp



UTM Zone 8N NAD83
 Bouguer density 2.67 gm/cc
 Terrain Corrections:
 to 10,000m radius with acquired DEM / clino



DHG Gravity anomaly described in text

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FIGURE 13

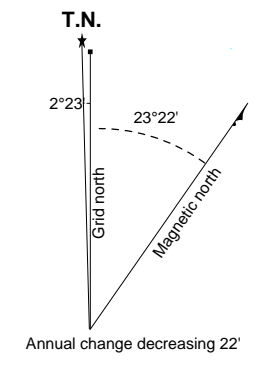
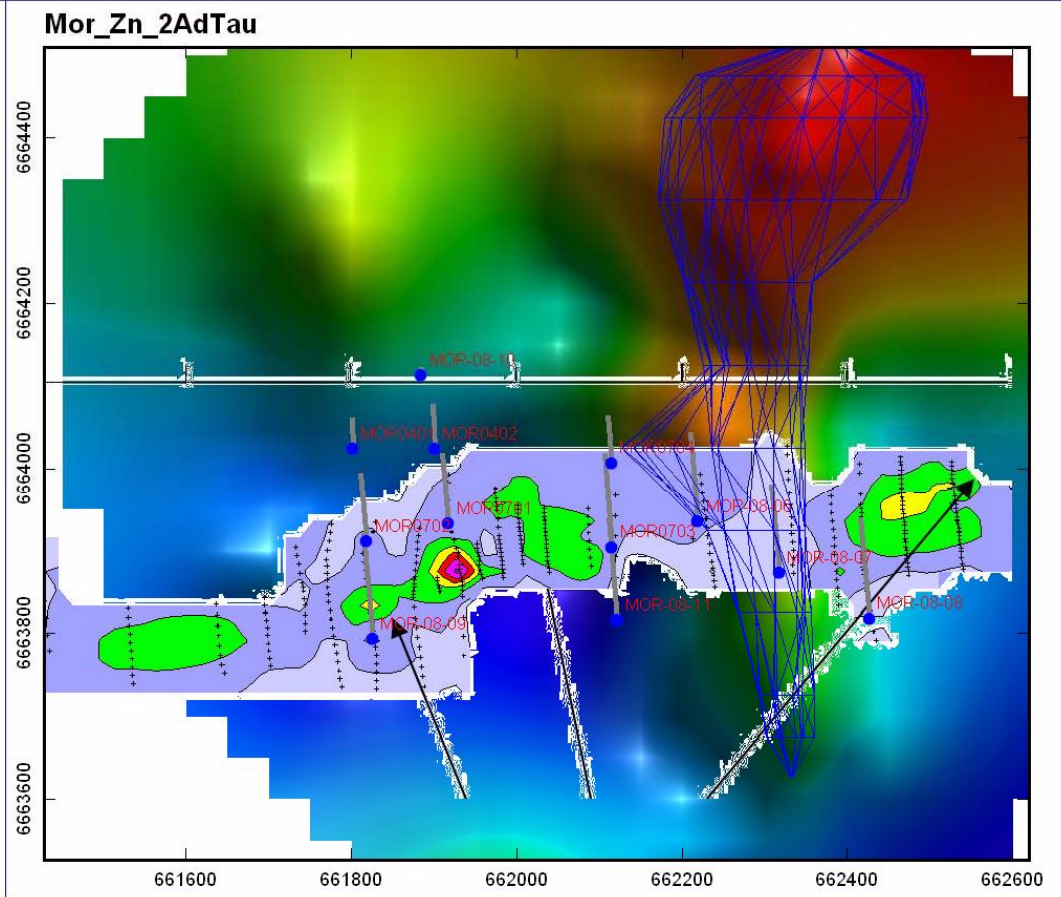
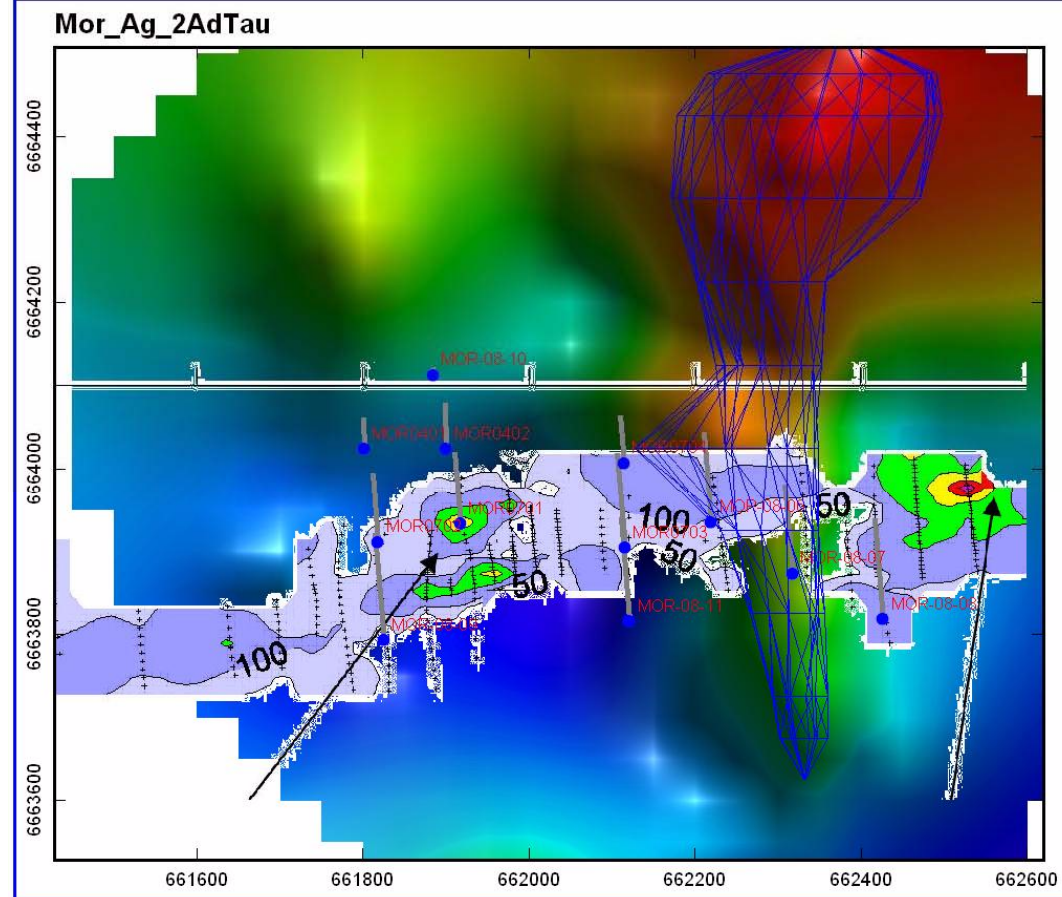
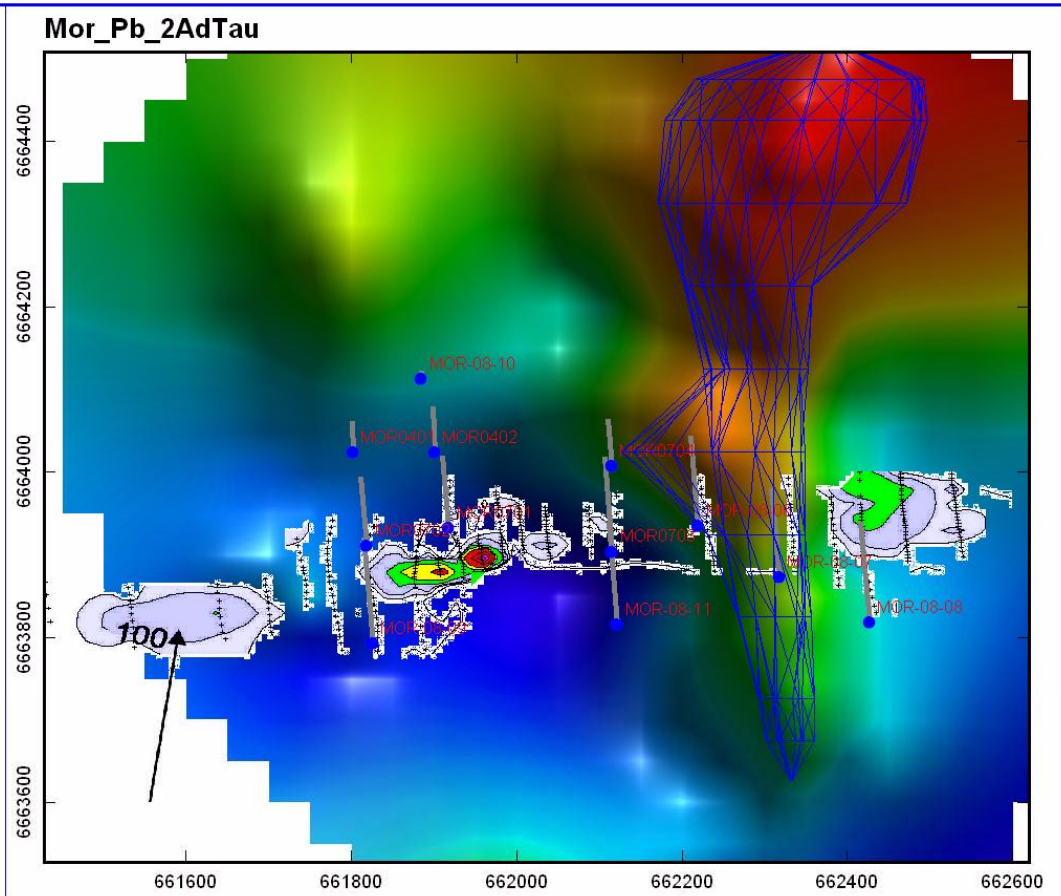
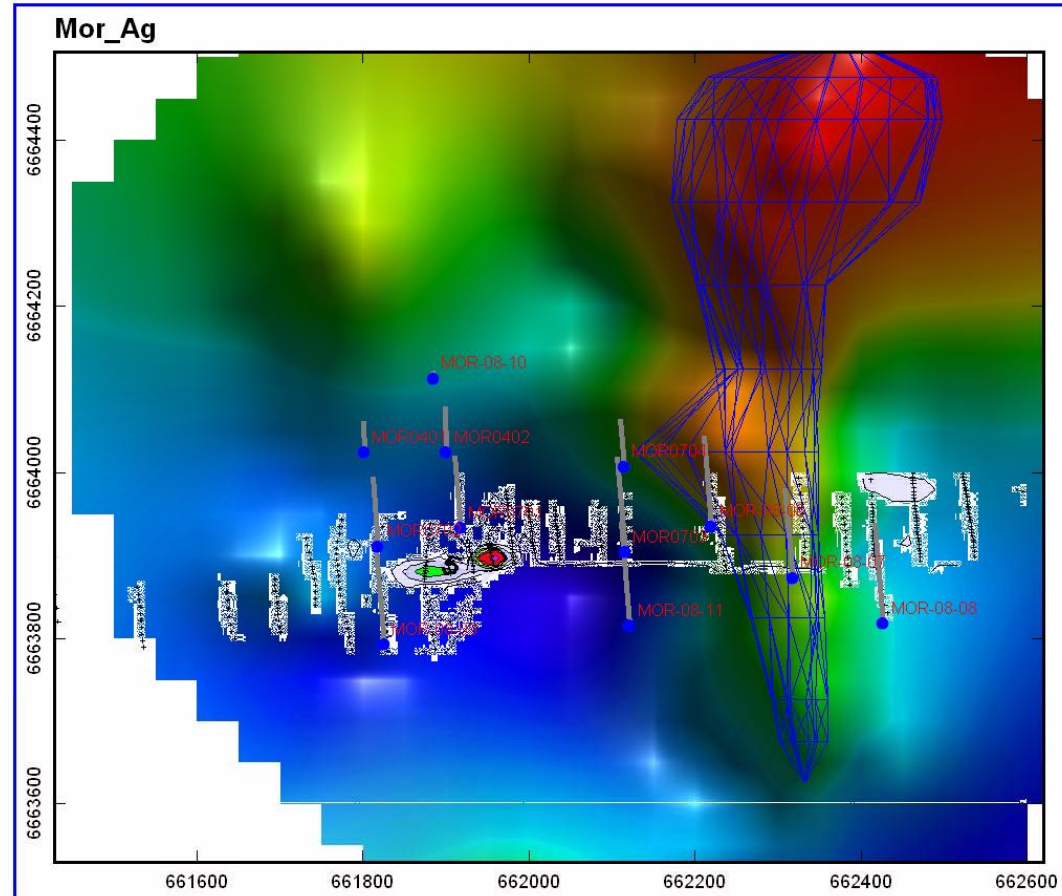
**BOUGUER GRAVITY
 MOR PROPERTY**



UTM ZONE 8, NAD 83, 105C/01

FILE: ...2009/MOR/F_2-CLAIM.WOR

DATE: MARCH 2010

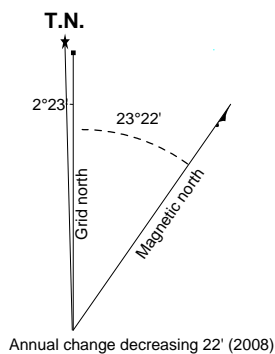
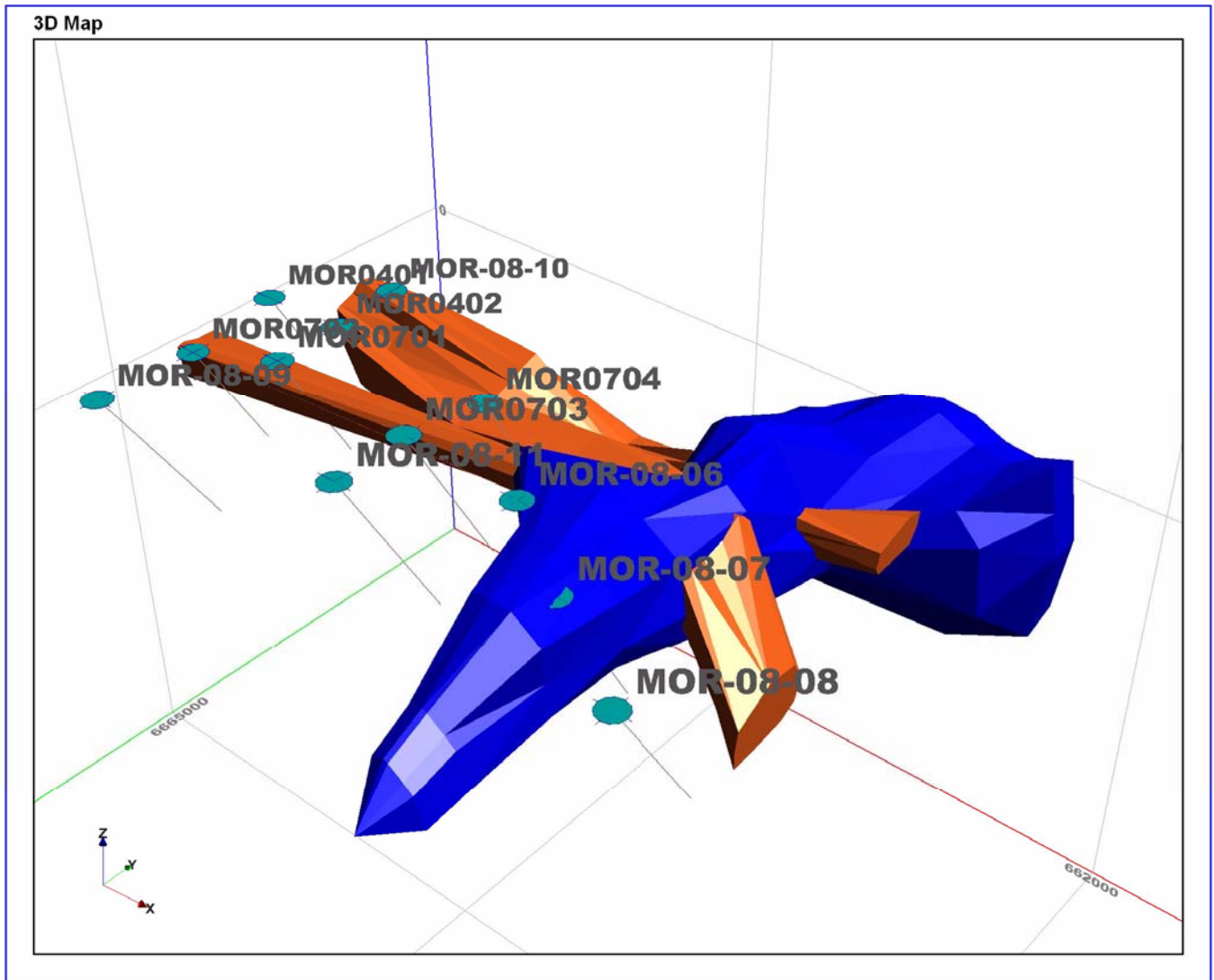


TARSIS RESOURCES LTD.
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
 FIGURE 14
GRAVITY VOXEL MODEL
PLAN VIEW
MOR PROPERTY

0 1 km
 UTM ZONE 8, NAD 83, 105C/01

FILE: ...2009/MOR/F_2-CLAIM.WOR DATE: MARCH 2010

VIEW LOOKING NW



TARSIS RESOURCES LTD.	
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED FIGURE 15	
GRAVITY VOXEL MODEL 3D VIEW MOR PROPERTY	
UTM ZONE 8, NAD 83, 105C/01	
FILE: ...2009/MOR/F_2-CLAIM.WOR	DATE: MARCH 2010

promising geology. Most of the known VHMS deposits in Yukon were discovered in the past decade within the evolving Finlayson Lake District, located in the southeastern part of the territory. These deposits are hosted within Yukon-Tanana Terrane, which comprises a composite collage of middle Paleozoic-age (Devonian to Carboniferous) bimodal arc volcanic rocks, metasedimentary and meta-igneous units. Regional geological mapping initiatives by the Yukon Geology Program have designated a vast area of Yukon to be underlain by Yukon-Tanana Terrane including the area occupied by the MOR prospect. Recent geochronological work conducted on select felsic to intermediate horizons from the MOR drill core yielded ages that categorize the MOR volcanism as time equivalent with the upper Finlayson to middle Wolverine Magmatic Cycles. These particular cycles hosts the Kudz Ze Kayah and Wolverine Deposits in the Finlayson Lake District.

Exploration to date has defined two distinct areas of interest where VHMS mineralization has been identified. These two areas are referred to as the Discovery and SD Zones. The sulphide intervals defining the Discovery Horizon within the Discovery Zone are pyrite dominant and appear to have been folded and coarsely recrystallized. The host rocks are classified as metavolcaniclastic, that likely represents a distal part of a VHMS mineralizing system. Typical barite, silica and/or magnetite-rich exhalative sequences have not yet been documented above or below the sulphide horizons, however, disseminated magnetite is noted in the stratigraphy overlying the Discovery Horizon mineralization and may represent the waning stages of an exhalative iron formation, which supports a distal VHMS environment.

Possible displacement of the MOR massive sulphide lenses from the origin of deposition is not known but the presence of significant amounts of chalcopyrite in portions of the mineralized horizons suggests displacement is likely minor and this mineralization may be of similar origin to the Kutcho Creek copper-rich sulphide. Results from both the lithogeochemical and gravity surveys suggest the greatest potential for additional VHMS discovery is in the vicinity of the Discovery Zone. The DHG anomaly is interpreted to lie stratigraphically beneath the Discovery Horizon but the geometry of the gravity voxel model suggests a northerly trend, which is roughly perpendicular to the known mineralized horizons. This particular geometry remains unexplained.

The MOR property covers an extensive VHMS system with excellent potential additional discoveries. Future work should focus on testing the gravity response defining the DHG anomaly.

Respectfully submitted,

Archer, Cathro & Associates (1981) Limited

W.A. Wengzynowski, P.Eng.

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APPENDIX I
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, William A. Wengzynowski, geological engineer, with business addresses in Vancouver, British Columbia and Whitehorse, Yukon Territory and residential address at 301 Fairway Drive, North Vancouver, British Columbia, V7G 1L4 do hereby certify that:

1. I am President of Archer, Cathro & Associates (1981) Limited.
2. I graduated from the University of British Columbia in 1993 with a B.A.Sc in Geological Engineering, Option 1, mineral and fuel exploration.
3. I registered as a Professional Engineer in the Province of British Columbia on December 12, 1998 (Licence Number 24119).
4. From 1983 to present, I have been actively engaged in mineral exploration in the Yukon Territory, Northwest Territories, northern British Columbia and Mexico.
5. I have personally participated in and supervised the fieldwork reported herein.

William A. Wengzynowski, B.A.Sc., P. Eng.

APPENDIX II
LITHOGEOCHEMISTRY SAMPLING

Surface Litho Samples

Sample #	Description
G285617	Limonite boxwork layers in very punky rotting sericite chlorite volcanoclastic
G285618	Mafic volcanoclastic with abundant blue opalescent quartz eyes
G285619	Coarse grained intermediate volcanic tuff with 2-3% pyrite
G285620	Chlorite sericite tuff with minor blue opalescent quartz eyes
G285621	Pyritic volcanoclastic tuff with abundant pyrite
G285622	Possible volcanic tuff with rare blebs of chalcopyrite
G285623	Volcanoclastic tuff with fine magnetite
G285624	Chlorite volcanic tuff with 5 -8% fine disseminated pyrite
G285625	felsic rhyolite schist with 3-5% fine disseminated pyrite
G285626	Quartz chlorite sericite schist
G285630	Heavily pyritic chlorite altered volcanoclastic tuff - sample taken from the Bean Zone at south end of property

Surface Litho Samples

Sample # **Description**

G285622 Possible volcanic tuff with rare blebs of chalcopyrite

G285623 Volcaniclastic tuff with fine magnetite

Surface Litho Samples

Sample # Description

G285624 Chlorite volcanic tuff with 5 -8% fine disseminated pyrite
G285625 felsic rhyolite schist with 3-5% fine disseminated pyrite
G285626 Quartz chlorite sericite schist

MOR-07-02	Sample #	Depth (m)	Description
	G285238	3.40	Pyritic speckled quartz-seri-bi-chl schist minor magnetite.
	G285239	6.60	Fine grained chloritic volcanic tuff (andesite)
	G285240	12.30	Wht speckled quartz-ser schist with ghosted chlorite altered volc folds.
	G285241	24.10	Same as above but more py.
	G285242	29.47	Section of fine chlorite banding altn.
	G285243	41.50	Transition from speckled qtz-ser-chl to felsic qtz-ser dominant.
	G285244	42.67	Transition to qtz rich banded unit - not thin banded like rhyolite or silica exhalite
	G285245	47.45	Chl alt tuffaceous volc.
	G285246	54.10	Chl alt tuffaceous volc.
	G285247	56.80	Gneiss interbanded with chlorite laths.
	G285248	61.50	Chl alt volc tuff
	G285249	69.78	Felsic tuff ser dominant
	G285250	74.90	Chlorite altn zone - pyritic volcanoclastic
	G285501	79.80	Chlorite alt volc.
	G285502	81.64	Top of sx zone in felsic volc
	G285503	84.60	Centre of sx zone.
	G285504	86.63	Centre of sx zone.
	G285505	88.70	Base of sx zone.
	G285506	90.50	Chl alt tuff btwn sx horizons.
	G628507	91.15	White speckled gneiss foliated sills. Chl+py.
	G628508	97.45	Upper sx in chl alt felsic volc.
	G285509	102.00	Chlorite alt tuff just above sx.
	G285510	103.35	Felsic sx zone.
	G285511	106.40	Felsic sx zone.
	G285512	111.00	Volc tuff footwall.
	G285513	115.30	Felsic schist with minor chl altn.
	G285514	131.50	Fine volc tuff ser/chl altn.
	G285515	142.00	Phyric Bi-chl volcanoclastic.
	G288516	160.30	Grey ser alt qtz rich seds.
	G285517	166.00	White marble.

MOR-07-03

Sample #	Depth (m)	Description
G285518	6.20	Qtz-ser-chl schist.
G285519	25.20	Speckled Qtz-mu-ser schist py-po-mag+epidote.
G285520	41.36	Andesite sill?
G285521	45.50	Speckled qtz-mu-ser schist.
G285522	48.50	Chlorite volc tuff.
G285523	65.50	Speckled qtz-mu-ser schist with minor epidote.
G285524	84.65	Speckled qtz-mu-ser schist.
G285525	102.90	Chl volc tuff.
G285526	116.50	Chl vol tuff with progressive stronger altn.
G285527	118.10	Strong ser alt tuff above mzn.
G285528	128.50	Strong cir alt pyritic tuff.
G285529	135.50	Smmx coarse py+ser+chl alt volc.
G285530	138.00	Strong ser-chl alt volc tuff.
G285531	143.95	MxSx
G285532	152.00	Mod pyritic ser-chl volc tuff.
G285533	170.00	Ser-qtz-tuff.
G285534	175.50	Qtz-mu-ser-chl schist/tuff - weak py
G285535	191.10	Strongly py ser-chl volc tuff
G285536	194.16	Qtz-ser-chl schist
G285537	212.00	Pyritic ser-qtz schist
G285538	219.00	Qtz phyric ser-chl volc tuff.
G285539	223.50	Ser laminated rhyolite?
G285540	227.00	Marble
G285541	230.50	Carbonate alt Andesite?

MOR-08-05

Sample #	Depth (m)	Description
G285561	11.35	Chl-mu tuff + mag xls
G285562	23.06	Felsic tuff ser>>chl
G285563	34.08	Strong chl alt vol tuff + magnetite xls.
G285564	36.08	White-grey silica (rhyh) flow? Ser alt+epidote alt clasts.
G285551	38.90	Chl alt volc dyke/sill?
G285552	40.50	Speckled qtz >> ser>chl schist
	*41.63-42.50	Mzn (marc has in van) Not Sampled
	*47.02-48.19	Mzn (marc has in van) Not Sampled
G285553	51.20	Chl alt volc tuff
G285554	52.15	Mx pyroxenes+Py * Hard as hell!! Skarn - thought it was chlorite altn at first
G285555	65.80	Speckled qtz -ser-chl schist with epidote alt.
G285565	82.94	Volc tuff
G285566	100.05	Volc tuff
G285567	125.12	Volc tuff
G285568	142.59	Pyritic tuff and mag xstls
G285569	149.32	Grey-white flow band rhyolite+ser altn.
G285670	155.49	Fine ser>>chl alt tuff + epidote altn clasts.
G285671	178.10	Increase chlorite altn.
G285672	185.25	Increase sericite altn + bands and disseminations of pyrite
G285673	191.76	Ser alt orthogneiss with coarse py cubes.

MOR-08-07

Sample #	Depth (m)	Description
G285574	13.90	Pyritic seri-chl tuff
G285575	17.90	Andesite ?
G285576	24.29	Felsic qtz-ser schist/tuff.
G285577	43.88	Ser<chl alt tuff
G285578	62.68	Ser>chl alt tuff
G285578	71.31	Coarse ser-chl fragmental
G285780	83.90	Chl-ser tuff
G285781	105.55	Pyritic tuff
G285582	119.60	Pyritic tuff ser=chl
G285556	126.00	Strong chl alt volc tuff.
G285557	127.30	Mx py with chl alt vol tuff band
G285558	128.80	Volc tuff ser>>chl
G285559	130.00	Chl-ser volc tuff. Py+cpy.
G285583	135.84	Heavy pyritic chl>ser tuff.
G285584	136.42	Mx coarse py
G285585	145.70	Felsic volc tuff weak py
G285586	156.50	Strong chl>ser volc tuff 15% py.
G285587	158.35	Grey silica flood exhalite?
G285588	171.40	Volc tuff + 5% py
G285589	179.50	Blk phyllite and felsic tuff interbeds.
G285590	188.20	Dark grey qtzite.
G285591	191.00	Volc tuff ser=chl
G285592	209.50	Chl-mu schist+py
G285593	215.50	Qtzite.

MOR-08-12

Sample #	Depth (m)	Description
G285594	14.90	Chl-ser pyritic volc tuff.
G285595	24.40	Ser>>chl with minor py in v-fine gr tuff/schist
G285596	32.70	Chl>>ser volc tuff.
G285597	47.70	Qtz rich sed? Rhy flow-ser alt+epidote.
G285598	53.55	Volc tuff chl>ser altn / feld-clay-epidote
G285599	64.50	Speckled sediment with ser>>chl
G285600	70.50	Volc tuff chl>ser
G285601	73.50	Felsic tuff with grey silica-epidote bands.
G285602	83.20	Intense silica-epidote altn
G285603	91.50	Qtz-feld-volc tuff+epidote
G285542	93.40	Qtz-ser-chl tuff.
G285543	95.50	Chl-py-po-mag mzn.
G285544	98.40	Chl-py-po-mag mzn.
G285545	100.10	Chl alt qtz feldspar volc tuff.
G285604	112.90	Qtz-feld-volc tuff+epidote
G285605	132.50	Qtz-feld-volc tuff+epidote
G285606	138.20	Chl>ser volc tuff
G285607	146.30	Felsic tuff
G285608	153.50	Chl>ser volc tuff
G285609	159.00	Mod pyritic tuff
G285610	173.00	Mod pyritic tuff
G285611	177.60	Qtz-mu-ser speckled schist±epidote
G685612	189.80	Chl-ser volc tuff
G685613	196.40	Felsic-intermediate volc tuff+py bands
G285546	205.40	Qtz-ser-chl schist.
G285547	207.50	Chl alt tuff with dissem py-cpy
G285548	211.00	Speckled ser-chl-epidote alt schist
G685614	216.00	Grey rhy flow+coarse py+ser>>chl
G685615	218.44	Dark chl>ser altn
G285549	227.00	Chl alt vol tuff with secondary carbonate and weak py+cpy
G285560	229.00	Chl alt tuff + py
G285550	239.00	Ser-chl volc tuff with secondary carbonate and weak py+cpy
G685616	245.40	Felsic tuff - clay+epidote altn.

APPENDIX III
CERTIFICATES OF ANALYSIS



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Page: 1

Finalized Date: 15-OCT-2009

Account: F

CERTIFICATE VA09108634

Project: MOR

P.O. No.:

This report is for 2 Rock samples submitted to our lab in Vancouver, BC, Canada on 1-OCT-2009.

The following have access to data associated with this certificate:

AL ARCHER
VANCOUVER OFFICE

DOUG EATON
BILL WENZYNOWSKI

JOAN MARIACHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

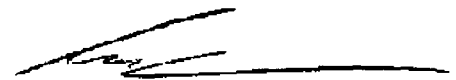
ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:


Colin Ramshaw, Vancouver Laboratory Manager



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Total # Pages: 2 (A - C)

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Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09108634

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Recvd Wt. kg	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
		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
G285627		0.52	1.2	0.97	86	<10	100	<0.5	2	0.28	<0.5	6	9	7	1.66	<10
G285628		2.00	1.3	2.60	8	<10	210	<0.5	<2	1.36	<0.5	19	9	348	5.40	10



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Page: 2 - B
Total # Pages: 2 (A - C)
Finalized Date: 15-OCT-2009
Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09108634

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
G285627		<1	0.23	10	0.47	699	<1	0.02	13	220	7	0.07	<2	3	8	<20
G285628		<1	0.64	<10	2.38	1195	<1	0.03	5	830	40	0.04	<2	11	75	<20



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Page: 2 - C

Total # Pages: 2 (A - C)

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Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09108634

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm
		0.01	10	10	1	10	2
G285627		0.06	<10	<10	12	<10	49
G285628		0.13	<10	<10	124	<10	106



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Page: 1

Finalized Date: 28-OCT-2009

Account: F

CERTIFICATE VA09107973

Project: MOR

P.O. No.:

This report is for 11 Rock samples submitted to our lab in Vancouver, BC, Canada on 1-OCT-2009.

The following have access to data associated with this certificate:

AL ARCHER
VANCOUVER OFFICE

DOUG EATON
BILL WENGZYNOWSKI

JOAN MARIACHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
CRU-QC	Crushing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
C-IR07	Total Carbon (Leco)	LECO
S-IR08	Total Sulphur (Leco)	LECO
ME-MS81	38 element fusion ICP-MS	ICP-MS
ME-MS42	Up to 34 elements by ICP-MS	ICP-MS
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
TOT-ICP06	Total Calculation for ICP06	ICP-AES
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES

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Signature:


Colin Ramshaw, Vancouver Laboratory Manager



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Page: 2 - A

Total Pages: 2 (A - E)

Finalized Date: 28-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107973

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	C-IR07
		Recvd Wt.	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	Cr2O3	TiO2	MnO	P2O5	SrO	BaO	C
		kg	%	%	%	%	%	%	%	%	%	%	%	%	%	%
		0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
G285617		1.66	61.8	15.15	5.05	1.29	4.05	4.19	1.98	<0.01	0.50	0.21	0.10	0.01	0.11	0.27
G285618		0.60	52.1	16.75	11.40	0.48	5.29	3.44	3.11	<0.01	0.73	0.50	0.13	0.01	0.12	0.06
G285619		0.50	71.6	10.85	4.38	1.77	2.18	4.32	0.42	<0.01	0.25	0.09	0.09	0.01	0.02	0.51
G285620		0.98	83.8	4.11	4.55	0.38	1.88	0.18	1.29	0.01	0.18	0.05	0.04	<0.01	0.18	0.17
G285621		1.20	69.4	13.25	5.31	0.40	2.48	0.80	3.38	0.01	0.62	0.07	0.10	0.01	0.32	0.07
G285622		1.90	54.9	17.00	8.15	6.33	2.95	5.22	0.51	<0.01	0.86	0.19	0.21	0.03	0.02	0.01
G285623		0.94	53.2	16.50	9.63	4.02	5.90	3.59	1.22	0.01	0.94	0.18	0.22	0.02	0.09	0.15
G285624		0.86	45.2	14.85	17.55	0.43	7.29	0.31	2.34	0.01	0.79	0.24	0.12	<0.01	0.30	0.07
G285625		0.96	71.5	12.65	4.92	0.34	1.38	1.59	3.02	<0.01	0.37	0.04	0.07	<0.01	0.28	0.01
G285626		1.96	51.2	16.60	5.82	6.39	4.88	5.86	0.37	<0.01	1.50	0.14	0.39	0.01	0.05	1.04
G285630		1.46	36.9	4.42	46.0	0.66	3.06	0.41	<0.01	<0.01	0.29	0.10	0.08	<0.01	<0.01	0.01



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Page: 2 - B

Total Pages: 2 (A - E)

Finalized Date: 28-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107973

Sample Description	Method Analyte Units LOR	S-IR08	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	
		S %	Ag ppm	Ba ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Dy ppm	Er ppm	Eu ppm	Ga ppm	Gd ppm	Hf ppm	Ho ppm
		0.01	1	0.5	0.5	0.5	10	0.01	5	0.05	0.03	0.03	0.1	0.05	0.2	0.01
G285617		0.02	<1	949	25.7	14.6	10	1.02	21	4.47	2.65	0.92	16.4	3.94	2.9	0.86
G285618		1.59	<1	1050	10.5	29.5	10	1.97	32	3.24	1.95	0.82	18.0	2.73	1.5	0.66
G285619		0.01	<1	157.5	12.6	8.0	10	0.25	101	2.32	1.46	0.63	8.9	2.09	2.8	0.46
G285620		0.28	<1	1530	17.0	5.3	60	2.58	49	2.29	1.33	0.47	9.2	2.38	1.4	0.42
G285621		0.07	<1	2840	38.3	3.4	80	1.89	47	2.24	1.58	0.54	20.4	2.71	3.4	0.45
G285622		0.01	<1	196.5	28.4	16.9	20	0.26	119	4.18	2.23	1.35	18.3	4.57	2.8	0.75
G285623		0.02	<1	733	25.8	23.3	30	1.54	119	4.41	2.50	1.35	17.7	4.44	3.0	0.84
G285624		6.74	<1	2510	5.2	80.7	40	0.68	19	2.11	1.27	0.58	15.7	1.92	1.3	0.41
G285625		1.94	<1	2490	32.8	5.5	10	0.93	10	3.75	2.42	0.78	12.2	4.06	4.2	0.73
G285626		0.07	<1	419	15.3	8.8	10	0.40	45	4.15	2.50	1.42	16.3	3.45	1.7	0.81
G285630		12.25	<1	29.2	32.1	79.8	20	0.12	1230	2.27	1.14	0.47	9.9	2.83	3.0	0.39



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Page: 2 - C

Total Pages: 2 (A - E)

Finalized Date: 28-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107973

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
		La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.5	0.01	2	0.2	0.1	5	5	0.03	0.2	0.03	1	0.1	0.1	0.01	0.05
G285617		10.9	0.41	<2	3.7	14.1	11	17	3.44	42.2	3.64	2	81.4	0.2	0.74	2.09
G285618		4.6	0.26	<2	2.2	7.2	<5	26	1.53	64.4	2.19	1	52.8	0.1	0.55	0.70
G285619		5.5	0.32	<2	2.0	6.8	<5	22	1.57	6.0	1.72	1	68.8	0.3	0.38	2.52
G285620		9.2	0.19	<2	3.9	9.3	40	16	2.54	60.3	2.19	1	38.4	0.3	0.39	2.49
G285621		20.9	0.28	3	11.7	14.7	13	20	3.96	131.5	2.64	2	77.7	0.8	0.39	7.44
G285622		13.4	0.30	<2	7.7	17.0	9	9	3.84	6.3	4.15	1	223	0.3	0.70	1.62
G285623		10.9	0.37	<2	3.8	16.4	17	<5	3.56	23.3	3.92	1	192.5	0.3	0.75	1.57
G285624		2.0	0.19	5	3.1	4.1	30	11	0.77	52.3	1.27	4	30.3	0.2	0.35	1.06
G285625		15.4	0.44	4	10.2	16.4	8	37	3.98	69.3	3.96	2	34.4	0.7	0.65	4.39
G285626		6.0	0.33	<2	4.6	9.0	8	50	2.03	8.2	2.65	2	81.7	0.3	0.64	1.26
G285630		15.2	0.15	5	3.9	13.4	11	49	3.47	0.4	2.57	4	19.4	0.3	0.41	5.35



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VANCOUVER BC V6B 1L8

Page: 2 - D

Total Pages: 2 (A - E)

Finalized Date: 28-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107973

Sample Description	Method Analyte Units LOR	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42
		Tl	Tm	U	V	W	Y	Yb	Zn	Zr	As	Bi	Hg	Sb	Se	Te
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.5	0.01	0.05	5	1	0.5	0.03	5	2	0.1	0.01	0.005	0.05	0.2	0.01
G285617		<0.5	0.41	0.89	137	1	25.6	2.71	231	95	24.6	0.14	<0.005	0.08	0.2	0.01
G285618		0.5	0.28	0.36	253	1	17.2	1.67	450	45	26.3	0.48	0.014	0.07	0.8	0.24
G285619		<0.5	0.25	0.45	99	1	12.4	1.80	39	98	237	0.79	0.009	0.10	<0.2	0.01
G285620		<0.5	0.22	0.47	70	1	9.9	1.26	44	58	30.3	0.16	<0.005	0.13	0.5	0.05
G285621		<0.5	0.29	1.97	141	4	11.5	1.83	108	123	0.7	0.20	<0.005	<0.05	0.9	0.09
G285622		<0.5	0.34	0.62	217	<1	21.2	2.04	86	100	1.9	0.01	0.008	0.06	0.2	0.02
G285623		<0.5	0.38	0.62	231	<1	23.5	2.45	103	102	0.4	0.01	0.006	0.07	0.2	0.02
G285624		<0.5	0.19	0.45	237	2	13.1	1.18	165	43	10.7	1.76	0.061	0.24	28.9	1.30
G285625		0.5	0.41	1.38	47	1	21.6	2.80	31	144	22.9	3.59	0.020	0.33	0.6	2.02
G285626		<0.5	0.37	0.93	219	1	21.7	2.21	123	56	4.3	0.05	0.020	0.73	0.3	0.02
G285630		<0.5	0.14	3.62	26	<1	10.9	1.01	37	108	27.4	2.99	0.042	0.25	86.3	1.45



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1016-510 W HASTINGS ST

VANCOUVER BC V6B 1L8

Page: 2 - E

Total Pages: 2 (A - E)

Finalized Date: 28-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107973

Sample Description	Method Analyte Units LOR	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81
		LOI	Total	Ag	As	Cd	Co	Cu	Mo	Ni	Pb	Zn
		%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.01	0.01	0.5	5	0.5	1	1	1	1	1	2
G285617		3.79	98.2	<0.5	29	0.5	14	22	<1	8	5	236
G285618		4.36	98.4	<0.5	26	<0.5	31	34	<1	3	7	461
G285619		4.11	100.0	0.6	235	<0.5	6	80	<1	1	1	35
G285620		1.43	98.1	<0.5	31	<0.5	5	46	<1	41	2	44
G285621		2.21	98.4	<0.5	<5	<0.5	3	45	2	11	14	109
G285622		1.60	98.0	<0.5	<5	<0.5	17	125	<1	7	3	85
G285623		3.44	99.0	<0.5	<5	<0.5	24	126	<1	12	3	105
G285624		8.88	98.3	<0.5	6	<0.5	84	17	5	29	10	164
G285625		3.81	100.0	<0.5	21	<0.5	5	8	4	2	23	28
G285626		6.34	99.6	<0.5	5	<0.5	8	48	<1	5	4	120
G285630		8.63	100.5	1.0	19	<0.5	95	1440	3	13	9	37



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Page: 1

Finalized Date: 29-OCT-2009

Account: F

CERTIFICATE VA09107974

Project: MOR

P.O. No.:

This report is for 129 Drill Core samples submitted to our lab in Vancouver, BC, Canada on 1-OCT-2009.

The following have access to data associated with this certificate:

AL ARCHER
VANCOUVER OFFICE

DOUG EATON
BILL WENZYNOWSKI

JOAN MARIACHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-QC	Crushing QC Test
CRU-31	Fine crushing - 70% <2mm
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS42	Up to 34 elements by ICP-MS	ICP-MS
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
TOT-ICP06	Total Calculation for ICP06	ICP-AES
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Cu-OG62	Ore Grade Cu - Four Acid	VARIABLE
Zn-OG62	Ore Grade Zn - Four Acid	VARIABLE
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
C-IR07	Total Carbon (Leco)	LECO
S-IR08	Total Sulphur (Leco)	LECO
ME-MS81	38 element fusion ICP-MS	ICP-MS

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:


Colin Ramshaw, Vancouver Laboratory Manager



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VANCOUVER BC V6B 1L8

Page: 2 - A

Total # pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	WEI-21	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	C-IR07
	Analyte Units LOR	Recvd Wt. kg	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	Cr2O3 %	TiO2 %	MnO %	P2O5 %	SrO %	BaO %	C %
G285238		0.42	71.2	14.20	4.00	2.54	0.94	5.20	0.90	<0.01	0.36	0.05	0.09	0.01	0.07	0.02
G285239		0.38	52.8	15.85	11.05	4.30	5.39	3.28	1.16	<0.01	0.90	0.19	0.08	0.01	0.06	0.37
G285240		0.52	55.0	16.15	9.98	6.46	3.92	2.41	0.78	<0.01	1.02	0.16	0.28	0.04	0.04	0.07
G285241		0.42	72.0	13.10	3.11	3.13	1.06	4.78	0.48	<0.01	0.31	0.06	0.05	0.02	0.03	0.11
G285242		0.38	49.6	15.45	9.05	6.91	6.00	3.01	0.82	0.01	0.86	0.19	0.14	0.01	0.03	1.19
G285243		0.32	70.0	13.55	3.62	2.19	1.08	4.29	1.48	<0.01	0.32	0.05	0.07	0.02	0.10	0.11
G285244		0.42	95.8	1.04	1.06	0.22	0.35	0.04	0.21	<0.01	0.03	0.01	0.02	<0.01	0.01	0.04
G285245		0.34	66.4	11.60	7.75	1.59	3.27	0.37	2.87	0.01	0.77	0.16	0.43	<0.01	0.09	0.03
G285246		0.42	48.9	16.55	8.69	5.86	6.50	4.73	0.35	0.01	0.97	0.24	0.14	0.01	0.01	1.04
G285247		0.48	76.7	11.85	1.74	1.42	0.68	5.72	0.15	<0.01	0.11	0.03	0.01	0.01	0.01	0.11
G285248		0.38	48.1	15.50	7.84	8.08	5.88	4.19	0.64	0.01	0.58	0.21	0.07	0.02	0.01	1.61
G285249		0.20	65.4	15.55	4.42	0.93	2.74	4.63	1.85	<0.01	0.45	0.05	0.14	0.01	0.08	0.16
G285250		0.24	50.2	15.30	15.75	0.55	6.92	0.20	1.94	0.01	0.86	0.20	0.19	<0.01	0.08	0.08
G285501		0.18	52.2	16.95	10.30	2.24	6.07	4.47	0.53	<0.01	1.34	0.12	0.14	0.01	0.16	0.27
G285502		0.36	17.40	5.90	45.7	1.88	2.20	0.65	0.89	<0.01	0.31	0.08	0.03	<0.01	0.33	0.39
G285503		0.32	6.20	1.49	57.7	0.95	0.67	0.46	0.11	<0.01	0.06	0.05	0.01	0.04	3.35	0.22
G285504		0.50	8.51	2.82	53.5	1.68	2.46	0.16	0.17	<0.01	0.11	0.09	<0.01	0.03	2.92	0.28
G285505		0.26	19.65	5.92	31.8	0.57	2.28	<0.01	1.25	<0.01	0.29	0.05	0.03	0.07	5.55	0.19
G285506		0.20	51.9	16.70	9.46	2.72	7.55	4.70	1.56	0.01	0.99	0.15	0.08	0.01	0.24	0.40
G285507		0.28	71.8	12.95	3.09	1.16	1.72	5.58	0.81	<0.01	0.34	0.04	0.07	0.01	0.11	0.10
G285508		0.26	33.1	9.85	28.6	2.72	4.85	1.14	0.90	<0.01	0.66	0.13	0.08	0.03	1.70	0.57
G285509		0.24	47.3	15.90	9.28	5.54	7.66	4.13	0.24	<0.01	1.18	0.22	0.16	0.01	0.11	1.10
G285510		0.24	26.9	10.10	38.6	0.22	1.28	1.02	2.62	<0.01	0.40	0.02	0.08	0.01	0.21	0.03
G285511		0.24	40.5	10.25	25.7	0.77	1.29	1.03	2.45	<0.01	0.33	0.03	<0.01	0.01	0.20	0.07
G285512		0.26	50.1	16.40	9.83	3.27	7.07	4.61	0.31	<0.01	1.28	0.20	0.22	0.01	0.02	0.65
G285513		0.24	73.2	11.70	4.30	0.77	1.34	4.83	0.48	<0.01	0.29	0.06	0.05	0.01	0.03	0.13
G285514		0.42	67.7	13.50	4.89	2.20	1.79	3.02	2.21	<0.01	0.34	0.08	0.08	0.01	0.10	0.47
G285515		0.30	59.9	13.65	6.23	3.58	3.75	4.17	3.24	0.02	0.58	0.14	0.25	0.04	0.10	0.76
G285516		0.26	73.8	7.09	5.09	2.46	3.99	1.43	0.58	0.02	0.80	0.18	0.18	0.01	0.03	0.88
G285517		0.26	9.81	0.16	0.58	28.8	19.25	0.04	0.04	<0.01	0.01	0.04	0.13	0.02	<0.01	11.55
G285518		0.36	54.7	13.75	8.18	6.45	5.74	2.92	0.45	0.04	0.70	0.21	0.10	0.01	0.02	1.11
G285519		0.34	64.7	15.25	6.96	4.40	1.64	5.12	0.17	<0.01	0.62	0.14	0.13	0.02	0.01	0.05
G285520		0.54	52.6	15.60	11.90	3.89	6.14	3.24	1.35	<0.01	1.18	0.18	0.12	<0.01	0.12	0.49
G285521		0.34	70.4	13.25	5.00	3.39	1.05	4.14	0.76	<0.01	0.47	0.09	0.11	0.02	0.10	0.05
G285522		0.50	51.5	15.40	9.78	5.86	6.41	3.35	0.61	<0.01	0.74	0.24	0.07	0.01	0.03	0.83
G285523		0.44	72.5	13.60	3.66	2.61	1.05	4.79	0.71	<0.01	0.38	0.06	0.08	0.01	0.04	0.02
G285524		0.42	67.9	14.65	4.56	3.37	1.36	4.81	1.07	<0.01	0.51	0.05	0.16	0.02	0.09	0.04
G285525		0.42	52.3	15.80	10.40	8.36	4.91	1.87	0.24	<0.01	1.04	0.22	0.19	0.03	0.04	0.28
G285526		0.44	49.5	15.80	10.15	5.20	5.98	3.02	1.45	<0.01	1.22	0.26	0.20	0.01	0.08	0.85
G285527		0.32	75.2	11.25	2.71	1.37	0.85	3.76	1.42	<0.01	0.22	0.04	0.03	<0.01	0.10	0.25

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 2 - B

Total # Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

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CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	S-IR08	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte	S	Ag	Ba	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Ho
Units	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR	0.01	1	0.5	0.5	0.5	10	0.01	5	0.05	0.03	0.03	0.1	0.05	0.2	0.01	
G285238	0.08	<1	621	50.2	4.5	10	0.28	9	4.56	2.87	0.93	15.3	4.41	5.4	0.90	
G285239	0.01	<1	540	15.3	22.7	10	0.83	13	3.53	2.26	0.97	19.1	2.89	1.6	0.71	
G285240	0.06	<1	350	29.3	18.2	<10	0.48	<5	4.11	2.50	1.27	17.1	4.22	2.7	0.83	
G285241	0.17	<1	311	42.7	5.4	10	0.08	13	3.76	2.51	0.86	13.0	3.98	4.5	0.75	
G285242	0.09	<1	235	14.7	23.8	80	0.41	38	2.92	1.88	0.99	14.1	2.78	1.6	0.59	
G285243	0.59	<1	848	44.9	4.3	<10	0.36	5	4.67	2.88	0.96	14.3	4.68	4.6	0.90	
G285244	0.10	<1	86.9	3.9	2.1	20	0.04	<5	0.40	0.27	0.12	2.3	0.45	0.2	0.09	
G285245	0.44	<1	774	81.2	18.4	50	0.72	123	5.77	2.98	1.50	16.9	7.17	3.7	1.01	
G285246	0.02	<1	73.5	12.9	25.5	50	0.26	<5	3.31	1.99	0.88	14.8	3.11	1.5	0.65	
G285247	0.01	<1	59.7	48.6	1.6	10	0.02	9	3.67	2.49	0.59	10.7	3.78	4.1	0.75	
G285248	0.02	<1	124.0	9.4	25.6	40	0.27	27	2.38	1.63	0.59	14.3	2.06	1.2	0.52	
G285249	0.13	<1	690	41.8	6.2	10	0.36	7	3.84	2.31	0.97	16.7	4.13	4.4	0.71	
G285250	1.92	<1	677	41.4	27.0	40	0.22	201	3.86	2.37	0.62	17.7	4.49	3.5	0.78	
G285501	0.03	<1	1465	24.4	22.1	<10	0.08	16	4.21	2.66	1.18	18.3	3.96	2.8	0.82	
G285502	36.0	<1	2720	19.4	18.2	10	0.14	64	2.09	1.18	0.48	7.1	2.42	1.1	0.36	
G285503	43.1	<1	>10000	3.1	26.4	<10	0.01	265	0.40	0.22	0.21	1.9	0.44	<0.2	0.08	
G285504	36.3	1	>10000	2.2	20.1	<10	0.11	1240	0.42	0.24	0.04	4.1	0.42	0.2	0.08	
G285505	27.1	34	>10000	15.2	62.2	<10	0.20	9480	1.60	0.97	0.31	8.6	1.65	1.3	0.31	
G285506	0.40	1	2420	21.0	34.0	80	0.96	373	4.76	2.82	1.18	20.3	4.27	2.2	0.93	
G285507	0.15	1	966	46.7	3.8	10	0.26	160	3.50	2.46	0.96	11.7	3.84	4.6	0.73	
G285508	17.85	8	>10000	12.7	51.2	40	0.20	2420	2.46	1.48	1.03	12.1	2.13	1.3	0.56	
G285509	0.10	<1	931	31.6	27.8	10	0.12	165	4.90	2.96	1.35	16.9	4.61	2.0	0.95	
G285510	27.5	15	1495	35.0	98.6	<10	0.18	>10000	3.26	1.84	0.44	13.5	3.42	3.3	0.60	
G285511	18.50	9	1595	41.5	83.6	10	0.29	8700	4.09	2.38	0.62	16.0	4.17	3.8	0.81	
G285512	0.18	<1	139.0	16.3	28.1	20	0.11	153	4.14	2.64	1.05	16.7	3.74	2.2	0.89	
G285513	0.05	<1	220	24.9	2.5	10	0.08	22	5.80	4.09	1.16	14.3	5.00	3.6	1.29	
G285514	0.33	<1	842	24.6	4.7	<10	1.62	16	4.65	3.05	1.03	16.2	4.08	3.0	0.99	
G285515	0.05	<1	771	61.3	16.2	110	3.69	29	3.87	2.12	1.45	15.7	5.54	3.5	0.71	
G285516	0.16	<1	264	33.9	19.6	120	0.37	40	2.68	1.38	0.98	10.0	3.76	2.4	0.49	
G285517	0.02	<1	12.2	1.6	1.1	<10	0.04	<5	0.16	0.09	0.09	0.8	0.20	<0.2	0.01	
G285518	0.02	<1	159.0	16.7	25.6	240	0.30	6	3.15	1.96	0.81	14.4	2.99	2.0	0.66	
G285519	0.14	<1	75.5	23.6	11.6	10	0.07	51	4.87	3.26	1.30	17.0	4.35	2.8	1.06	
G285520	0.01	<1	930	14.6	28.1	<10	0.73	<5	4.13	2.52	1.03	19.8	3.54	1.6	0.81	
G285521	0.15	<1	804	25.0	6.5	<10	0.18	30	4.85	3.11	1.05	15.6	4.46	3.2	1.02	
G285522	0.02	<1	275	8.7	31.4	10	0.38	5	2.42	1.54	0.81	15.5	2.18	1.3	0.49	
G285523	0.03	<1	361	46.9	6.2	<10	0.13	15	4.50	2.87	1.04	16.4	4.79	4.9	0.92	
G285524	0.33	<1	689	44.6	9.0	10	0.22	16	4.41	2.84	1.10	18.1	4.67	4.9	0.92	
G285525	0.01	<1	297	19.3	27.3	10	0.26	32	3.44	2.07	1.06	19.7	3.37	1.7	0.67	
G285526	0.27	<1	643	14.2	32.6	10	0.58	60	4.48	3.00	1.40	17.3	4.04	1.8	0.96	
G285527	0.34	<1	846	36.0	3.3	10	0.21	<5	3.72	2.64	0.75	13.1	3.93	4.6	0.80	

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 2 - C

Total # Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte Units LOR	La ppm	Lu ppm	Mo ppm	Nb ppm	Nd ppm	Ni ppm	Pb ppm	Pr ppm	Rb ppm	Sm ppm	Sn ppm	Sr ppm	Ta ppm	Tb ppm	Th ppm
G285238		25.7	0.47	<2	9.7	20.5	<5	27	5.56	23.1	4.21	2	122.0	0.8	0.74	8.17
G285239		7.0	0.35	<2	4.1	8.0	<5	24	1.84	32.3	2.38	1	117.0	0.3	0.51	1.57
G285240		13.5	0.36	2	6.8	15.5	6	20	3.58	21.5	3.78	1	293	0.4	0.70	2.53
G285241		21.0	0.39	<2	8.8	16.9	<5	6	4.50	10.2	3.51	1	139.0	0.7	0.64	7.27
G285242		6.5	0.26	<2	4.5	8.4	25	5	1.96	24.0	2.34	<1	127.5	0.3	0.49	1.09
G285243		22.5	0.44	<2	9.0	19.4	<5	34	5.11	32.7	4.01	2	126.5	0.7	0.77	7.26
G285244		1.7	0.04	<2	0.8	1.6	10	93	0.38	5.1	0.35	1	5.0	<0.1	0.08	0.42
G285245		42.9	0.40	<2	24.5	35.1	47	90	9.45	73.9	6.86	3	43.4	1.5	1.05	10.45
G285246		5.4	0.28	<2	4.5	8.7	26	70	1.82	10.0	2.35	1	116.0	0.2	0.55	0.62
G285247		25.0	0.36	5	7.0	17.2	6	44	5.05	2.2	3.66	1	89.6	0.7	0.61	9.48
G285248		4.1	0.24	<2	2.5	5.8	29	23	1.25	21.0	1.73	<1	141.0	0.1	0.39	0.69
G285249		19.9	0.34	<2	13.9	17.2	<5	11	4.57	43.2	3.62	2	58.2	0.9	0.62	6.79
G285250		20.6	0.32	<2	16.0	18.3	15	7	4.74	44.4	3.94	3	17.6	1.0	0.71	4.58
G285501		10.7	0.39	<2	6.7	13.1	<5	62	2.91	14.7	3.43	1	87.6	0.4	0.71	2.26
G285502		10.0	0.18	6	1.7	8.9	<5	682	2.28	23.0	2.10	27	31.8	0.1	0.36	1.48
G285503		2.4	0.04	17	<0.2	1.3	<5	484	0.31	3.4	0.33	5	275	<0.1	0.07	0.10
G285504		1.7	0.04	10	<0.2	1.2	<5	574	0.23	7.5	0.32	15	281	<0.1	0.08	<0.05
G285505		8.5	0.16	11	2.3	6.7	<5	4500	1.75	33.6	1.56	39	589	0.2	0.27	1.81
G285506		9.3	0.39	<2	6.1	12.2	36	136	2.89	52.2	3.36	2	90.5	0.3	0.78	1.63
G285507		25.8	0.43	<2	9.3	19.9	6	57	5.23	17.9	4.12	2	77.5	0.7	0.58	7.44
G285508		6.5	0.21	8	2.6	7.3	17	869	1.73	23.8	1.92	17	248	0.2	0.41	0.81
G285509		15.2	0.39	<2	5.9	17.1	16	46	3.88	7.1	4.07	1	123.0	0.3	0.79	0.93
G285510		17.1	0.26	5	6.6	15.6	<5	824	3.94	51.5	3.18	7	23.2	0.5	0.54	4.10
G285511		21.0	0.29	10	10.6	19.4	18	293	5.26	52.8	3.93	5	47.6	0.7	0.69	5.35
G285512		6.7	0.37	<2	5.0	11.1	13	49	2.40	7.3	3.06	2	65.6	0.3	0.66	1.11
G285513		11.3	0.60	<2	6.6	15.1	<5	8	3.39	10.1	4.25	1	44.1	0.4	0.89	2.75
G285514		11.6	0.49	<2	6.5	13.9	<5	12	3.23	69.7	3.53	1	95.1	0.4	0.71	2.80
G285515		31.7	0.28	<2	14.1	27.5	27	21	7.19	145.0	5.68	2	309	0.9	0.75	10.65
G285516		17.3	0.18	<2	14.2	17.8	63	12	4.36	12.8	3.53	1	65.8	0.9	0.50	4.31
G285517		1.0	<0.01	<2	0.2	0.9	<5	<5	0.22	1.6	0.18	<1	135.0	<0.1	0.01	0.09
G285518		7.6	0.26	<2	4.8	10.1	61	<5	2.25	10.3	2.55	1	109.0	0.3	0.52	1.71
G285519		10.9	0.50	<2	3.9	14.0	<5	13	3.17	3.4	3.74	1	197.0	0.3	0.80	2.07
G285520		6.5	0.35	<2	3.7	9.8	<5	19	2.13	35.7	2.98	1	47.8	0.2	0.63	0.88
G285521		11.9	0.48	<2	6.2	14.0	<5	28	3.27	15.9	3.55	1	140.0	0.4	0.73	3.40
G285522		3.7	0.20	<2	2.2	6.1	11	23	1.31	16.7	1.78	1	123.5	0.1	0.38	0.69
G285523		23.6	0.43	<2	10.3	20.9	<5	25	5.44	13.9	4.43	2	122.0	0.7	0.72	8.13
G285524		22.9	0.42	2	13.3	20.4	<5	<5	5.29	20.4	4.34	3	155.5	0.8	0.73	6.58
G285525		9.0	0.29	<2	5.3	11.7	6	30	2.62	6.3	2.81	1	270	0.3	0.54	1.91
G285526		5.9	0.39	<2	5.6	10.5	17	17	2.15	37.6	3.14	1	103.0	0.2	0.72	0.53
G285527		18.1	0.42	2	9.0	16.3	<5	14	4.29	32.0	3.43	2	40.6	0.6	0.58	6.93

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 2 - D
Total # Pages: 5 (A - E)
Finalized Date: 29-OCT-2009
Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42
	Analyte	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	As	Bi	Hg	Sb	Se	Te
Units		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR		0.5	0.01	0.05	5	1	0.5	0.03	5	2	0.1	0.01	0.005	0.05	0.2	0.01
G285238		<0.5	0.44	2.40	38	<1	27.3	2.76	32	193	0.9	0.08	<0.005	0.11	<0.2	0.01
G285239		<0.5	0.33	0.67	428	1	19.5	2.20	159	58	0.1	0.05	<0.005	0.05	<0.2	<0.01
G285240		<0.5	0.36	0.88	185	1	22.2	2.34	68	91	0.5	0.04	<0.005	0.11	0.2	0.01
G285241		<0.5	0.39	2.12	42	1	22.5	2.54	27	160	0.4	0.05	<0.005	0.06	<0.2	0.02
G285242		<0.5	0.29	0.39	220	1	16.3	1.76	83	55	<0.1	0.05	<0.005	0.06	0.2	0.01
G285243		<0.5	0.43	2.24	42	1	25.0	2.67	39	153	0.9	0.10	<0.005	0.05	0.3	0.15
G285244		<0.5	0.06	0.15	12	<1	2.2	0.25	12	10	0.9	0.07	<0.005	<0.05	<0.2	0.04
G285245		<0.5	0.45	4.55	136	2	29.0	2.64	198	144	4.9	0.12	<0.005	0.08	0.4	0.20
G285246		<0.5	0.31	0.28	158	2	17.8	1.79	106	55	0.6	0.09	<0.005	<0.05	0.2	0.01
G285247		<0.5	0.40	2.47	28	1	22.3	2.43	17	142	0.5	0.08	<0.005	<0.05	0.2	0.01
G285248		<0.5	0.25	0.32	173	1	14.1	1.54	99	40	0.1	0.09	<0.005	<0.05	0.2	0.02
G285249		<0.5	0.34	2.22	47	1	21.9	2.19	90	175	4.3	0.14	<0.005	0.10	<0.2	0.02
G285250		1.0	0.33	1.60	116	2	21.1	2.13	129	133	11.5	2.87	<0.005	0.12	2.6	0.57
G285501		0.8	0.41	0.73	315	1	23.0	2.51	167	103	6.2	0.08	<0.005	0.23	0.2	0.01
G285502		1.5	0.19	2.68	28	1	10.8	1.12	>10000	42	58.7	80.8	17.25	1.84	249	0.61
G285503		0.5	0.04	0.31	<5	1	2.5	0.25	5970	4	>250	135.5	10.05	>250	50.8	0.53
G285504		0.7	0.04	0.89	10	<1	2.8	0.24	>10000	5	45.3	105.0	20.1	3.92	80.9	0.93
G285505		3.6	0.14	1.63	24	2	9.7	1.00	>10000	45	>250	179.5	22.0	99.2	77.1	0.54
G285506		2.9	0.43	0.77	255	2	24.7	2.59	609	83	12.8	2.62	0.444	2.46	1.6	0.03
G285507		0.9	0.39	2.27	56	1	22.4	2.65	164	175	11.6	1.54	0.169	2.22	0.7	<0.01
G285508		0.9	0.25	1.05	124	4	12.2	1.40	8590	54	36.6	48.8	5.51	1.69	47.7	0.20
G285509		<0.5	0.42	0.50	217	5	27.5	2.67	268	75	12.8	0.54	0.101	0.85	0.6	0.01
G285510		1.3	0.28	2.45	37	3	15.2	1.60	2880	119	78.0	107.0	2.55	1.17	232	3.55
G285511		1.0	0.33	3.24	56	4	18.0	2.13	3170	148	48.5	45.4	2.45	0.38	119.0	1.47
G285512		<0.5	0.37	0.36	226	4	22.5	2.56	1215	85	3.9	1.87	0.309	0.08	1.4	0.02
G285513		<0.5	0.58	0.91	<5	1	32.3	4.13	42	129	14.9	0.77	0.018	0.09	0.3	<0.01
G285514		<0.5	0.47	0.91	16	1	25.3	3.02	62	105	5.2	0.19	0.006	0.06	0.4	0.01
G285515		<0.5	0.30	3.81	94	2	19.3	1.96	71	142	2.1	0.10	<0.005	0.05	0.3	0.01
G285516		<0.5	0.17	1.60	79	1	12.8	1.27	60	97	11.5	0.07	0.005	0.25	0.3	0.02
G285517		<0.5	0.01	0.63	<5	<1	1.1	0.08	13	3	<0.1	0.03	<0.005	0.07	0.2	0.01
G285518		<0.5	0.27	0.44	153	2	16.5	1.83	85	70	<0.1	0.03	<0.005	0.05	0.2	0.01
G285519		<0.5	0.46	0.70	93	1	26.7	3.25	51	101	0.4	0.03	<0.005	0.08	0.5	0.03
G285520		<0.5	0.36	0.35	313	1	21.9	2.46	144	61	0.1	0.02	<0.005	<0.05	0.2	<0.01
G285521		<0.5	0.46	1.08	24	1	26.6	3.19	51	118	1.1	0.05	<0.005	<0.05	<0.2	<0.01
G285522		<0.5	0.20	0.19	233	1	12.6	1.48	111	45	<0.1	0.03	<0.005	<0.05	<0.2	0.01
G285523		<0.5	0.44	2.29	34	<1	25.3	3.01	29	195	0.7	0.27	<0.005	0.07	<0.2	<0.01
G285524		<0.5	0.40	1.98	46	1	24.1	2.88	22	210	1.2	0.06	<0.005	0.05	0.3	0.05
G285525		<0.5	0.28	0.49	287	1	18.1	2.04	104	67	0.8	0.04	<0.005	0.10	0.2	0.02
G285526		<0.5	0.42	0.43	165	2	26.7	2.80	146	67	1.8	0.33	<0.005	<0.05	0.4	0.10
G285527		<0.5	0.42	1.70	19	1	21.5	2.69	30	178	2.0	0.23	<0.005	0.05	0.3	0.04

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 2 - E
Total # Pages: 5 (A - E)
Finalized Date: 29-OCT-2009
Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	Cu-OG62	Zn-OG62
	Analyte	LOI	Total	Ag	As	Cd	Co	Cu	Mo	Ni	Pb	Zn	Cu	Zn
	Units LOR	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
G285238		1.18	100.5	<0.5	9	<0.5	5	9	1	2	<1	29		
G285239		4.23	99.3	<0.5	<5	<0.5	23	14	2	3	<1	157		
G285240		3.96	100.0	<0.5	<5	<0.5	18	6	3	5	<1	60		
G285241		1.58	99.7	<0.5	<5	<0.5	3	13	2	2	1	24		
G285242		7.82	99.9	<0.5	6	<0.5	24	41	<1	22	5	79		
G285243		1.78	98.6	<0.5	7	<0.5	4	5	1	<1	<1	40		
G285244		0.77	99.6	<0.5	<5	<0.5	1	3	1	9	<1	13		
G285245		3.23	98.5	<0.5	<5	1.1	16	119	1	46	<1	183		
G285246		5.48	98.4	<0.5	5	<0.5	25	2	<1	24	6	94		
G285247		0.89	99.3	0.5	<5	<0.5	1	9	5	1	<1	13		
G285248		9.42	100.5	<0.5	6	<0.5	25	29	1	25	<1	100		
G285249		3.08	99.3	<0.5	8	<0.5	6	16	1	1	8	87		
G285250		6.12	98.3	<0.5	17	<0.5	26	197	2	13	<1	120		
G285501		3.98	98.5	<0.5	17	<0.5	22	18	1	<1	37	160		
G285502		22.6	98.0	39.6	60	64.1	68	1745	7	8	2990	>10000		2.67
G285503		27.3	98.4	74.2	916	33.6	216	>10000	24	10	2940	9700	2.09	
G285504		25.3	97.8	55.4	61	76.1	100	>10000	14	14	2260	>10000	2.71	2.62
G285505		19.15	86.6	84.2	292	73.7	118	>10000	15	12	5420	>10000	2.40	2.25
G285506		4.14	100.0	1.2	18	1.2	30	349	<1	31	100	499		
G285507		1.08	98.8	0.9	18	0.6	4	166	1	3	58	165		
G285508		14.45	98.2	14.3	33	38.3	54	3830	10	22	1250	9990		
G285509		7.31	99.0	<0.5	21	0.6	25	156	1	15	28	230		
G285510		17.75	99.2	42.1	78	15.7	146	>10000	7	5	1490	3290	1.900	
G285511		12.45	95.0	17.5	41	14.8	81	>10000	11	6	665	3640	1.435	
G285512		4.77	98.1	0.5	11	1.0	28	226	1	15	47	1420		
G285513		1.54	98.6	<0.5	16	<0.5	2	34	1	1	<1	48		
G285514		2.70	98.6	<0.5	8	<0.5	2	22	1	<1	4	66		
G285515		3.85	99.5	<0.5	5	<0.5	13	35	1	26	9	75		
G285516		4.34	100.0	<0.5	23	<0.5	18	50	1	69	3	62		
G285517		41.2	100.0	<0.5	<5	<0.5	<1	4	1	4	8	19		
G285518		4.77	98.0	<0.5	5	<0.5	22	6	1	63	<1	92		
G285519		0.79	100.0	<0.5	<5	<0.5	10	59	1	3	<1	50		
G285520		4.00	100.5	<0.5	<5	<0.5	25	<1	<1	3	2	144		
G285521		0.99	99.8	<0.5	<5	<0.5	5	31	<1	<1	4	51		
G285522		5.47	99.5	<0.5	<5	<0.5	26	2	<1	12	5	109		
G285523		0.20	99.7	<0.5	5	<0.5	6	17	2	2	2	30		
G285524		1.19	99.7	<0.5	10	<0.5	9	20	3	1	<1	22		
G285525		3.16	98.6	<0.5	<5	<0.5	23	38	<1	6	19	105		
G285526		5.37	98.2	<0.5	5	<0.5	29	76	1	20	3	162		
G285527		1.47	98.4	<0.5	5	<0.5	2	5	2	1	6	33		

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 3 - B

Total # Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	S-IR08	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte	S	Ag	Ba	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Ho
Units	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR	0.01	1	0.5	0.5	0.5	10	0.01	5	0.05	0.03	0.03	0.1	0.05	0.2	0.01	
G285528	5.68	1	707	46.1	17.9	10	0.20	599	4.68	2.80	0.53	16.2	5.09	4.6	0.94	
G285529	31.6	29	>10000	11.9	35.5	<10	0.32	4040	1.37	0.81	1.15	10.4	1.59	1.2	0.23	
G285530	1.04	7	>10000	11.2	7.5	40	0.26	2620	2.57	1.98	0.80	18.8	2.11	1.1	0.57	
G285531	44.3	18	>10000	6.2	100.0	<10	0.06	>10000	0.58	0.30	0.64	6.9	0.75	0.7	0.04	
G285532	1.32	1	1755	34.8	15.3	20	0.36	228	3.73	2.34	0.62	16.3	3.99	3.8	0.79	
G285533	0.11	<1	836	46.3	2.4	10	0.45	116	5.60	3.78	1.07	15.0	5.77	5.5	1.18	
G285534	0.85	<1	1035	29.6	15.8	20	1.59	95	3.90	2.48	1.02	16.7	3.85	3.4	0.81	
G285535	8.01	1	535	23.9	57.5	<10	0.15	2540	2.97	2.26	0.36	18.9	2.50	3.8	0.70	
G285536	0.17	<1	478	17.6	7.1	<10	0.21	37	4.49	2.93	1.05	15.9	3.80	2.5	0.95	
G285537	1.37	<1	629	29.3	10.4	10	1.06	42	4.86	3.09	1.03	16.3	4.57	3.2	1.02	
G285538	0.08	<1	1125	67.8	16.5	110	4.49	19	3.90	2.12	1.58	16.6	5.61	3.8	0.69	
G285539	0.40	<1	177.5	11.3	6.8	30	0.42	34	0.65	0.44	0.20	5.2	0.88	0.8	0.12	
G285540	<0.01	<1	142.5	1.6	1.3	<10	0.09	<5	0.19	0.08	0.05	1.3	0.17	0.2	0.01	
G285541	0.12	<1	670	40.8	29.6	310	3.13	<5	4.43	2.31	1.86	21.4	5.65	3.6	0.82	
G285542	0.10	<1	202	37.8	10.4	10	0.68	<5	3.83	2.37	1.04	15.9	4.20	3.8	0.75	
G285543	19.60	<1	16.3	15.7	77.0	<10	0.11	400	1.13	0.77	0.12	8.8	1.45	1.3	0.16	
G285544	11.35	<1	23.0	16.7	15.7	20	0.05	72	0.97	0.56	0.34	13.2	1.53	1.3	0.12	
G285545	0.04	<1	36.6	15.7	29.8	<10	0.02	<5	3.13	1.96	0.85	18.4	2.84	1.7	0.63	
G285546	0.03	<1	132.0	49.7	4.3	10	0.60	<5	5.06	3.18	1.05	16.2	5.40	6.1	0.99	
G285547	8.44	3	103.5	11.4	92.1	550	0.31	7690	4.82	3.09	1.38	21.8	3.92	1.8	1.07	
G285548	0.61	<1	544	43.0	14.2	10	0.32	38	4.85	2.86	1.36	17.1	4.93	4.1	0.97	
G285549	1.45	<1	199.5	8.1	35.8	90	0.29	240	2.66	1.77	0.79	15.9	2.29	1.3	0.55	
G285550	0.08	<1	327	12.7	19.7	40	0.70	27	3.01	2.03	0.68	14.4	2.41	1.8	0.65	
G285551	0.02	<1	267	13.2	30.8	10	0.09	16	2.77	1.83	0.74	16.9	2.59	1.4	0.58	
G285552	0.06	<1	412	44.1	4.0	10	0.17	5	4.08	2.54	0.83	13.7	4.30	4.9	0.83	
G285553	0.01	<1	40.4	10.8	31.3	100	0.03	45	2.23	1.34	0.68	13.6	2.03	0.9	0.40	
G285554	1.08	3	45.7	23.3	46.1	30	0.24	4300	2.11	1.44	0.59	12.0	1.75	1.1	0.34	
G285555	0.06	<1	182.5	35.8	8.6	10	0.33	23	4.08	2.57	1.19	15.2	4.45	3.7	0.86	
G285556	0.32	1	79.6	15.7	14.4	130	0.10	1600	3.25	1.96	0.78	16.8	3.06	1.7	0.64	
G285557	43.3	24	550	9.2	46.8	<10	<0.01	4610	0.72	0.41	0.19	4.9	0.84	0.7	0.05	
G285558	0.21	<1	949	40.7	7.2	10	0.17	65	3.57	2.54	0.91	13.9	3.71	4.9	0.79	
G285559	5.51	5	7150	17.7	25.4	60	0.19	704	2.97	1.90	0.76	13.4	2.74	2.1	0.63	
G285560	2.63	<1	228	10.1	34.1	60	0.25	127	2.73	1.87	0.72	16.9	2.26	1.1	0.61	
G285561	0.04	<1	826	28.8	16.4	<10	0.99	60	5.43	3.35	1.33	18.2	4.94	3.4	1.11	
G285562	0.03	<1	596	47.0	3.0	10	0.86	6	5.41	3.41	1.06	16.0	5.04	5.7	1.11	
G285563	0.87	<1	855	31.4	28.0	40	0.20	88	2.15	1.24	0.69	12.5	2.43	2.3	0.42	
G285564	0.02	<1	325	50.3	1.7	10	0.26	<5	5.45	3.47	0.94	12.1	5.43	5.8	1.11	
G285565	<0.01	<1	235	39.9	13.1	10	0.62	<5	3.94	2.21	1.08	16.0	4.03	4.2	0.73	
G285566	0.02	<1	42.8	38.3	10.4	70	0.09	<5	2.81	1.76	0.56	13.8	3.02	4.6	0.55	
G285567	0.01	<1	558	32.7	6.5	30	0.64	<5	4.02	2.69	0.94	13.4	3.73	4.0	0.84	

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 3 - C

Total # Pages: 5 (A - E)

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Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte	La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th
Units		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR		0.5	0.01	2	0.2	0.1	5	5	0.03	0.2	0.03	1	0.1	0.1	0.01	0.05
G285528		23.2	0.40	4	13.4	21.6	<5	46	5.56	38.3	4.69	4	23.3	0.9	0.79	6.55
G285529		6.6	0.06	9	1.8	5.8	<5	4530	1.46	24.1	1.12	43	469	0.1	0.17	1.39
G285530		5.7	0.31	<2	5.5	6.9	13	340	1.50	37.9	1.67	36	130.0	0.4	0.36	0.90
G285531		4.2	<0.01	9	1.0	3.0	<5	2120	0.74	7.3	0.51	33	314	<0.1	0.01	0.76
G285532		16.7	0.34	<2	10.4	16.9	8	313	4.20	59.1	3.63	4	56.8	0.7	0.64	5.05
G285533		22.6	0.56	<2	11.7	22.6	<5	25	5.71	49.7	5.00	2	47.2	0.8	0.92	7.47
G285534		14.5	0.37	<2	8.5	14.7	8	346	3.58	95.2	3.46	2	37.2	0.5	0.64	4.33
G285535		11.3	0.24	2	10.2	11.3	6	47	2.88	15.3	2.54	3	24.1	0.7	0.46	5.15
G285536		7.8	0.42	<2	5.3	11.3	<5	25	2.45	15.6	3.09	1	85.4	0.3	0.68	1.85
G285537		14.1	0.45	<2	8.1	15.9	<5	65	3.79	53.4	4.09	1	51.0	0.5	0.77	3.10
G285538		35.9	0.26	<2	15.1	29.5	23	32	7.86	150.0	5.80	2	202	1.0	0.73	12.10
G285539		5.6	0.05	<2	3.3	4.7	21	14	1.26	24.0	0.91	1	39.3	0.2	0.11	1.52
G285540		0.9	<0.01	<2	0.8	0.9	<5	<5	0.21	3.0	0.13	<1	286	<0.1	<0.01	0.10
G285541		20.4	0.27	<2	33.0	22.7	149	<5	5.24	39.6	5.29	2	179.5	2.0	0.81	2.48
G285542		18.5	0.33	7	10.5	18.1	9	5	4.68	19.8	4.19	2	213	0.7	0.64	5.85
G285543		7.3	0.02	15	1.3	6.8	<5	11	1.69	0.5	1.33	3	12.4	0.1	0.11	2.53
G285544		7.4	0.01	<2	1.7	7.7	6	17	1.90	1.3	1.13	11	66.0	0.1	0.10	2.59
G285545		6.9	0.26	2	3.1	10.2	6	10	2.15	0.3	2.62	1	359	0.2	0.48	1.41
G285546		24.6	0.46	<2	14.5	22.9	<5	7	5.83	11.1	4.71	2	102.0	1.0	0.81	8.09
G285547		5.7	0.34	11	2.3	7.8	130	15	1.58	3.0	2.58	2	182.0	0.1	0.71	0.31
G285548		21.1	0.38	<2	14.3	21.2	<5	15	5.25	14.2	4.57	1	269	1.1	0.77	5.42
G285549		3.6	0.22	<2	1.7	6.1	48	13	1.24	9.6	1.82	2	76.8	0.1	0.40	0.41
G285550		5.9	0.28	<2	3.4	7.4	12	16	1.68	26.8	2.03	1	57.8	0.3	0.43	1.52
G285551		5.9	0.23	<2	2.6	8.4	6	37	1.82	1.4	2.28	1	336	0.2	0.46	1.08
G285552		21.8	0.40	2	11.5	19.8	<5	<5	5.18	10.9	4.00	1	136.0	1.0	0.65	7.13
G285553		4.8	0.15	<2	1.8	7.3	47	<5	1.56	0.3	1.96	<1	249	0.1	0.35	0.75
G285554		10.6	0.11	3	1.6	9.6	36	<5	2.53	0.4	1.92	7	24.4	0.3	0.22	3.88
G285555		17.1	0.34	<2	9.8	18.3	7	<5	4.45	6.1	4.06	2	176.5	0.7	0.70	4.53
G285556		7.3	0.24	<2	5.6	9.4	33	60	2.15	3.3	2.48	7	76.9	0.3	0.50	1.35
G285557		5.1	<0.01	9	0.7	4.3	<5	1330	1.05	3.8	0.68	4	16.4	<0.1	0.06	0.99
G285558		21.5	0.35	<2	9.2	17.2	5	50	4.60	23.7	3.64	2	56.7	0.8	0.61	7.57
G285559		8.6	0.27	4	4.6	9.4	23	1540	2.20	33.8	2.33	31	104.5	0.3	0.45	2.18
G285560		4.5	0.25	<2	2.4	7.1	25	9	1.49	5.4	1.93	2	58.8	0.1	0.39	0.64
G285561		13.0	0.41	2	7.0	16.8	<5	19	3.82	47.4	4.38	1	128.5	0.5	0.82	3.04
G285562		23.5	0.50	<2	11.2	22.0	<5	<5	5.55	44.2	4.65	2	78.5	0.9	0.86	7.67
G285563		16.5	0.16	<2	5.9	12.3	22	<5	3.29	0.2	2.28	5	140.5	0.4	0.37	4.14
G285564		24.8	0.52	4	11.8	23.7	<5	<5	6.16	9.7	5.33	3	179.5	0.9	0.91	7.82
G285565		20.1	0.27	<2	16.5	18.5	12	<5	4.72	15.9	3.91	2	189.0	1.3	0.62	5.12
G285566		19.5	0.24	4	10.2	16.1	18	5	4.34	1.2	3.01	1	107.5	0.8	0.45	7.02
G285567		15.8	0.38	<2	8.6	15.9	8	9	4.01	23.2	3.54	3	121.0	0.7	0.63	6.08

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 3 - E

Total # Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	Cu-OG62	Zn-OG62
	Analyte	LOI	Total	Ag	As	Cd	Co	Cu	Mo	Ni	Pb	Zn	Cu	Zn
	Units LOR	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.5	5	0.5	1	1	1	1	1	2	0.001	0.001
G285528		6.44	98.3	0.5	24	<0.5	16	739	5	<1	12	126		
G285529		21.3	94.5	75.4	147	121.0	60	8190	11	11	8520	>10000		4.16
G285530		6.59	98.6	25.5	416	7.0	7	7560	1	18	407	3050		
G285531		27.0	93.6	74.1	285	64.7	225	>10000	10	13	4510	>10000	3.45	2.11
G285532		3.80	99.4	1.5	25	1.2	14	306	<1	2	340	318		
G285533		0.49	100.0	0.5	<5	<0.5	2	145	1	<1	26	133		
G285534		3.76	100.5	0.6	10	5.6	16	134	2	9	415	1580		
G285535		7.55	99.0	1.7	47	<0.5	53	3460	2	1	38	126		
G285536		2.27	100.5	<0.5	6	<0.5	4	49	1	<1	<1	89		
G285537		3.16	100.5	<0.5	16	<0.5	10	57	2	2	32	63		
G285538		2.98	98.2	<0.5	6	<0.5	14	20	1	22	10	64		
G285539		0.40	98.6	<0.5	19	<0.5	7	41	1	21	<1	28		
G285540		44.0	98.2	<0.5	<5	<0.5	<1	1	1	<1	2	13		
G285541		12.30	98.1	<0.5	<5	<0.5	23	2	<1	147	5	122		
G285542		1.58	98.5	<0.5	<5	<0.5	10	1	7	4	4	15		
G285543		9.79	98.4	1.1	37	<0.5	102	1000	16	10	9	43		
G285544		7.16	100.0	<0.5	38	<0.5	11	108	<1	2	5	33		
G285545		2.38	99.8	<0.5	9	<0.5	25	2	3	2	1	46		
G285546		1.19	98.9	<0.5	<5	<0.5	4	<1	<1	2	1	17		
G285547		9.26	98.2	7.7	7	<0.5	91	>10000	15	136	3	91	1,115	
G285548		2.94	98.2	<0.5	7	<0.5	15	57	2	1	3	79		
G285549		6.76	98.1	<0.5	<5	<0.5	32	320	<1	43	4	143		
G285550		4.49	98.2	<0.5	5	<0.5	19	35	<1	11	3	93		
G285551		2.67	98.6	<0.5	5	<0.5	28	16	<1	3	6	99		
G285552		1.49	98.8	<0.5	<5	<0.5	4	5	3	<1	<1	20		
G285553		1.90	98.2	<0.5	10	<0.5	29	54	1	47	<1	70		
G285554		0.89	98.1	5.6	20	0.6	41	5430	2	30	5	103		
G285555		1.29	98.1	<0.5	<5	<0.5	7	20	<1	1	3	24		
G285556		5.38	98.3	1.0	8	3.2	12	2300	1	29	56	3800		
G285557		26.6	98.9	60.7	100	81.7	98	>10000	11	10	2480	>10000	1.060	2.97
G285558		1.78	98.0	<0.5	14	<0.5	6	71	<1	<1	45	144		
G285559		7.19	98.1	13.9	13	25.6	21	1265	5	21	2690	9800		
G285560		5.87	98.2	<0.5	<5	<0.5	34	190	1	22	11	165		
G285561		2.75	98.1	<0.5	<5	<0.5	19	58	2	2	28	171		
G285562		1.89	98.1	<0.5	<5	<0.5	6	3	2	2	4	16		
G285563		6.19	98.1	<0.5	12	<0.5	28	97	<1	21	4	48		
G285564		1.40	99.3	<0.5	<5	<0.5	2	1	4	2	3	7		
G285565		2.84	100.5	<0.5	<5	<0.5	16	1	1	12	2	25		
G285566		2.59	99.2	<0.5	<5	<0.5	11	<1	4	15	2	85		
G285567		2.75	98.9	<0.5	<5	<0.5	9	<1	<1	9	2	15		

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Page: 4 - C

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CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte	La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm	Sn	Sr	Ta	Tb
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR	0.5	0.01	2	0.2	0.1	5	5	0.03	0.2	0.03	1	0.1	0.1	0.1	0.01
G285568	21.6	0.09	<2	5.4	15.2	24	5	4.26	0.8	3.03	7	144.5	0.4	0.30	7.33
G285569	22.6	0.48	<2	10.2	19.4	<5	<5	5.19	6.9	4.30	1	91.5	0.9	0.73	8.20
G285570	10.7	0.44	<2	4.6	14.6	<5	<5	3.32	13.5	3.82	1	293	0.3	0.69	2.29
G285571	15.7	0.23	2	8.9	14.7	22	<5	3.84	3.5	3.09	2	98.6	0.7	0.47	4.95
G285572	15.0	0.25	2	9.9	15.3	10	<5	3.85	19.9	3.38	2	48.5	0.7	0.50	3.78
G285573	23.5	0.38	2	14.0	21.9	6	<5	5.71	17.4	4.56	2	64.9	1.1	0.71	7.65
G285574	16.5	0.35	2	9.2	16.8	<5	<5	4.20	29.2	3.92	2	155.5	0.7	0.67	4.69
G285575	4.2	0.29	<2	3.7	8.5	6	13	1.67	13.5	2.46	1	436	0.2	0.54	0.27
G285576	19.7	0.37	<2	10.6	17.8	10	<5	4.64	8.8	3.81	3	112.5	0.8	0.64	6.37
G285577	4.7	0.26	<2	2.9	7.3	25	5	1.54	7.2	2.10	1	106.0	0.2	0.45	0.80
G285578	12.4	0.51	<2	6.2	14.4	<5	<5	3.35	30.4	3.73	1	125.5	0.5	0.78	3.60
G285579	13.8	0.41	<2	8.0	15.0	5	<5	3.53	11.5	3.82	3	244	0.5	0.70	3.82
G285580	6.4	0.29	<2	4.6	9.3	6	21	2.01	12.6	2.62	1	143.5	0.2	0.52	0.93
G285581	16.1	0.36	<2	8.7	15.7	26	14	3.98	45.0	3.66	2	88.6	0.6	0.62	4.15
G285582	26.0	0.38	<2	18.3	23.5	<5	9	6.15	86.7	4.89	4	41.5	1.4	0.76	6.55
G285583	12.3	0.30	3	7.0	11.9	16	247	2.97	11.4	2.72	4	41.2	0.5	0.50	3.41
G285584	5.0	0.08	3	0.5	4.4	<5	1435	1.08	4.9	0.98	1	23.9	<0.1	0.18	0.66
G285585	19.8	0.52	<2	10.4	19.4	<5	19	4.89	32.2	4.62	2	49.9	0.7	0.80	5.77
G285586	7.6	0.25	<2	4.2	8.4	22	22	1.99	28.5	2.05	3	42.8	0.3	0.37	1.57
G285587	9.1	0.10	<2	3.7	7.2	65	21	1.94	36.7	1.43	1	16.6	0.3	0.19	3.30
G285588	21.8	0.32	3	8.9	18.9	51	12	5.01	94.3	3.74	2	70.3	0.7	0.54	7.67
G285589	17.5	0.19	5	9.9	14.1	29	9	3.81	46.6	2.73	1	44.1	0.7	0.40	5.24
G285590	2.7	0.05	<2	1.3	2.5	8	<5	0.65	11.3	0.51	1	9.2	0.1	0.09	0.60
G285591	24.2	0.46	<2	12.4	20.4	6	13	5.46	92.2	4.44	2	69.0	0.9	0.74	7.48
G285592	36.0	0.32	<2	13.5	27.3	28	13	7.45	165.0	5.35	1	267	1.0	0.73	12.80
G285593	5.1	0.07	<2	4.5	4.2	10	9	1.10	17.8	0.92	<1	54.9	0.3	0.15	1.32
G285594	7.5	0.33	<2	3.6	10.8	<5	21	2.44	17.4	2.90	2	104.0	0.2	0.54	1.57
G285595	10.4	0.56	<2	4.7	13.3	<5	<5	3.04	39.4	3.69	1	65.0	0.4	0.79	2.43
G285596	7.8	0.33	<2	3.3	9.7	5	7	2.31	3.7	2.65	1	112.5	0.3	0.48	1.61
G285597	24.6	0.50	2	10.5	22.1	<5	<5	5.81	5.6	4.85	2	147.5	0.9	0.80	8.25
G285598	17.4	0.29	2	8.8	15.1	25	<5	3.99	6.5	3.09	2	276	0.7	0.52	5.46
G285599	23.6	0.40	2	11.1	21.2	6	<5	5.52	10.2	4.51	2	228	0.8	0.70	7.73
G285600	3.3	0.19	<2	1.7	5.3	65	<5	1.11	0.2	1.61	<1	211	0.1	0.33	0.39
G285601	23.5	0.48	<2	9.9	20.3	<5	<5	5.48	1.9	4.33	1	213	0.9	0.73	7.88
G285602	27.5	0.47	3	9.9	24.3	<5	9	6.38	21.4	5.14	5	1000	0.8	0.85	6.89
G285603	24.3	0.42	<2	12.3	22.1	5	<5	5.79	8.6	4.68	2	214	0.9	0.77	7.52
G285604	18.9	0.27	2	8.8	15.2	18	<5	4.12	10.4	3.05	2	149.0	0.7	0.48	5.87
G285605	12.0	0.57	<2	5.5	14.7	<5	<5	3.41	16.0	3.94	1	136.5	0.4	0.84	2.71
G285606	3.7	0.25	<2	1.8	6.0	49	<5	1.28	1.6	1.75	<1	77.7	0.1	0.40	0.41
G285607	12.1	0.54	3	5.0	13.8	<5	<5	3.22	15.8	3.82	1	118.0	0.4	0.80	2.57

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 4 - D

Total Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	
	Analyte	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	As	Bi	Hg	Sb	Se	Te
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.5	0.01	0.05	5	1	0.5	0.03	5	2	0.1	0.01	0.005	0.05	0.2	0.01
G285568		<0.5	0.13	2.58	51	5	10.1	1.23	82	139	1.7	0.62	0.061	0.06	22.2	1.13
G285569		<0.5	0.48	2.31	13	1	26.1	3.10	6	179	0.4	0.03	<0.005	0.06	0.3	<0.01
G285570		<0.5	0.44	0.91	73	2	24.8	2.91	13	106	0.6	0.01	<0.005	0.09	0.2	<0.01
G285571		<0.5	0.25	1.41	113	2	15.7	1.69	125	132	0.8	0.64	0.009	<0.05	2.4	0.29
G285572		<0.5	0.26	1.12	134	2	16.5	1.74	63	117	4.5	1.17	0.011	0.05	2.7	0.60
G285573		<0.5	0.41	2.27	19	2	24.2	2.75	28	213	1.0	0.38	<0.005	0.05	0.5	0.06
G285574		<0.5	0.36	1.55	123	2	23.5	2.42	44	136	0.3	0.02	<0.005	<0.05	0.3	0.02
G285575		<0.5	0.29	0.11	349	2	18.7	2.12	96	41	0.4	0.04	<0.005	0.08	0.3	0.02
G285576		<0.5	0.36	1.98	82	2	21.8	2.55	36	190	0.2	0.03	<0.005	0.06	0.3	0.01
G285577		<0.5	0.27	0.28	251	2	15.8	1.85	88	50	<0.1	0.01	<0.005	0.05	0.3	0.01
G285578		<0.5	0.50	1.11	27	6	29.0	3.41	39	123	0.5	0.02	<0.005	0.15	0.3	0.01
G285579		<0.5	0.43	1.19	170	2	24.8	2.72	71	133	0.6	0.10	<0.005	0.07	0.2	0.03
G285580		<0.5	0.32	0.41	375	2	18.9	2.04	142	65	1.0	0.03	<0.005	0.12	0.3	0.04
G285581		<0.5	0.35	1.17	191	3	23.8	2.29	118	110	1.0	0.30	<0.005	0.09	0.5	0.05
G285582		1.3	0.39	1.79	159	4	26.8	2.45	71	154	5.9	0.63	<0.005	0.09	1.1	0.23
G285583		0.9	0.29	1.15	103	4	19.1	1.89	1840	90	24.5	34.6	1.295	0.52	67.5	0.36
G285584		<0.5	0.11	3.01	<5	4	5.7	0.44	2510	19	62.7	116.0	2.74	0.90	>250	0.72
G285585		<0.5	0.50	1.44	38	3	31.4	3.36	104	165	5.9	0.60	0.026	0.16	1.6	0.04
G285586		<0.5	0.23	0.56	205	5	13.8	1.52	152	54	7.0	4.12	0.028	<0.05	23.8	2.85
G285587		<0.5	0.10	0.78	41	3	5.4	0.66	45	43	7.2	1.67	0.038	0.06	1.5	2.21
G285588		<0.5	0.28	2.79	127	4	19.0	2.03	93	94	43.1	0.84	0.008	0.11	1.6	0.18
G285589		<0.5	0.20	2.88	102	3	13.3	1.29	61	60	189.0	0.59	0.012	0.16	1.2	0.23
G285590		<0.5	0.07	0.26	12	2	3.3	0.32	24	11	13.1	0.70	<0.005	0.09	0.3	0.08
G285591		<0.5	0.42	2.28	43	2	28.0	2.82	74	143	2.1	0.27	0.005	0.07	0.5	0.04
G285592		<0.5	0.31	4.47	110	7	21.0	2.00	55	130	2.1	0.12	<0.005	0.12	0.5	0.03
G285593		<0.5	0.08	0.46	21	4	4.9	0.46	42	21	6.8	0.26	0.008	0.31	0.3	0.04
G285594		<0.5	0.31	0.65	238	2	20.1	2.10	153	55	10.6	0.90	0.008	0.07	4.8	1.12
G285595		<0.5	0.55	1.15	6	2	32.7	3.73	56	111	0.1	0.05	<0.005	<0.05	0.2	0.01
G285596		<0.5	0.30	0.52	222	2	18.5	2.03	75	62	0.2	0.05	0.005	0.10	0.2	0.02
G285597		<0.5	0.47	2.25	7	2	28.3	3.10	6	182	1.5	0.12	<0.005	0.11	<0.2	0.01
G285598		<0.5	0.29	1.42	147	1	18.2	1.92	29	119	0.6	0.06	<0.005	0.13	<0.2	0.01
G285599		<0.5	0.38	1.95	41	2	23.6	2.48	24	145	1.5	0.07	<0.005	0.10	0.2	0.01
G285600		<0.5	0.20	0.13	226	2	12.0	1.31	104	29	0.5	0.35	<0.005	0.11	0.2	0.24
G285601		<0.5	0.46	2.11	23	2	25.9	3.03	13	180	0.5	0.05	<0.005	0.10	<0.2	0.01
G285602		<0.5	0.48	2.42	159	2	29.7	3.22	11	138	2.4	0.16	<0.005	0.31	0.3	0.01
G285603		<0.5	0.42	1.93	47	2	25.7	2.80	13	151	0.8	0.02	<0.005	0.07	<0.2	<0.01
G285604		<0.5	0.27	1.48	113	2	15.5	1.74	47	123	1.0	0.85	0.009	0.06	0.7	0.45
G285605		<0.5	0.55	0.90	15	2	31.1	3.68	13	106	0.1	0.10	<0.005	<0.05	0.2	0.01
G285606		<0.5	0.25	0.19	219	1	15.8	1.63	142	40	0.1	0.04	<0.005	0.05	0.2	0.01
G285607		<0.5	0.52	0.94	11	2	29.5	3.48	14	97	0.1	0.12	<0.005	<0.05	0.2	0.03

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 4 - E
Total # Pages: 5 (A - E)
Finalized Date: 29-OCT-2009
Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method Analyte Units LOR	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	Cu-OG62	Zn-OG62
		LOI	Total	Ag	As	Cd	Co	Cu	Mo	Ni	Pb	Zn	Cu	Zn
		%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.5	5	0.5	1	1	1	1	1	1	0.001	0.001
G285568		6.20	98.0	0.7	<5	<0.5	30	700	<1	15	1	87		
G285569		1.19	98.3	<0.5	<5	<0.5	3	2	1	2	1	4		
G285570		1.26	99.0	<0.5	<5	<0.5	12	1	<1	2	4	8		
G285571		3.57	98.1	<0.5	<5	<0.5	20	204	2	21	7	131		
G285572		6.58	98.2	<0.5	10	<0.5	22	20	2	4	<1	59		
G285573		2.37	98.1	<0.5	<5	<0.5	7	10	2	1	2	27		
G285574		3.10	98.2	<0.5	<5	<0.5	15	152	1	1	5	43		
G285575		3.53	98.3	<0.5	<5	<0.5	31	60	<1	6	13	97		
G285576		3.00	98.1	<0.5	<5	<0.5	12	33	1	5	4	35		
G285577		7.11	98.2	<0.5	<5	<0.5	31	26	<1	25	3	90		
G285578		1.78	98.1	<0.5	<5	<0.5	8	20	<1	3	5	38		
G285579		2.76	99.5	<0.5	<5	<0.5	26	4	<1	4	6	72		
G285580		3.91	100.5	<0.5	<5	<0.5	35	11	<1	4	17	144		
G285581		5.15	98.7	<0.5	<5	<0.5	25	18	<1	25	14	112		
G285582		4.37	98.7	<0.5	11	<0.5	20	39	1	3	10	68		
G285583		9.95	98.9	8.6	23	3.0	73	1985	2	10	278	2100		
G285584		28.6	98.8	66.1	66	32.7	187	3330	2	<1	2250	3010		
G285585		2.65	99.1	<0.5	9	<0.5	10	16	1	2	15	105		
G285586		7.20	98.4	1.4	<5	<0.5	32	571	1	20	17	157		
G285587		2.47	98.8	1.1	8	<0.5	15	72	1	52	29	43		
G285588		3.58	98.7	<0.5	38	<0.5	15	85	4	43	16	92		
G285589		3.40	99.6	<0.5	156	<0.5	10	86	6	25	12	58		
G285590		1.10	99.6	<0.5	11	<0.5	4	29	1	8	4	21		
G285591		3.63	99.7	<0.5	6	<0.5	9	12	1	6	14	74		
G285592		4.98	98.2	<0.5	<5	<0.5	18	20	1	27	12	54		
G285593		3.08	100.5	<0.5	8	<0.5	6	23	1	10	11	44		
G285594		5.78	99.7	<0.5	16	<0.5	32	82	2	1	22	154		
G285595		1.57	98.8	<0.5	5	<0.5	4	27	<1	<1	7	59		
G285596		5.23	99.4	<0.5	7	0.6	21	29	2	3	<1	74		
G285597		0.57	99.4	<0.5	5	<0.5	2	3	2	1	<1	5		
G285598		3.19	99.0	<0.5	<5	<0.5	20	1	2	24	<1	27		
G285599		2.29	98.9	<0.5	5	<0.5	7	9	3	3	<1	21		
G285600		6.35	99.9	<0.5	<5	<0.5	31	126	<1	60	3	107		
G285601		0.98	100.0	<0.5	<5	<0.5	2	3	1	1	<1	14		
G285602		3.19	99.1	<0.5	9	<0.5	<1	6	3	<1	<1	4		
G285603		1.29	100.0	<0.5	<5	<0.5	6	<1	<1	1	1	9		
G285604		4.19	100.5	<0.5	<5	<0.5	20	106	3	18	<1	46		
G285605		2.73	99.5	<0.5	<5	<0.5	3	2	1	<1	<1	10		
G285606		6.24	98.5	<0.5	<5	<0.5	28	23	<1	45	<1	147		
G285607		2.76	100.0	<0.5	6	<0.5	2	12	3	1	<1	13		

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 5 - A

Total # pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	ME-ICP06	C-IR07
		Recvd Wt.	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	Cr2O3	TiO2	MnO	P2O5	SrO	BaO	C
		kg	%	%	%	%	%	%	%	%	%	%	%	%	%	%
		0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
G285608		0.64	46.9	16.15	10.30	6.34	8.05	4.90	0.04	0.01	0.68	0.17	0.08	0.02	<0.01	0.74
G285609		0.48	58.8	13.00	11.20	1.48	4.98	3.90	0.07	0.01	0.76	0.12	0.13	0.01	0.01	0.05
G285610		0.52	60.1	13.45	9.28	1.05	4.95	4.96	0.08	0.02	0.52	0.07	0.11	0.01	0.02	0.21
G285611		0.54	73.4	12.05	4.04	1.85	0.47	4.93	0.53	<0.01	0.29	0.02	0.05	0.01	0.01	0.24
G285612		0.52	56.3	14.40	9.07	2.50	5.39	3.76	0.70	0.01	0.67	0.11	0.12	0.01	0.04	0.66
G285613		0.58	55.4	14.85	8.42	3.64	6.26	4.10	0.41	0.02	0.60	0.13	0.10	0.02	0.03	0.53
G285614		0.72	67.5	12.75	4.63	3.66	1.94	3.20	0.81	<0.01	0.40	0.11	0.08	0.01	0.05	1.12
G285615		0.40	45.9	15.75	9.83	4.98	6.34	3.62	0.97	0.01	0.75	0.33	0.12	0.01	0.07	1.82
G285616		0.48	61.9	14.40	6.24	4.76	1.76	2.09	2.01	<0.01	0.69	0.16	0.12	0.01	0.05	1.38

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Page: 5 - B

Total # pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method Analyte Units LOR	S-IR08	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	
		S	Ag	Ba	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Ga	Gd	Hf	Ho
		%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
		0.01	1	0.5	0.5	0.5	10	0.01	5	0.05	0.03	0.03	0.1	0.05	0.2	0.01
G285608		<0.01	<1	24.5	8.2	39.5	100	0.14	<5	2.36	1.50	0.64	14.9	2.00	1.0	0.52
G285609		3.25	<1	71.9	26.9	46.2	60	0.15	119	2.81	1.69	0.84	14.7	2.80	2.7	0.60
G285610		2.67	<1	194.5	21.8	20.2	140	0.17	8	2.55	1.68	0.53	15.2	2.30	3.0	0.57
G285611		1.08	<1	139.0	25.0	2.9	10	0.82	<5	5.11	3.33	1.02	13.7	4.40	3.2	1.12
G285612		2.83	<1	380	28.9	19.9	50	0.61	11	2.98	1.84	0.74	15.5	3.04	3.1	0.60
G285613		2.59	<1	272	26.8	27.1	110	0.33	107	2.76	1.81	0.69	15.9	2.81	2.5	0.58
G285614		0.21	<1	415	32.5	7.5	10	0.60	9	5.31	3.47	1.01	15.5	4.61	3.5	1.13
G285615		0.03	<1	692	17.9	21.8	80	0.59	10	3.52	2.30	0.84	19.3	3.12	1.9	0.76
G285616		0.23	<1	432	23.5	8.9	20	1.16	<5	4.45	3.00	1.01	17.1	3.73	3.1	1.00

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 5 - C

Total # Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
	Analyte	La	Lu	Mo	Nb	Nd	Ni	Pb	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th
	Units LOR	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.5	0.01	2	0.2	0.1	5	5	0.03	0.2	0.03	1	0.1	0.1	0.01	0.05
G285608		3.4	0.22	<2	1.6	5.7	51	<5	1.19	0.4	1.72	1	196.0	0.1	0.36	0.33
G285609		12.8	0.27	3	8.7	12.3	19	<5	3.21	1.6	2.66	3	86.4	0.7	0.47	4.89
G285610		10.6	0.28	5	7.8	9.6	23	<5	2.57	1.9	2.08	3	44.8	0.7	0.39	4.78
G285611		11.5	0.55	<2	4.1	13.9	<5	<5	3.22	16.7	3.79	1	107.0	0.3	0.77	2.79
G285612		14.1	0.30	2	8.8	13.1	12	<5	3.46	15.9	2.94	2	73.4	0.7	0.46	4.68
G285613		12.4	0.28	<2	7.1	12.2	22	6	3.21	8.9	2.70	1	146.5	0.5	0.46	4.00
G285614		15.9	0.54	<2	8.7	16.2	<5	<5	3.98	14.1	4.02	2	92.4	0.6	0.80	4.22
G285615		8.1	0.38	<2	6.3	10.3	30	<5	2.39	17.6	2.83	2	84.1	0.3	0.56	1.53
G285616		11.4	0.47	<2	5.9	12.7	<5	11	3.04	35.4	3.25	1	88.5	0.4	0.73	3.38

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 5 - D

Total # pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42
	Analyte	Tl	Tm	U	V	W	Y	Yb	Zn	Zr	As	Bi	Hg	Sb	Se
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
LOR	0.5	0.01	0.05	5	1	0.5	0.03	5	2	0.1	0.01	0.005	0.05	0.2	0.01
G285608	<0.5	0.22	0.14	237	2	13.5	1.47	33	33	0.5	0.03	<0.005	0.08	<0.2	<0.01
G285609	<0.5	0.26	1.17	135	2	15.8	1.65	50	95	4.0	1.03	0.005	0.06	7.8	0.78
G285610	<0.5	0.27	1.12	114	2	13.8	1.67	28	106	2.3	0.36	<0.005	<0.05	3.3	0.35
G285611	<0.5	0.52	0.94	7	5	28.9	3.53	10	104	76.5	0.12	<0.005	0.32	0.2	0.01
G285612	<0.5	0.28	1.11	111	2	16.3	1.91	91	111	1.7	0.49	0.008	<0.05	1.4	0.77
G285613	<0.5	0.27	1.08	173	2	16.5	1.78	75	90	1.9	0.91	0.006	0.05	3.1	0.60
G285614	<0.5	0.54	1.40	38	2	31.1	3.47	41	118	0.1	0.26	<0.005	<0.05	0.4	0.06
G285615	<0.5	0.35	0.55	122	2	20.0	2.32	132	68	<0.1	0.24	0.005	<0.05	0.2	0.14
G285616	<0.5	0.45	1.08	61	2	25.8	2.83	90	112	0.4	0.05	<0.005	<0.05	0.2	<0.01

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 5 - E

Total Pages: 5 (A - E)

Finalized Date: 29-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107974

Sample Description	Method	OA-GRA05	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	Cu-OG62	Zn-OG62
	Analyte	LOI	Total	Ag	As	Cd	Co	Cu	Mo	Ni	Pb	Zn	Cu	Zn
	Units	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
LOR		0.01	0.01	0.5	5	0.5	1	1	1	1	1	2	0.001	0.001
G285608		5.86	99.5	<0.5	<5	<0.5	34	<1	<1	50	4	30		
G285609		4.38	98.9	<0.5	10	<0.5	45	145	3	20	<1	50		
G285610		4.00	98.6	<0.5	11	0.5	20	8	6	23	<1	27		
G285611		2.46	100.0	<0.5	80	<0.5	2	3	1	<1	<1	7		
G285612		5.44	98.5	<0.5	5	<0.5	17	11	2	11	<1	94		
G285613		4.97	99.0	<0.5	<5	<0.5	24	125	1	18	<1	73		
G285614		4.95	100.0	<0.5	<5	<0.5	7	11	1	1	<1	43		
G285615		10.10	98.8	<0.5	<5	<0.5	19	8	<1	27	5	142		
G285616		5.50	99.7	<0.5	8	<0.5	7	4	1	2	6	86		

Comments: Low whole rock totals confirmed by a re-analysis.



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Page: 1

Finalized Date: 14-OCT-2009

Account: F

CERTIFICATE VA09107972

Project: MOR

P.O. No.:

This report is for 1 Soil sample submitted to our lab in Vancouver, BC, Canada on 1-OCT-2009.

The following have access to data associated with this certificate:

AL ARCHER
VANCOUVER OFFICE

DOUG EATON
BILL WENZYNOWSKI

JOAN MARIACHER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:


Colin Ramshaw, Vancouver Laboratory Manager



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Page: 2 - A

Total # Pages: 2 (A - C)

Finalized Date: 14-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107972

Sample Description	Method Analyte Units LOR	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
G285629		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
		0.36	<0.005	<0.2	2.20	12	<10	230	0.5	<2	0.73	0.6	13	39	21	3.14



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Page: 2 - B

Total # Pages: 2 (A - C)

Finalized Date: 14-OCT-2009

Account: F

Project: MOR

CERTIFICATE OF ANALYSIS VA09107972

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
G285629		10	1	0.09	10	0.63	673	1	<0.01	20	960	10	0.05	3	3	21



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Page: 2 - C

Total # Pages: 2 (A - C)

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CERTIFICATE OF ANALYSIS VA09107972

Sample Description	Method Analyte Units LOR	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Th ppm 20	Ti % 0.01	Tl ppm 10	U ppm 10	V ppm 1	W ppm 10	Zn ppm 2
G285629		<20	0.09	<10	<10	60	<10	233

APPENDIX IV

LITHOGEOCHEMISTRY REPORT BY SJP GEOCONSULTING

**Report on the Lithogeochemistry of Volcanic Rocks from the
MOR volcanogenic massive sulfide (VMS) prospect, Yukon,
Canada**

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Provisional Draft

January 18, 2010

Executive Summary

The MOR prospect represents a relatively new VMS discovery within the Yukon-Tanana terrane near Teslin, Yukon. The prospect is associated with basaltic, andesitic, and rhyolitic rocks that have immobile element signatures they range in composition from tholeiitic through transitional to calc-alkalic. The felsic rocks are predominantly transitional to calc-alkalic, FII affinities, and have evidence for interaction with upper continental crust. Mafic to intermediate rocks are dominated by transitional to tholeiitic rocks with lesser calc-alkalic rocks and have Ti-V systematics indicative of formation within a rift environment. All the immobile element data indicate that the various suites of rocks can be related by variable amounts of mixing between more primitive, basaltic end members and continental crust, with the more felsic end-members being almost entirely derived from continental crust, whereas the basaltic rocks are predominantly derived from mantle with minor upper crust contamination. The chemostratigraphic assemblages present in the MOR prospect are indicative of formation within a rift to arc-rift built proximal to or upon continental crust, a setting similar to other VMS belts in the Cordillera (e.g., Finlayson Lake, Eskay Creek, Tulsequah). While not directly similar to the Finlayson Lake District, the MOR prospect has a “petrochemical assemblage” that is broadly similar to other VMS belts hosted by felsic rocks and formed proximal to continental crust (e.g., bimodal felsic to felsic siliciclastic VMS environments).

The mobile element systematics of the MOR prospect host rocks indicate that a significant proportion of samples have evidence for VMS-like alteration, including chlorite-sericite-sulfide with lesser quartz and carbonate alteration, as indicated by the strong alkali (e.g., Na₂O) depletion, Fe₂O₃-MgO-base metal-volatile element enrichment, and elevated alteration index values in many samples. Samples have been ranked using a single “VMS score” that integrates various indicators of VMS-related alteration and mineralization. This VMS score is maximized in samples with numerous indicators of alteration and mineralization, whereas it minimizes values for those samples with lesser indicators of mineralization. The vast majority of samples with high VMS score values are from surface and drill core in the main Discovery Zone of the MOR prospect with much lesser samples from the SD Zone.

It is recommended that further work be concentrated proximal to the Discovery Zone if budgets are limited. If exploration is to be expanded areas with calc-alkalic felsic to andesitic rocks with evidence of alteration and mineralization, and high VMS score values should be concentrated upon. In screening new areas it may be possible to utilize existing government databases (e.g., NATMAP lithogeochemical databases) to screen new areas for VMS potential.

Introduction

The MOR prospect represents a relatively newly discovered volcanogenic massive sulfide (VMS) prospect hosted by rocks of the Yukon-Tanana terrane (YTT) near Teslin, Yukon. The YTT is relatively well endowed with massive sulfide with ~30Mt of VMS mineralization found within the Finlayson Lake district, a potential correlative of the host rocks that host the MOR prospect. In this report lithogeochemical data for host rocks to the MOR prospect are provided in order to: 1) evaluate the primary

chemostratigraphic characteristics of the host volcanic rocks of the MOR prospect; 2) to provide insight into paleotectonic setting of the MOR prospect and to see if it formed in a prospective stratigraphic setting with potential to host VMS mineralization; 3) use the data to provide some comparisons to other VMS-hosting rocks of the YTT, namely the Finlayson Lake District, and other VMS belts globally; 4) to evaluate the mobile alteration and mineralization related signatures of rocks hosting the MOR prospect; and 5) to rank the intensity of alteration and mineralization within the MOR host rocks to evaluate the best potential hosts to mineralization from an alteration/mineralization perspective.

Sampling and Analytical Methods

Samples from the MOR prospect were taken from both surface samples and drill core from the main Discovery Zone area and the SD Zone of the MOR prospect. All samples were collected by Bill Wengzynowski and Marc Blythe in September 2009. Samples were analyzed at ALS-Chemex Laboratories in North Vancouver, Canada for major, trace, and rare-earth elements (REE) using the complete characterization package (CGP-PKG01). Major elements (SiO_2 , Al_2O_3 , Fe_2O_3 , CaO , MgO , Na_2O , K_2O , TiO_2 , MnO , and P_2O_5) and LOI were obtained by lithium metaborate fusion pre-preparation followed by dissolution of the fused bead and subsequent analysis via inductively coupled plasma emission spectroscopy (ICP-ES). Sulfur and C were obtained via Leco, and base metals (Ag, Co, Cu, Mo, Ni, Pb, and Zn) were obtained by four acid digestion and subsequent analysis by ICP-ES. Trace elements and rare earth elements (Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tl, Tm, U, V, W, Y, Yb, and Zr) were obtained via lithium metaborate fusion with subsequent analysis via inductively coupled plasma mass spectrometry (ICP-MS), whereas volatile elements (As, Bi, Hg, Sb, Se, and Te) were obtained via aqua regia digestion and subsequent analysis via ICP-MS. Fusion pre-preparation ensures the complete digestion of resistant phases like zircon, ensuring high quality and complete values for high field strength element (HFSE: Zr, Hf, Nb, Ta, Y) and REE (La-Lu). In contrast, four acid and aqua regia digestions are partial digestions that specifically attack sulfide and weakly held elements and provide ideal results for base metals and volatile elements.

Lithogeochemical Results

Results from the lithogeochemical survey are presented in Figures 1-19. The various ratios, alteration indexes, and other calculations are included in the [attached spreadsheet](#). Data will be treated in two steps: 1) utilizing immobile element geochemistry to understand primary chemostratigraphic and petrologic attributes (i.e., those largely unaffected by subsequent hydrothermal alteration and metamorphism); and 2) mobile element systematics (i.e., those induced by hydrothermal alteration and metamorphism).

Immobile Element Attributes

The immobile element attributes of samples from the MOR prospect are shown in Figures 1-7. These diagrams concentrate on the elements that are largely considered immobile during alteration and metamorphism, including Al_2O_3 , TiO_2 , the high field strength elements (HFSE: Zr, Hf, Nb, Ta, Y) and rare earth elements (REE: La-Lu)(e.g.,

Winchester and Floyd, 1977; Pearce, 1996; Barrett and MacLean, 1999). Despite these elements being considered immobile there are cases in both this dataset, and globally (e.g., Finlow-Bates and Stumpfl, 1981; Campbell et al., 1984; Whitford et al., 1988; Valsami and Cann, 1992), where these elements are mobile, particularly in rocks that are strongly altered by chlorite and sulfide. Despite this, the dataset has been subdivided into rock types based on the Zr-TiO₂ systematics of the samples into four groups (Figs. 1a-c): 1) basaltic rocks (Zr/TiO₂<95); 2) intermediate (andesitic) rocks (Zr/TiO₂ = 95-200); 3) felsic rocks (Zr/TiO₂ = 200-700); and 4) high Zr/Ti felsic rocks (Zr/TiO₂>700). The basaltic rocks have generally low Zr/TiO₂ ratios and Nb/Y<0.7, typical of subalkalic rocks, and generally have higher TiO₂ and Al₂O₃ contents in comparison to other rock types (Figs. 1a-c). The felsic rocks are characterized by generally subalkalic rocks, higher Zr contents, high Zr/TiO₂ ratios, and generally lower Al₂O₃ at a given Zr content (Figs. 1a-c). Intermediate rocks have values and ratios intermediate between the felsic and mafic rocks, and the entire data array forms a continuum from mafic to felsic (Figs. 1a-c). The Zr-Y and Th-Yb systematics illustrate that the rocks can be further divided into magmatic affinities (Figs. 1d-e)(Barrett and MacLean, 1999; Ross and Bedard, 2009). Most basaltic rocks have tholeiitic to transitional affinities, whereas the majority of felsic and andesitic rocks have calc-alkalic to transitional affinities (Figs. 1d-e). The high Zr/Ti samples have very high Zr/Ti ratios above those of the normal felsic rocks (Fig. 1a-b) and likely represent highly fractionated rocks.

Felsic rocks are shown on felsic discrimination diagrams in Figure 2 and shown for comparison are felsic host rocks to the VMS deposits in the Finlayson Lake district (Kudz Ze Kayah, GP4F, and Wolverine)(data from Piercey et al., 2001). In Zr-Nb space the samples generally have lower Zr and Nb contents in comparison to the main host rocks to mineralization, but do overlap, in part, the hanging wall rocks to the Wolverine deposit (Fig. 2a). They have Zr/Yb-Ti/Yb systematics that overlap the Wolverine hanging wall and Cleaver Lake formation (Fig. 2b), and they have volcanic arc type affinities in Nb-Y and Ta-Yb space (Figs. 2c-d)(Pearce et al., 1984). Notably, the high Zr/Ti samples lie overlap the fields for VMS deposits from the Finlayson Lake district (Figs. 2a-d). Figure 2e contains the Zr/Y-Y diagram of Leshner et al. (1986) which was created to discriminate VMS-associated and VMS-barren rhyolitic rocks from the Superior Province in Ontario and Quebec. On this diagram, the most prospective hosts for mineralization are the FIII rhyolites, with the FII rhyolites also being prospective, but less so than the FIII rhyolites, whereas the FI are the least prospective (Fig. 2e). Most samples from the MOR overlap the FII to FIII fields, with the high Zr/Ti samples closest to the FIII fields (Fig. 2e). Notably, in post-Archean settings FII rhyolites are very common hosts to mineralization, particularly in areas partially to fully underlain by continental crusts (Piercey et al., 2001; Hart et al., 2004; Piercey, 2007, 2009). Furthermore, with the exception of some of the transitional felsic samples, most felsic samples lie close to the upper crustal control line (Fig. 2f)(values from McLennan, 2001) suggesting that they have been at least partially influenced by continental crust, hence, likely explaining why FII affinities are dominant at the MOR prospect; FII affinities are also the dominant rhyolite type in the Finlayson Lake district (Piercey et al., 2001; Piercey et al., 2008).

Primitive mantle normalized multi-element plots provide a very compact way to view various elemental groups within a rock and provide a multi-element fingerprint of a

rock that is often proportional the tectonic setting in which that rock formed (e.g., Sun and McDonough, 1989; Pearce and Peate, 1995). In Figure 3 profiles are shown for all samples of a given population, as well screened to remove altered samples (i.e., samples with $\text{Na}_2\text{O} = 2\text{-}5\%$ are shown and all other data are excluded). Notably, the plots with more altered samples (Figs. 3b and 3d) have a much broader spread in trace element signatures suggesting some mobility in the so-called immobile elements, features observed in other VMS-related alteration zones (e.g., Finlow-Bates and Stumpfl, 1981; Campbell et al., 1984; Whitford et al., 1988; Valsami and Cann, 1992). Using only the least altered sample profiles, all populations (high Zr/Ti, calc-alkalic, transitional) have broadly similar patterns with negative Nb and Ti anomalies with low compatible element contents (e.g., Al, V)(Fig. 3). Negative Nb and Ti anomalies have often been attributed to rocks that have formed in an arc environment (Pearce, 1983; Pearce and Peate, 1995), but can also be inherited from melting of upper continental crust or contamination by arc basement (Piercey, 2007); this will be further discussed below. There are subtle changes between the populations, however, most notably the enrichment in light REE (i.e., LREE: La, Ce, Pr, Nd, and Sm) decreases from the high Zr/Ti group through the calc-alkalic group through the transitional group, with the latter group having the flattest patterns (Fig. 3). These patterns reflect a combination of both fractionation (i.e., the transitional samples are less fractionated) coupled with upper crust contamination (i.e., the calc-alkalic and high Zr/Ti suite have greater crustal contamination). Support for a greater upper crust contribution in the high Zr/Ti and calc-alkalic suite is also support by their upper crust normalized REE profiles shown in Figure 4. Flat patterns are indicative of the rock being sourced from or to have interacted with upper crustal material; notably, both the calc-alkalic and transitional suites have relatively flat patterns, albeit with minor LREE depletion (Figs. 4a-b). In contrast, the transitional felsic rocks have significantly LREE-depleted upper crust normalized profiles, suggesting that they have a lesser upper crustal component (Fig. 4c).

The primitive mantle normalized plots for the mafic and intermediate rocks are shown in Figure 5 and like above have been shown for the complete dataset and those screened for alteration. In the suites that have strong alteration there is more scatter in the data with some groups having un-interpretable patterns (e.g., Fig. 5b, 5h), but for the most part they all exhibit broadly similar patterns with flat to weakly developed negative Nb anomalies weak to moderately elevated LREE enrichment relative to the HREE (Fig. 5). The altered calc-alkalic basalts have Zr/TiO₂ and Zr/Y features like calc-alkalic basalts but have patterns that exhibit positive Nb anomalies like enriched mid-ocean ridge basalts (E-MORB)(Fig. 5a). There is also a notable increase in the enrichment in LREE and size of the negative Nb anomaly as one proceeds towards more calc-alkalic rocks and going from basalt to andesite (Fig. 5). While the negative Nb anomaly suggests the potential for these rocks forming in an arc, the above behaviour is much more consistent with them forming within a non-arc environment (i.e., arc rift) and having negative Nb anomalies and LREE-enrichment due to crustal contamination. This is supported by the Ti-V systematics of the mafic to intermediate rocks, where most samples plot in the mid-ocean ridge basalt (MORB) to back-arc basin MORB fields (Fig. 6). Since Ti-V are insensitive to crustal contamination these data provide the best indicators of setting for mafic rocks and imply a rift-like setting for the MOR mafic-intermediate rocks.

Further support for the role of crustal contamination is presented in Figure 7. On this plot Nb/Th, a proxy for the negative Nb anomaly, is plotted against two indexes for crustal contamination, La/Sm, a measure of LREE-enrichment on primitive mantle normalized plots, and Zr/Y, a measure of tholeiitic through calc-alkalic affinities (Fig. 7). With increasing continental crustal contamination there is a coincident increase in Th, increase in the size of the negative Nb anomaly, a decrease in Nb/Th and the coincident increase in La/Sm and Zr/Y. Notably, the more felsic and more calc-alkalic the samples are the lower the Nb/Th and higher the La/Sm and Zr/Y ratios are (Fig. 7). Furthermore, the data array form a continuum from those with smaller negative Nb anomalies (high Nb/Th, low La/Sm and Zr/Y) and tholeiitic affinities towards samples with more negative Nb anomalies (low Nb/Th, high La/Sm and Zr/Y) and calc-alkalic affinities (Fig. 7). ***This suggests that the negative Nb anomalies present in these rocks are not due to formation within an arc environment, but due to continental crustal contamination - this implies that these rocks formed within a non-arc setting, likely an arc rift setting.***

Mobile Element Geochemistry

General Mobile Element Variations

General mobile element variations are shown on Figures 8-10. A significant population of samples have low Na₂O values and high to very high Spitz-Darling index values (Spitz and Darling, 1978) (Al₂O₃/Na₂O>10)(Fig. 8a)(diagram from Ruks et al., 2006). These low Na₂O values and accompanying high Al₂O₃ values are due to the destruction of feldspar and glasses where Na₂O to the hydrothermal fluid and Al₂O₃ is conserved during the clay mineral forming process:



Samples that have less than 2% Na₂O and/or Al₂O₃/Na₂O>10 are considered moderately altered, whereas those with <1% and Al₂O₃/Na₂O>50-100 are considered strongly altered. Notably, there is a significant population of samples that are moderate to strongly altered, especially the calc-alkalic felsic and andesitic rocks (Fig. 8a).

The highly altered samples with low Na₂O are also characterized by elevated chlorite-carbonate-pyrite index (CCPI)¹ (Large et al., 2001) and Hashimoto alteration index (AI)² (Ishikawa et al., 1976) values (Fig. 8b). These indexes (see below) are based on the gains of MgO, Fe₂O₃, and K₂O and the coincident losses of Na₂O and CaO during the alteration process, leading to elevated values for the most altered samples (Fig. 8b). It is notable that there is a significant population of samples that trends from the least altered box towards the pyrite-chlorite node and the dolomite-ankerite nodes, consistent with chlorite-pyrite and carbonate alteration, especially in the calc-alkalic suite rocks

¹ CCPI = 100*[(Fe₂O₃T+MgO)/(Fe₂O₃T+MgO+CaO+Na₂O)]

² AI = 100*[(K₂O+MgO)/(K₂O+MgO+CaO+Na₂O)]

(Fig. 8b). There is also a population that trends towards the albite node, indicative of more diagenetic or regional Na-metasomatism, likely due to fluid flow on the flanks of a hydrothermal system, or lower temperature hanging-wall alteration (e.g., Spooner and Fyfe, 1973; Galley, 1993)(Fig. 8b). The Na₂O-enriched samples are also present in said field on a Hughes (1973) diagram, but there is also a very strong population of calc-alkalic rocks, both andesites and rhyolites, that have strong potassic metasomatism (Fig. 8c). This distribution is also shown on ternary MgO-Al₂O₃-alkali plot of MacDonald et al. (1996) where most samples lie between the albite-muscovite, and chlorite nodes, reflecting varying amounts of these elements (Fig. 8d).

Mobile element ratio plots for the MOR samples are shown in Figure 9. Element ratios are used to remove the effects of closure (Stanley and Madeisky, 1994) and also to outline alteration- and mineralization-related trends in horizontal and vertical dimensions. The TiO₂/Zr-SiO₂/Zr diagram is utilized to elucidate quartz alteration and is based on the fact that TiO₂/Zr can be used to discriminate mafic through felsic rocks (e.g., Figs. 1a-b) and in unaltered rocks SiO₂/Zr will lead to positive arrays with TiO₂/Zr (Fig. 9a). In contrast, horizontal trends on this diagram reflect either excess SiO₂ (trends off the main array to the right), or SiO₂ losses (trends of the main array to the left) at a given TiO₂/Zr ratio; there are a population of samples that lies off the main array towards higher quartz content, specifically the calc-alkalic felsic rocks and to a lesser extent the transitional suite (Fig. 9a). The K₂O/Na₂O-SiO₂/Na₂O plot is based on the premise that during alteration Na₂O is lost to the hydrothermal fluid due to mineral destruction reactions (see above) whereas K₂O and SiO₂ are gained in sericite and quartz, respectively (Fig. 9b). On this diagram, more quartz and sericite altered samples will have higher ratios and tend towards the top of the data array, whereas samples that have just quartz alteration will form horizontal trends away from the data array, both of which are observable in the samples from the MOR prospect; the calc-alkalic suite of felsic and andesitic rocks form a distinctive group at the top of the data array that indicate they have the strongest quartz-sericite alteration (Fig. 9b). A similar premise can be made for Figures 9c (Fe-Mg = chlorite + sulfide), 9e (Ca = carbonate), and 9f (Cu-Zn = sulfides), where the most altered samples have the highest ratios relative to Na₂O. Clearly, in all these plots there is strong evidence for sericite, chlorite, and sulfide alteration, with lesser carbonate and quartz alteration (Fig. 9).

Base metal and volatile element plots are shown in Figure 10. There are numerous samples that contain highly anomalous base metal content (i.e., Cu, Zn, or Pb > 1000 ppm), many of which are ore grade and at the upper detection limit of the ICP-MS and ICP-ES (i.e., 10000ppm). It is also notable that the more mineralized samples have higher Hg content, similar to that found in the Duck Pond VMS deposit in Newfoundland (Collins, 1989). These high values are also accompanied by high Hg/Na₂O ratios and anomalous Ba/Sr ratios (i.e., >10), features associated with VMS deposits in similar geological settings (e.g., Collins, 1989; Piercey, 2009).

Downhole Profiles

Key mobile major and trace elements and associated alteration indexes and ratios are shown in Figures 11-15. These plots are done to: 1) see spatial variations in alteration and relationships between different element groups; 2) to see the size of the profiles and to see what are the best drill holes from an alteration perspective; and 3) utilize the latter

to rank different drill holes and potential areas to target further work. The drill holes include those from the Discovery Zone (MOR-07-02, MOR-07-03, MOR-08-07) and the SD Zone (MOR-08-05, MOR-08-12). Outlined below are key observations regarding the various drill holes.

Hole MOR-07-02 (Discovery Zone, West of Main Discovery)(Fig. 11)

- This hole has a main anomalous alteration and mineralization zone from ~80-111m.
- This zone is characterized by sulfide-related element enrichment, namely Fe₂O₃, S, LOI, Zn, Cu, Pb, Tl, and Hg.
- This area is also characterized by spiky, but coincident lows in SiO₂ and Na₂O.
- There is also low, but erratic behaviour of K₂O.
- The Al₂O₃/Na₂O ratios, Hashimoto index, CCPI, and sericite index, while spiky, are all elevated here as well.
- The area has high Hg/Na₂O, Zn/Na₂O, Cu/Na₂O, and Ba/Sr enrichments.
- There is a second zone of anomalous behaviour of elements ~42-47m that is characterized by anomalous SiO₂, low Na₂O, K₂O, MnO, and enrichments in SiO₂/Zr Ba/Sr, Hashimoto index, CCPI, and sericite index – these all likely represent quartz-carbonate vein material(?) and associated alteration.

Hole MOR-07-03 (Discovery Zone, Main Discovery)(Fig. 12)

- Like hole MOR-07-02 there is a broad zone of anomalous alteration and mineralization ~116-152m.
- This zone is characterized by Fe₂O₃-S-LOI-Zn-Cu-Pb-Tl-Hg enrichment and depletions in SiO₂ and Na₂O and to a lesser extent CaO and K₂O.
- Notably, in this zone, below the higher base metal values there is a coincident loss in Na₂O coupled with enrichment in K₂O, likely related to sericite alteration.
- This anomalous zone is also characterized by anomalous Spitz-Darling index, Hashimoto index, CCPI, sericite index, Hg/Na₂O, Zn/Na₂O, and Cu/Na₂O, and Ba/Sr values.
- At 46m there is another zone of SiO₂ enrichment coupled with low Fe₂O₃, MgO, MnO, and anomalous Hashimoto, CCPI, and sericite index values. This likely is the same anomaly found in hole MOR-07-03 and likely represents quartz-(carbonate) veining(?).

Hole MOR-08-06 (SD Zone)(Fig. 13)

- This hole has a few anomalous zones, but not to the same extent as MOR-07-02 and MOR-07-03.
- At ~23-51m and 125-149m are erratic and spiky anomalous zones characterized by spiky Fe₂O₃-Na₂O-MnO-LOI, weak base metal and S enrichment, and anomalous Spitz-Darling, Hashimoto, and CCPI values.
- These zones have lower values in sericite index and SiO₂ like in the Discovery Zone.
- There is no accompanying Tl, Hg, or Ba/Sr anomalies.
- These anomalies have to be ranked as secondary in comparison to those from the Discovery Zone.

Hole MOR-08-07 (SD Zone)(Fig. 14)

- This hole has a similar profile to others found in the Discovery Zone, albeit with a more spiky nature. The anomalous zone is present at ~120-135m.
- Like previous holes it is characterized by spiky Fe₂O₃-S-LOI-Zn-Cu-Pb-Tl-Hg enrichment and depletions in SiO₂ and Na₂O and to a lesser extent CaO and K₂O.
- The zone also contains similar anomalous Spitz-Darling index values, and high Hashimoto index, CCPI, sericite index, Hg/Na₂O, Zn/Na₂O, and Cu/Na₂O, and Ba/Sr values.
- Notably, however, these anomalies are less continuous but more spiky in this hole.

Hole MOR-08-12 (SD Zone)(Fig. 15)

- This hole has a very spiky profile with a few anomalous zones, notably there is a zone at 92-98m and at 205-211m.
- These zones are characterized by Fe₂O₃-S-LOI, minor base and volatile element enrichment, and anomalous alteration index values, coupled with Na₂O and SiO₂ depletions.
- There are also other zones with anomalous CaO enrichment (carbonate veins at ~83m?) and quartz alteration (~70m with high SiO₂/Zr).
- While having VMS-related alteration the patterns are spiky and not broad and extensive like in the Discovery Zone.

Ranking Samples: Calculating a VMS Score for Samples from the MOR Prospect

In order to evaluate the prospectivity of samples from the MOR prospect and to integrate various base metal, volatile metal, mobile element and alteration index indicators of prospectivity, a single “VMS score” for each sample has been created. This score takes the various criteria, assigns them a value, and sums the value to see which samples have the highest scores. In creating the score, the elements and element ratios that best discriminate alteration and mineralization are chosen and thresholds are selected based on the present dataset and experience in other VMS systems globally. By integrating variables the samples with the best set of criteria (i.e., both alteration and mineralization) will have the highest scores, whereas samples with only single element or index anomalies will be given lower values. The following variables and associated scores were used (all calculations are provided in the [attached spreadsheet](#)):

- **Fe₂O₃** – if <10%, score 0; 10-20%, score 1; >20%, score 2;
- **Na₂O** – if >2%, score 0; 1-2%, score 2; <1%, score 2;
- **S** - <5%, score 0; 5-10%, score 1; >10%, score 2;
- **LOI** - <5%, score 0; 5-10%, score 1; >10%, score 2;
- **Ba** - <500ppm, score 0; 500-1000 ppm, score 1; >1000 ppm, score 2;
- **Cu** (by ICP-ES) - <1000 ppm, score 0; 1000-2500 ppm, score 1; >2500 ppm, score 2;
- **Zn** (by ICP-ES) - <1000 ppm, score 0; 1000-2500 ppm, score 1; >2500 ppm, score 2;
- **Pb** (by ICP-ES) - <1000 ppm, score 0; 1000-2500 ppm, score 1; >2500 ppm, score 2;

- **Tl** - <1 ppm, score 0; >1 ppm, score 2;
- **Hg** - <1 ppm, score 0; 1-2.5 ppm, score 1; >2.5 ppm, score 2;
- **Al₂O₃/Na₂O** - <10, score 0; 10-100, score 1; >100, score 2;
- **Ba/Sr** - <10, score 0; 10-25, score 1; >25, score 2.

The results of the calculations are provided in the [attached spreadsheet](#) and samples were given the following assignments based on their VMS score:

- **Highly Prospective** - VMS score >10.
- **Moderately Prospective** - VMS score = 5-10.
- **Prospective** - VMS Score 2-5.
- **Anomalous** - VMS Score = 1.
- **Lesser Prospective** = VMS Score <1.

Outlined in Table 1 are the top ranked samples, i.e., those with highly prospective or moderately prospective signatures. Notable, all of these samples, with a few exceptions, occur within the main Discovery Zone.

Table 1. VMS scores for samples from the MOR prospect.

Sample #	Drillhole	Depth	VMS_Score	Ranking	Valuation
G285505	MOR-07-02	88.7	23	1	highly prospective
G285529	MOR-07-03	135.5	22	2	highly prospective
G285502	MOR-07-02	81.64	21	3	highly prospective
G285503	MOR-07-02	84.6	20	4	highly prospective
G285504	MOR-07-02	86.63	20	5	highly prospective
G285510	MOR-07-02	103.35	20	6	highly prospective
G285531	MOR-07-03	143.95	20	7	highly prospective
G285557	MOR-08-07	127.3	19	8	highly prospective
G628508	MOR-07-02	97.45	18	9	highly prospective
G285559	MOR-08-07	130	17	10	highly prospective
G285584	MOR-08-07	136.42	17	11	highly prospective
G285511	MOR-07-02	106.4	16	12	highly prospective
G285530	MOR-07-03	138	14	13	highly prospective
G285528	MOR-07-03	128.5	11	14	highly prospective
G285535	MOR-07-03	191.1	11	15	highly prospective
G285624			10	16	moderately prospective
G285532	MOR-07-03	152	9	17	moderately prospective
G285582	MOR-08-07	119.6	9	18	moderately prospective
G285630			9	19	moderately prospective
G285250	MOR-07-02	74.9	8	20	moderately prospective
G285543	MOR-08-12	95.5	8	21	moderately prospective
G285547	MOR-08-12	207.5	7	22	moderately prospective
G285621			7	23	moderately prospective
G285620			7	24	moderately prospective
G285506	MOR-07-02	90.5	6	25	moderately prospective
G285541	MOR-07-03	230.5	6	26	moderately prospective
G285556	MOR-08-07	126	6	27	moderately prospective
G285588	MOR-08-07	171.4	6	28	moderately prospective

The relationship of VMS score to various alteration and mineralization-related elements is shown in Figure 16 and downhole profile comparisons for the Discovery Zone and SD Zone are shown in Figures 17 and 18. There is a good correlation between VMS score and base metal enrichment (Figs. 16a,b), LOI (Fig. 16c), Na₂O depletion (Fig. 16d), Fe₂O₃+MgO (Fig. 16e), and S (Fig. 16f). These all illustrate that the score is successful in delineating both mineralization (e.g., Zn-Cu-S-LOI) and alteration (e.g., Na₂O depletion, Fe-Mg-enrichment, LOI – hydration/carbonation).

Tectonic Setting and the MOR Petrochemical Assemblage: Comparisons to other VMS Hosting Successions in the Cordillera

The immobile element systematics of the MOR host rocks provide significant insight into the tectonic setting for mineralization and helps in facilitating comparisons to other VMS districts in the Yukon-Tanana terrane and elsewhere globally. The rocks of the MOR prospect are unlike the Finlayson Lake district in that they form continuous spectra from basalt through felsic, and have a range of compositions from tholeiitic to calc-alkalic, and there is a notable absence of felsic rocks enriched in HFSE and REE, features that are very distinctive in Finlayson Lake (e.g., Piercey et al., 2001; Piercey et al., 2008). Despite this, the chemostratigraphy and petrology of rocks from the MOR prospect do have features that indicate a potentially prospective environment for mineralization. In particular, the MOR area shows evidence for formation within a rift environment with E-MORB-type rocks that have been contaminated by continental crust (Fig. 7). It is likely that these mafic rocks upwelled beneath a rift, likely due to arc rifting along the western Laurentian cratonic margin (Nelson et al., 2006; Roots et al., 2006), melting continental crust forming the rhyolitic rocks, and mixed with crust to form andesitic rocks. The suggested rift setting is also important as rift environments are particularly conducive to VMS deposit formation largely due to the fact that rifts are characterized by extensional geodynamic activity leading to extensional faults that provide fluid pathways and permeability required to focus hydrothermal fluids, and secondly there is an upwelling of mantle heat beneath the rift that raises the local geothermal gradient and helps stimulate hydrothermal fluid flow (e.g., Sillitoe, 1982; Swinden, 1991; Piercey, 2007, 2009).

The association of these E-MORB, contaminated E-MORB, and calc-alkalic felsic rocks is not an uncommon “petrochemical assemblage” in the VMS environment (Piercey, 2007, 2009). Petrochemical assemblages are chemostratigraphic assemblages of mafic and felsic rocks that indicate a specific geodynamic environment and are a predictive tool to identify environments with the potential to host VMS mineralization (Piercey, 2009)(Fig. 19). Notably, the rock associations in the MOR area are broadly similar to other bimodal felsic to felsic-siliciclastic VMS settings (Fig. 19). This does not imply that there will be significant mineralization like these camps or even a direct correlation to the deposits and environments present in Figure 19, but it does suggest that the area has a good geodynamic environment and coupled with the known intersections of VMS mineralization and VMS-related alteration bolsters the assertion that the MOR area has potential for VMS mineralization.

Recommendations and Comments

It is clear from previous drilling results, geological work, and the results presented herein that the MOR prospect does have potential to host VMS mineralization. It is recommended that further exploration be done in the area as the prospect. A number of suggestions and recommendations are provided below:

1. Most VMS mineralization at the MOR prospect is associated with calc-alkalic to transitional affinity felsic to andesitic rocks with evidence of strong alteration and mineralization (e.g., low Na₂O; anomalous base- and volatile metal contents; high Fe₂O₃+MgO, Spitz-Darling index, CCPI, Hashimoto index, and Ba/Sr index values). Rocks with similar attributes should be concentrated upon during regional exploration.
2. The VMS score could be utilized in all new data sets, and regional datasets, to screen areas with the best potential. The VMS score could also be used to discriminate potential new areas to stake. Utilization of existing government lithochemical data (e.g., like the data from the Ancient Pacific Margin NATMAP project) and testing the VMS score in such datasets may provide fruitful in exploring new areas and providing targets outside of the MOR area to potentially stake.
3. In comparing the Discovery Zone and SD Zone, the Discovery Zone has much better lithochemical signatures and indicators of mineralization and alteration, including broad alteration and mineralization haloes and highly anomalous VMS score values. The SD Zone, while having anomalous character, does not appear as prospective as the Discovery Zone. If budgets are limited, it is suggested that further work be concentrated near the Discovery Zone.
4. Within the Discovery Zone it does appear that alteration and mineralization signatures are strongest in the main part of the Discovery Zone (e.g., hole MOR-07-03) and west (e.g., hole MOR-07-02) and is less developed, but still developed, in the eastern portion of the prospect (e.g., hole MOR-08-07). It is highly probable that these signatures are a function of limited sampling from a spatial perspective, but if real, it suggests that the main area and west of the Discovery Zone are the best areas to concentrate further exploration. It is also recommended that down-dip signatures be tested in some holes to see if such signatures increase towards the north and down-dip or not.

Summary

The MOR prospect represents a relatively new VMS discovery within the Yukon-Tanana terrane near Teslin, Yukon. The prospect is associated with basaltic, andesitic, and rhyolitic rocks that have immobile element signatures they range in composition from tholeiitic through transitional to calc-alkalic. The felsic rocks are predominantly transitional to calc-alkalic, FII affinities, and have evidence for interaction with upper continental crust. Mafic to intermediate rocks are dominated by transitional to tholeiitic rocks with lesser calc-alkalic rocks and have Ti-V systematics indicative of formation within a rift environment. All the immobile element data indicate that the various suites of rocks can be related by variable amounts of mixing between more primitive, basaltic end members and continental crust, with the more felsic end-members being almost entirely derived from continental crust, whereas the basaltic rocks are predominantly

derived from mantle with minor upper crust contamination. The chemostratigraphic assemblages present in the MOR prospect are indicative of formation within a rift to arc-rift built proximal to or upon continental crust, a setting similar to other VMS belts in the Cordillera (e.g., Finlayson Lake, Eskay Creek, Tulsequah). While not directly similar to the Finlayson Lake District, the MOR prospect has a “petrochemical assemblage” that is broadly similar to other VMS belts hosted by felsic rocks and formed proximal to continental crust (e.g., bimodal felsic to felsic siliciclastic VMS environments).

The mobile element systematics of the MOR prospect host rocks indicate that a significant proportion of samples have evidence for VMS-like alteration, including chlorite-sericite-sulfide with lesser quartz and carbonate alteration, as indicated by the strong alkali (e.g, Na₂O) depletion, Fe₂O₃-MgO-base metal-volatile element enrichment, and elevated alteration index values in many samples. Samples have been ranked using a single “VMS score” that integrates various indicators of VMS-related alteration and mineralization. This VMS score is maximized in samples with numerous indicators of alteration and mineralization, whereas it minimizes values for those samples with lesser indicators of mineralization. The vast majority of samples with high VMS score values are from surface and drill core in the main Discovery Zone of the MOR prospect with much lesser samples from the SD Zone.

It is recommended that further work be concentrated proximal to the Discovery Zone if budgets are limited. If exploration is to be expanded areas with calc-alkalic felsic to andesitic rocks with evidence of alteration and mineralization, and high VMS score values should be concentrated upon. In screening new areas it may be possible to utilize existing government databases (e.g., NATMAP lithogeochemical databases) to screen new areas for VMS potential.

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Important Notice

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in Stephen J. Piercey Geological Consulting's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. The results and opinions expressed in this report are based on Stephen J. Piercey Geological Consulting's interpretation of technical data cited in this report. The author has not visited the property and thus any assertions are based entirely on lithochemical data and data from publically available information on the MOR prospect. While Stephen J. Piercey Geological Consulting has carefully reviewed all of the information provided by Tarsis Resources Ltd., and believes the information to be reliable, Stephen J. Piercey Geological Consulting has not conducted an in-depth independent investigation to verify its accuracy and completeness.

This report is intended for Tarsis Resources Ltd. and any third party use is at that party's sole risk.

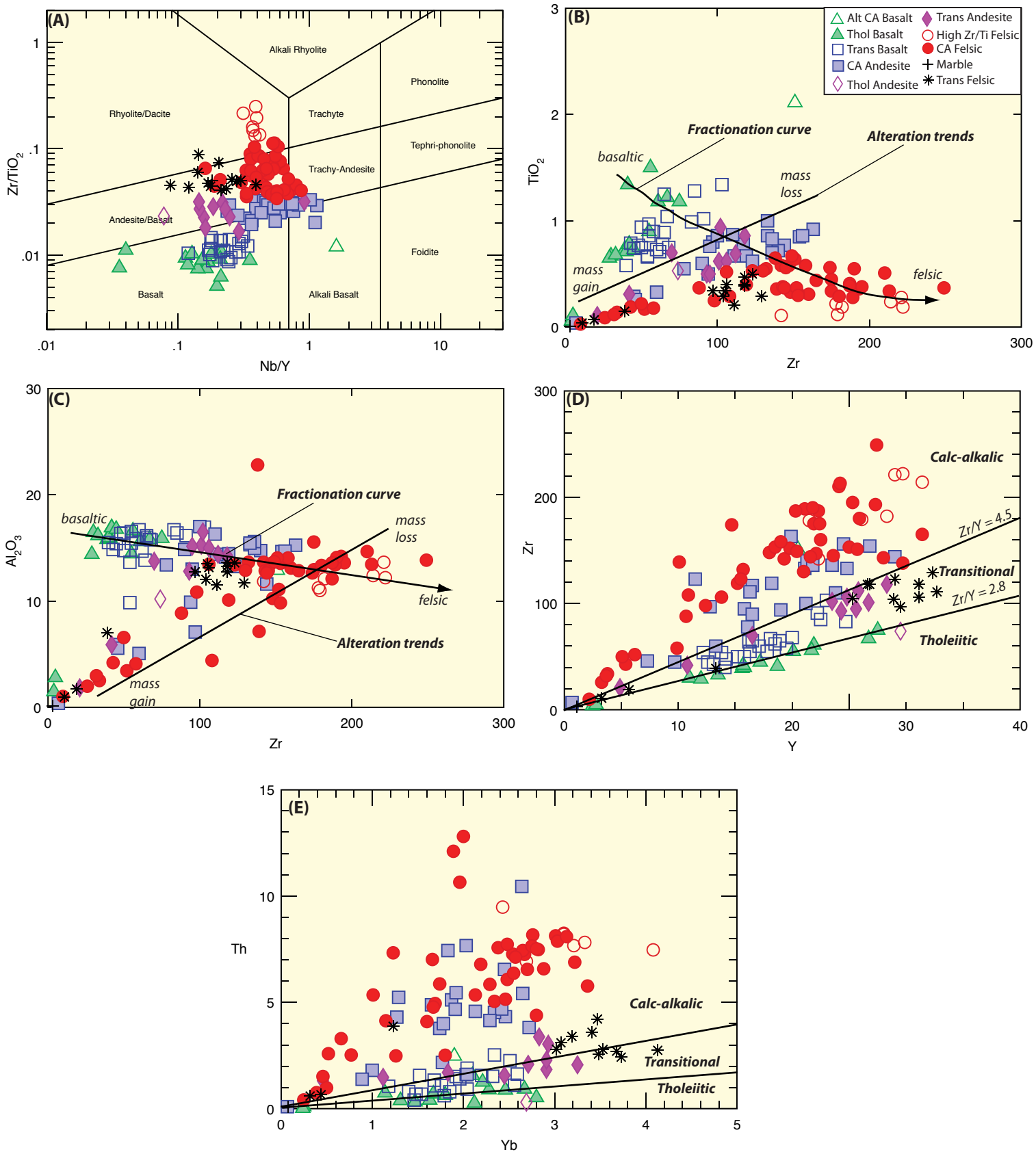


Figure 1. Immobile trace element plots for samples from the MOR prospect. A) Zr/TiO₂-Nb/Y plot of Winchester and Floyd (1977) (modified by Pearce, 1996). B) TiO₂-Zr and C) Al₂O₃-Zr fractionation plots. D) Zr-Y and E) Th-Yb classification plots of Ross and Bedard (2009) (modified from Barrett and MacLean, 1999).

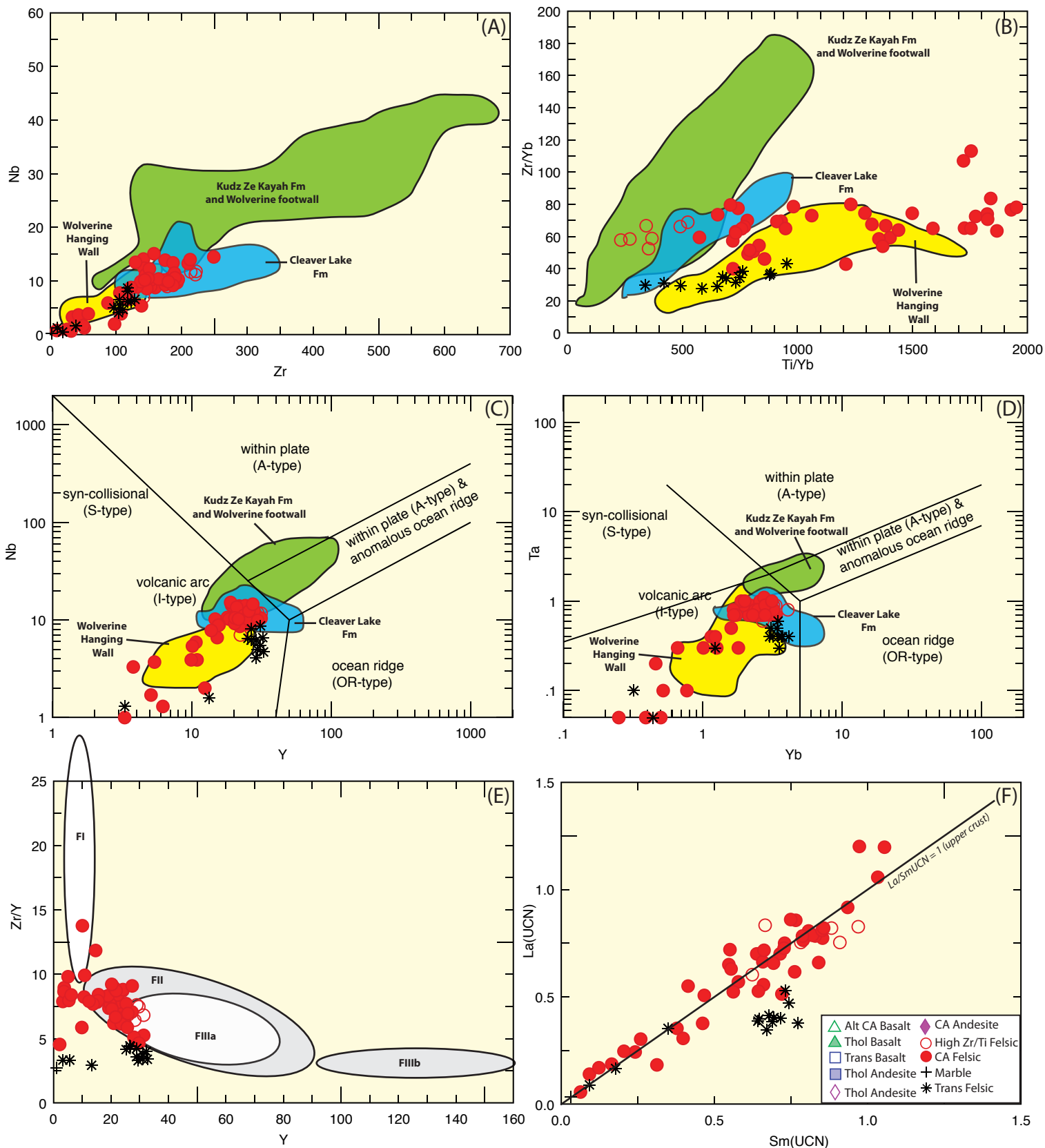


Figure 2. Immobility trace element plots for felsic samples from the Mor prospect. A) Zr-Nb plot. B) Zr/Yb-Ti/Yb (after Piercy et al., 2001). C) Nb-Y and D) Ta-Yb discrimination diagrams (from Pearce et al., 1984). E) Zr/Y-Y VMS rhyolite discrimination diagram (from Lesher et al., 1986 and Hart et al., 2004). F) Upper crust normalized (UCN) La-Sm plot (upper crust values from McLennan, 2001). Shown for comparison in A-D are the felsic rocks from the Finlayson Lake VMS district (from Piercy et al., 2001).

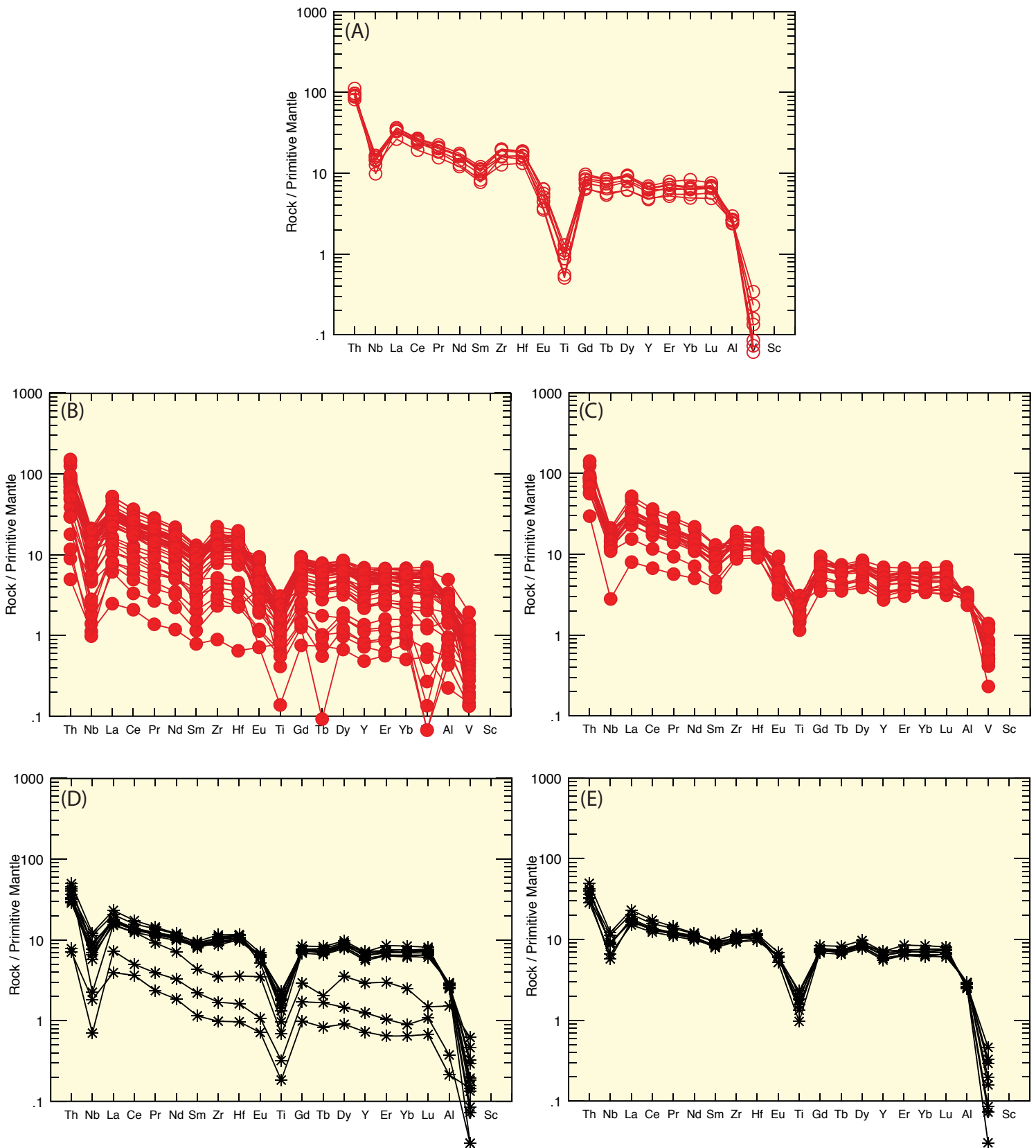


Figure 3. Primitive mantle normalized plots (values from Sun and McDonough, 1989) for felsic rocks from the MOR prospect. A) High Zr/Ti felsic rocks. B) Calc-alkalic felsic rocks (entire dataset). C) Calc-alkalic felsic rocks screened to remove altered samples. D) Transitional felsic rocks (entire dataset). E) Transitional felsic rocks screened to remove altered samples. Notably, some highly altered samples appear to have had mobility of so-called immobile elements.

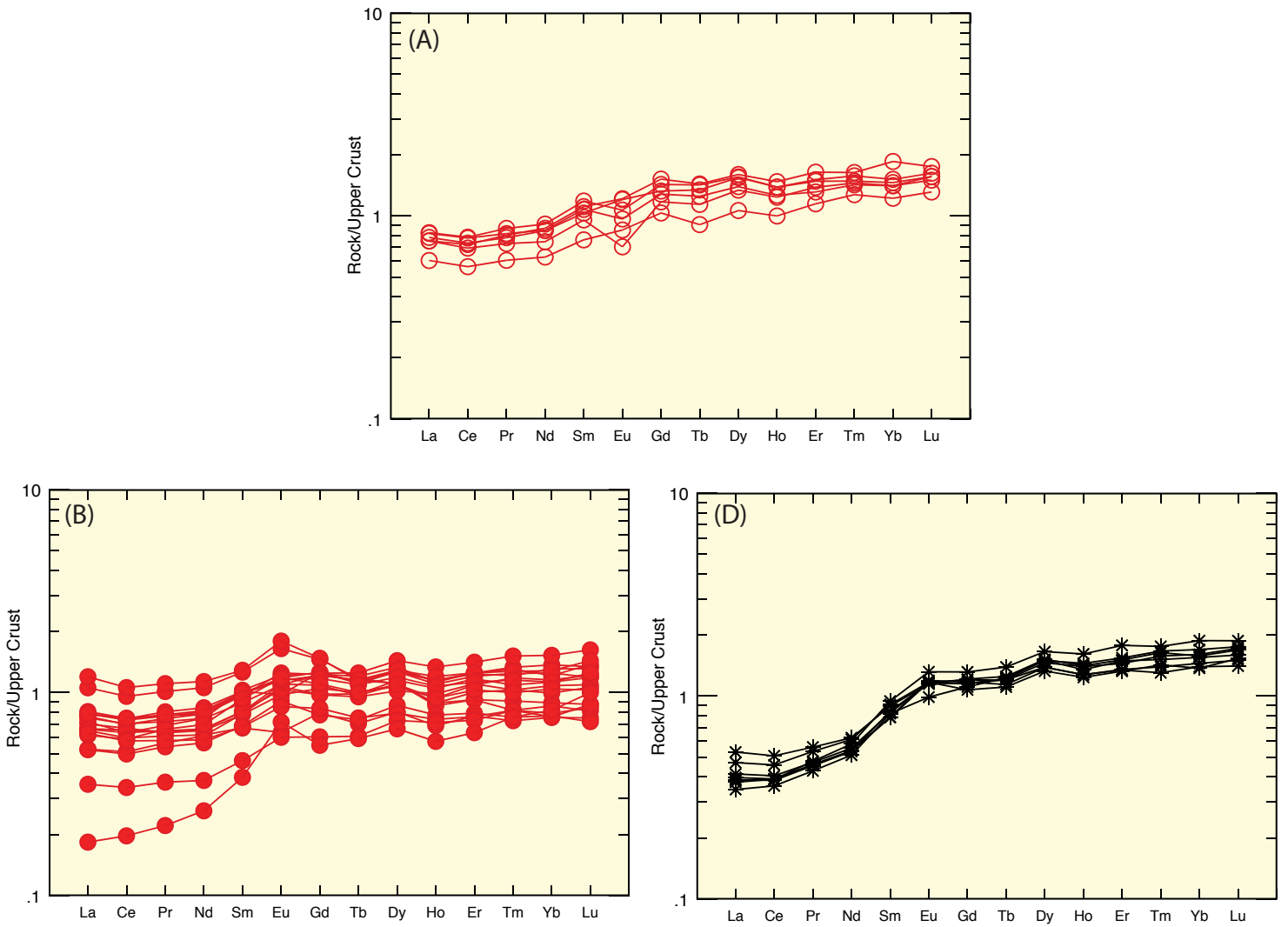


Figure 4. Upper continental crust normalized plots (values from McLennan, 2001) for least altered felsic rocks from the MOR prospect. A) High Zr/Ti felsic rocks. B) Calc-alkalic felsic rocks C) Transitional felsic rocks.

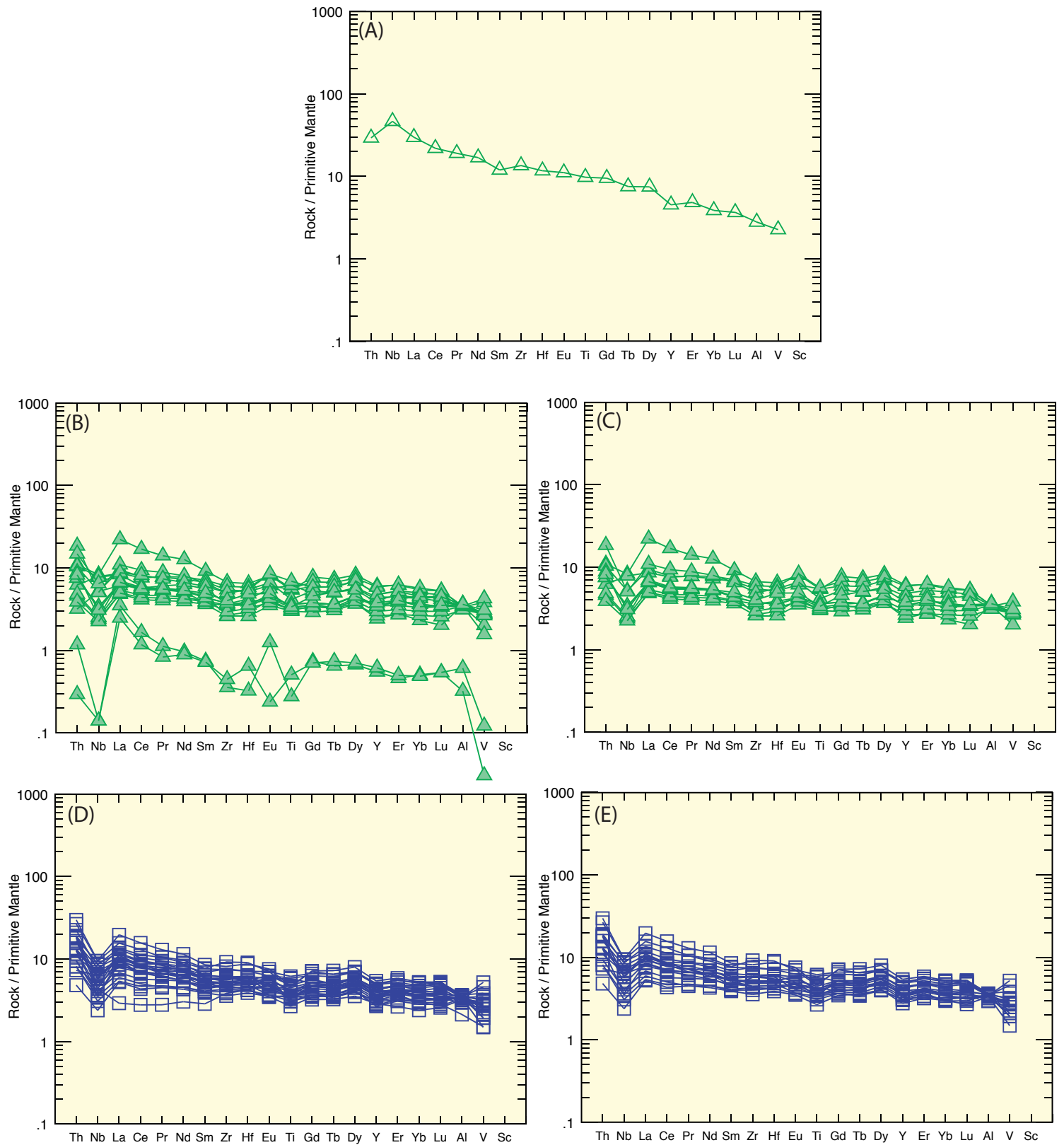


Figure 5. Primitive mantle normalized plots for mafic to intermediate rocks of the MOR prospect. A) altered calc-alkalic(?) basalt (this sample actually has a signature similar to modern enriched mid-ocean ridge basalts (E-MORB). B) Tholeiitic basalts (entire suite) and C) tholeiitic basalts without highly altered samples. D) Transitional basalts (entire suite) and E) transitional basalts without highly altered samples.

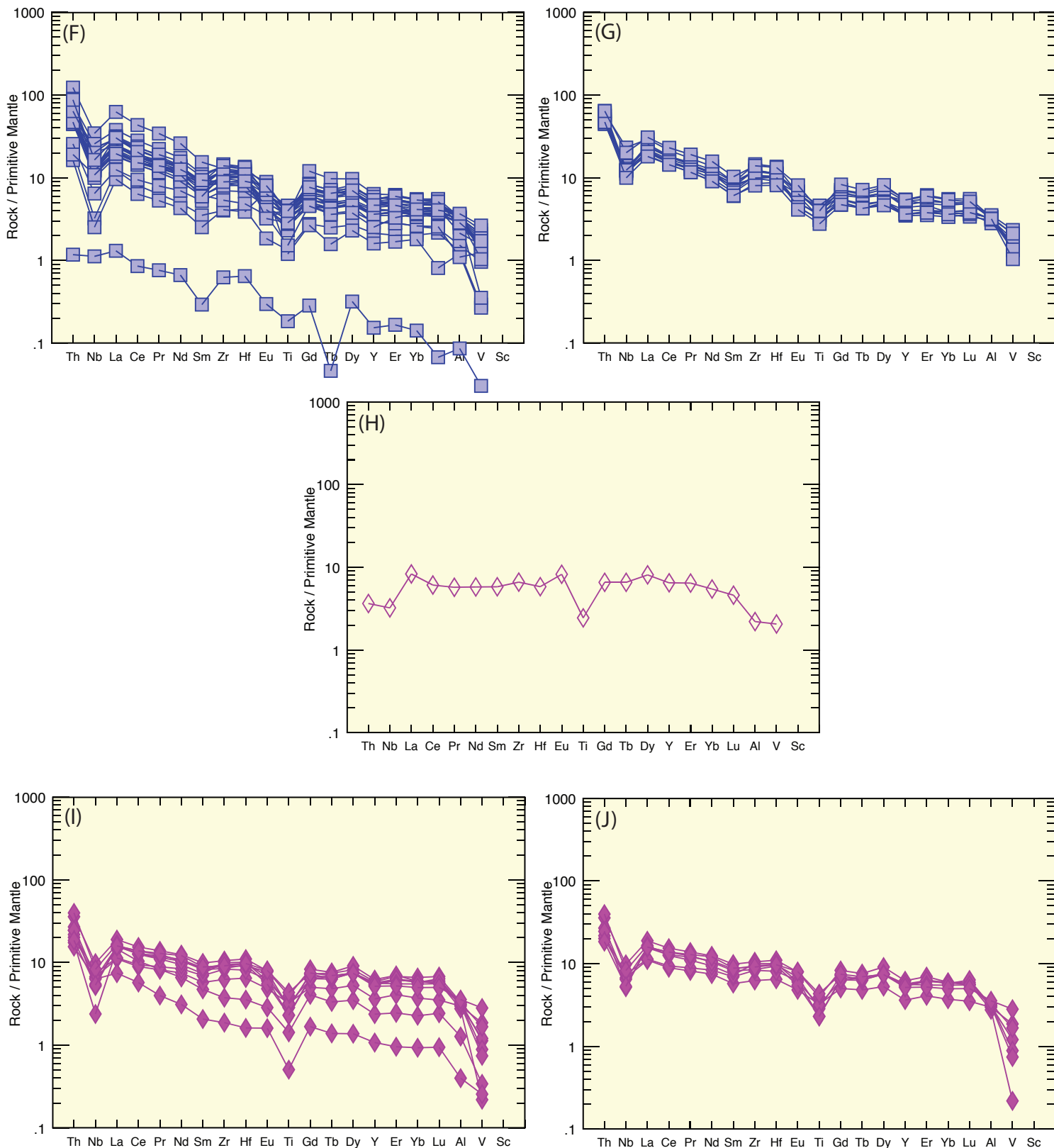


Figure 5 (continued). Primitive mantle normalized plots for mafic to intermediate rocks of the MOR prospect. F) Tholeiitic andesites (entire suite) and G) tholeiitic andesites without highly altered samples. H) Tholeiitic andesite. I) Calc-alkalic andesites (entire suite) and J) calc-alkalic andesites without highly altered samples.

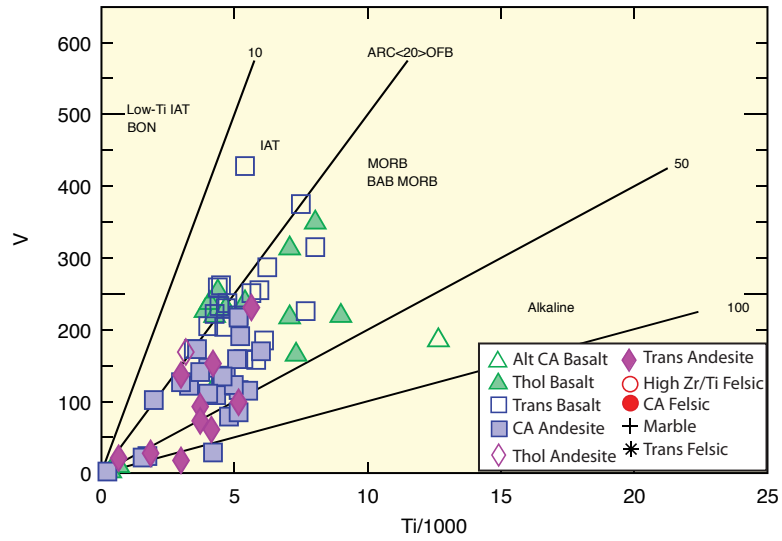


Figure 6. Ti-V discrimination diagram (from Shervais, 1982) for mafic-intermediate rocks from the MOR prospect. Notably, most mafic rocks lie within the field for mid-ocean ridge basalt (MORB) to back-arc basin MORB, suggesting a non-arc origin.

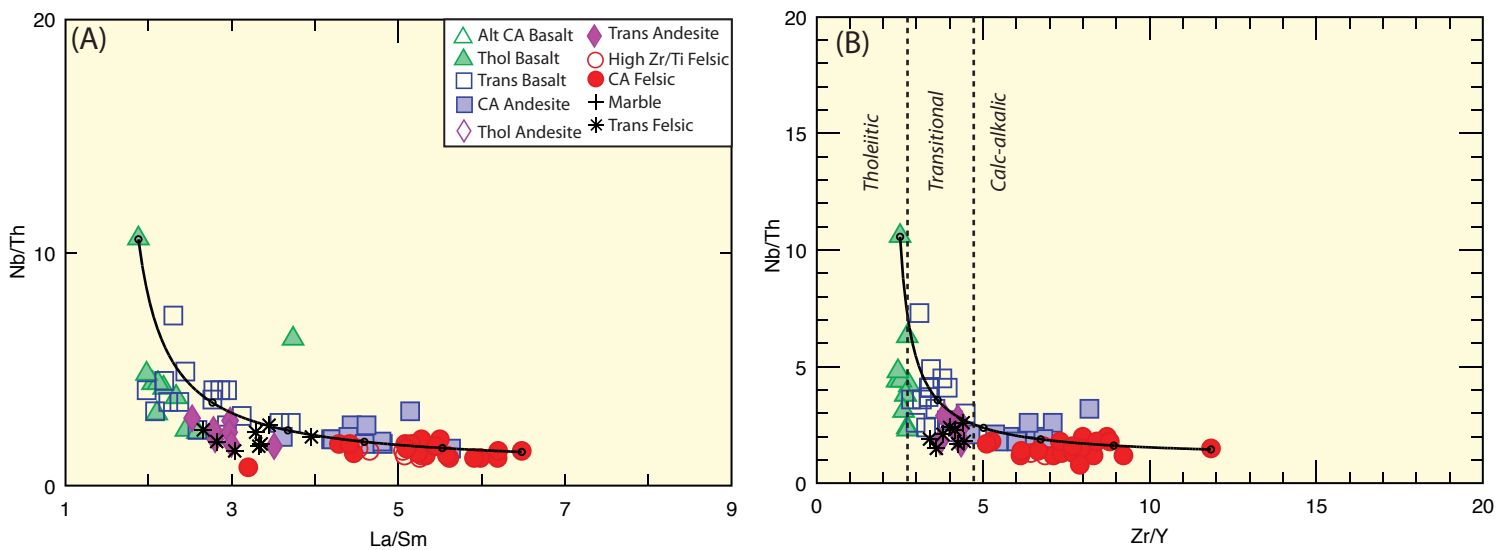


Figure 7. Trace element mixing diagrams for least altered samples from the MOR prospect. Nb/Th ratios are utilized to measure the size of the negative Nb anomaly (i.e., lower values = larger anomaly), whereas La/Sm and Zr/Y are measures of LREE-enrichment and steepness of the trace element profiles. As well, these latter ratios are good measures of the degree of potential continental crustal involvement. Notably, there are hyperbolic arrays in these diagrams in which the samples lie on mixing lines between mafic rocks and the felsic rocks. This suggests that these rocks represent mixtures of non-arc mantle and continental crust and most Nb anomalies are likely due to contamination by crust rather than true “arc” signatures. It suggests that these rocks formed within a rifted arc or back-arc setting likely partially floored by continental crust.

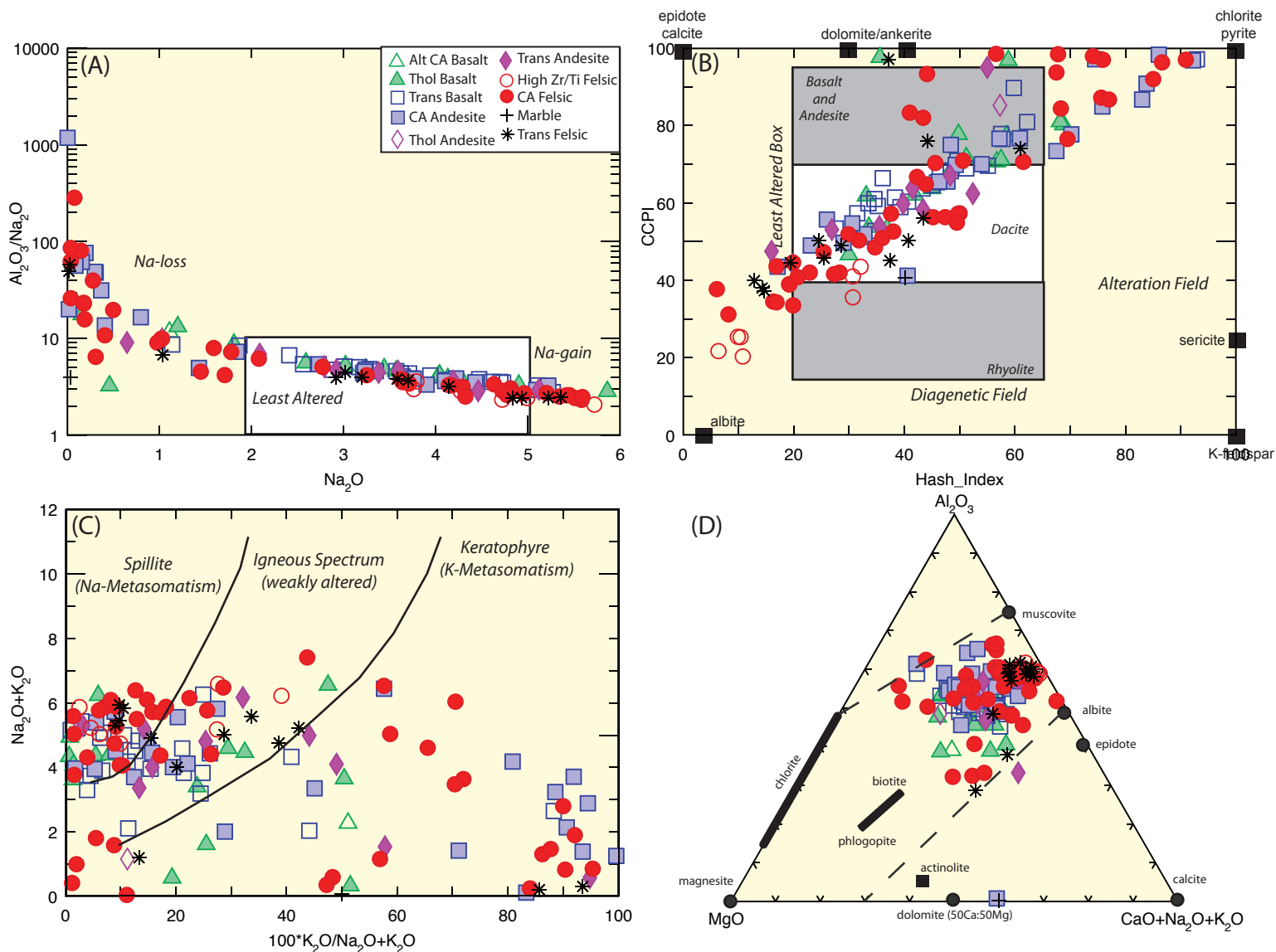


Figure 8. Major element plots for mobile elements in rocks from the MOR prospect. A) Spitz-Darling index (Al_2O_3/Na_2O) against Na_2O content (diagram from Ruks et al., 2006). B) Alteration box plot (Large et al., 2001) with the Hashimoto alteration Index against the chlorite-carbonate-pyrite index (CCPI). C) Hughes (1973) plot. D) MgO- Al_2O_3 -alkali plot of MacDonal et al. (1996). These results clearly illustrate that there is a significant population of samples at the MOR prospect that exhibit VMS-like chlorite-pyrite-sericite alteration.

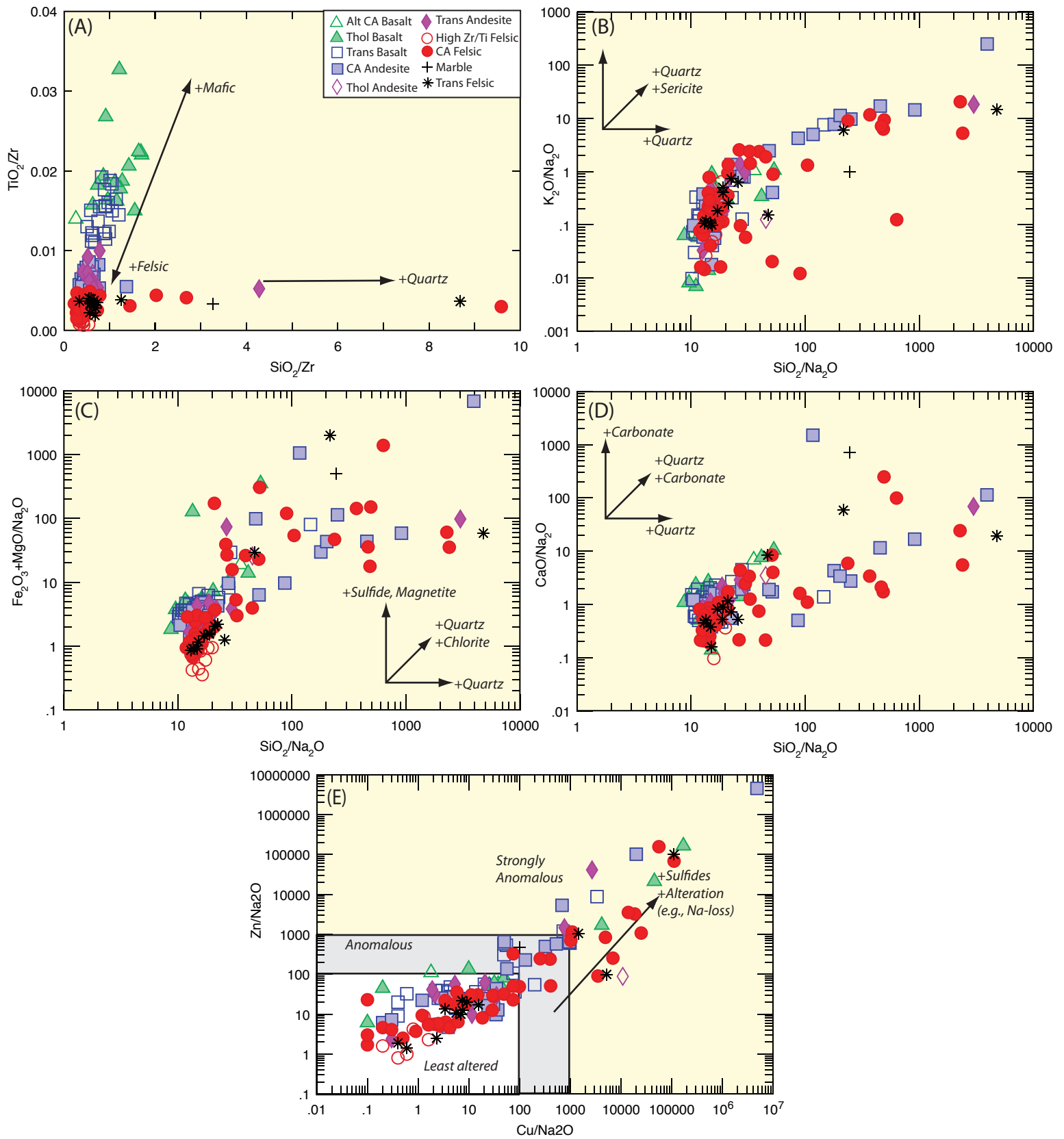


Figure 9. Mobile element ratio plots for samples from the MOR prospect. A) TiO_2/Zr - SiO_2/Zr diagram for discriminating quartz alteration. B) K_2O/Na_2O - SiO_2/Na_2O . C) Fe_2O_3+MgO/Na_2O - SiO_2/Na_2O . D) CaO/Na_2O - SiO_2/Na_2O . and E) Zn/Na_2O - Cu/Na_2O . These diagrams are useful at identifying various alteration types and mineralization within volcanic rocks. .

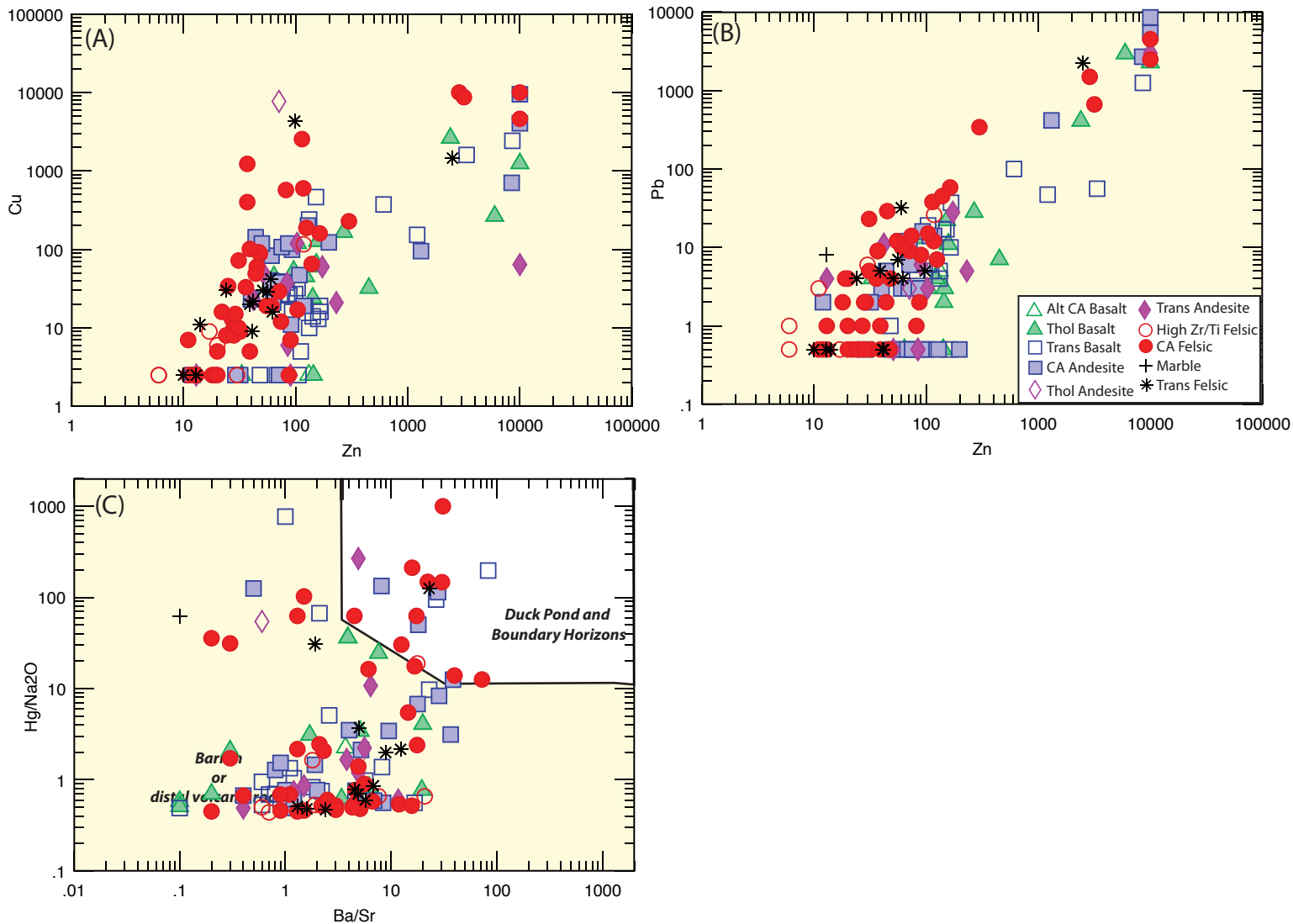


Figure 10. Base metal and volatile element plots. A) Cu-Zn. B) Pb-Zn. C) Duck Pond Index plot (from Collins, 1989) illustrating the volatile enrichment in some rocks from the MOR prospect (i.e., high Hg and Ba/Sr).

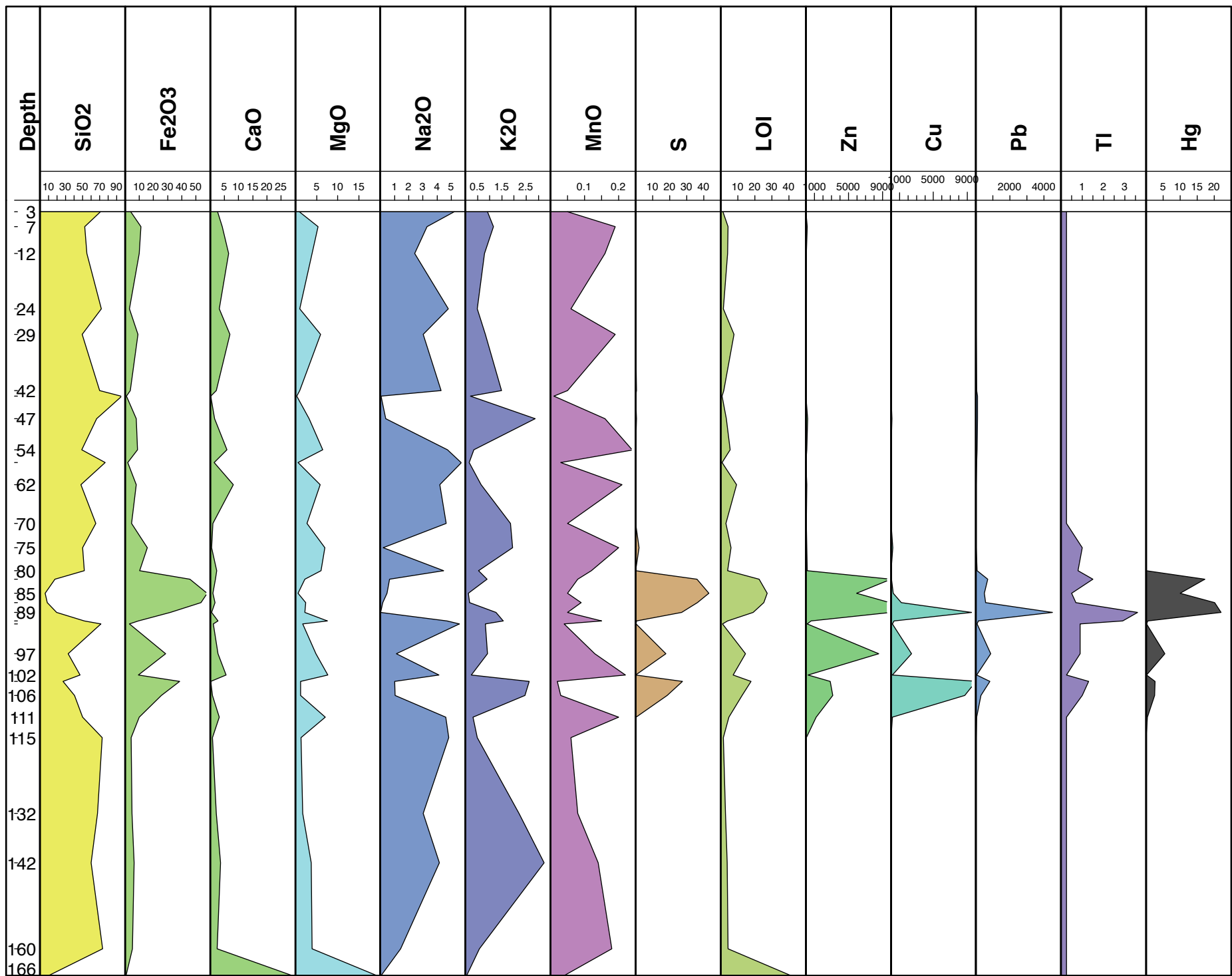


Figure 11. Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-07-02

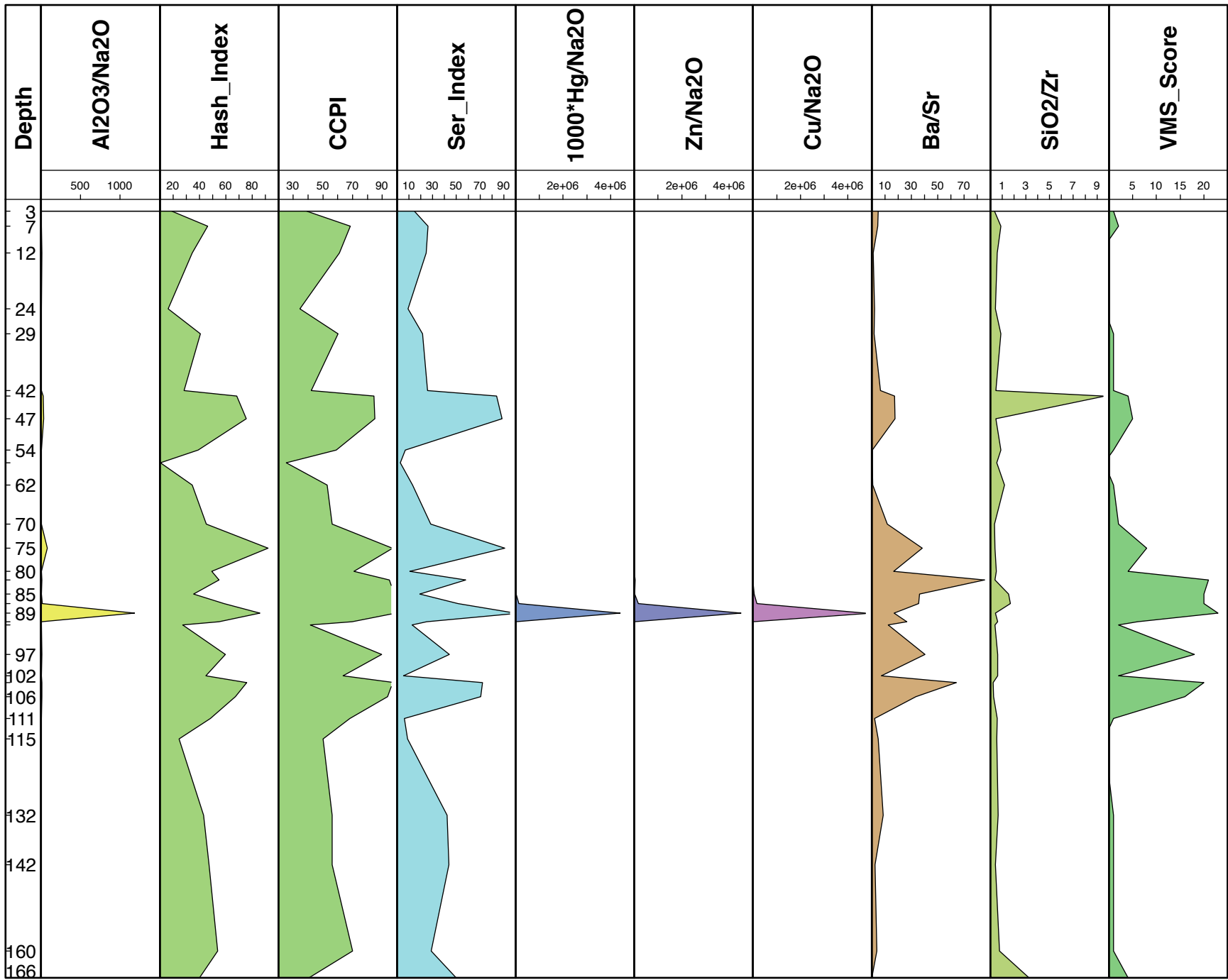


Figure 11 (continued). Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-07-02

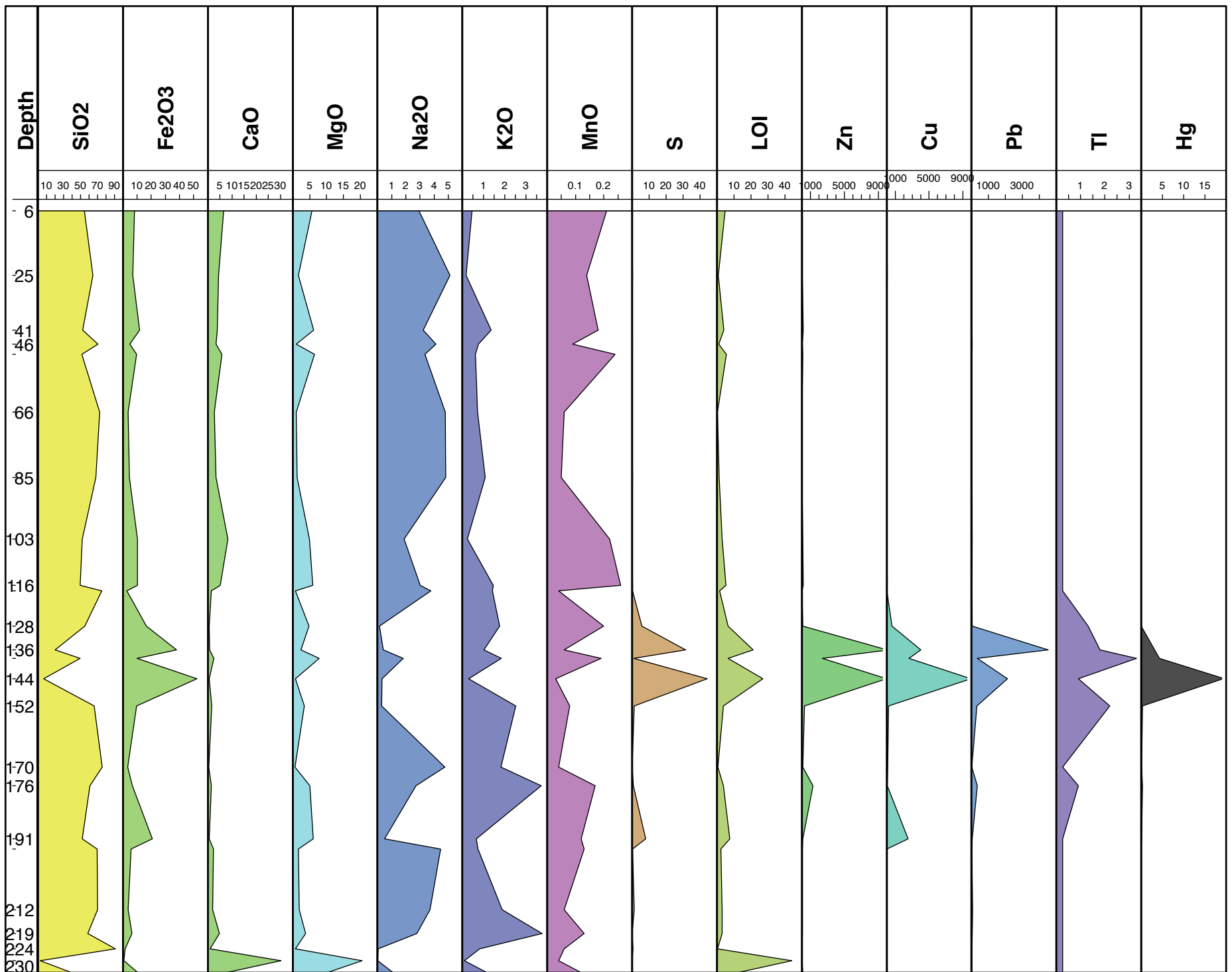


Figure 12. Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-07-03.

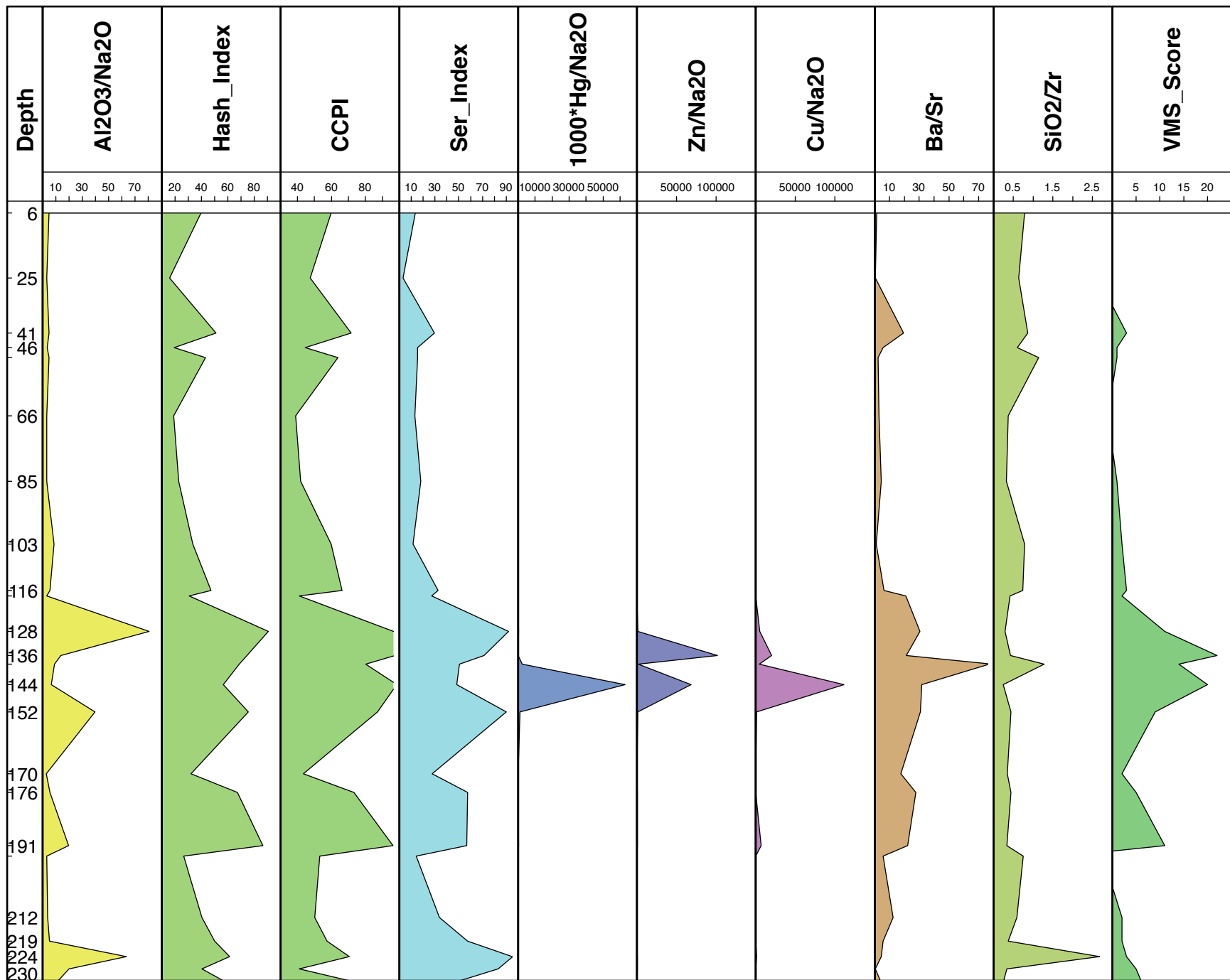


Figure 12 (continued). Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-07-03.

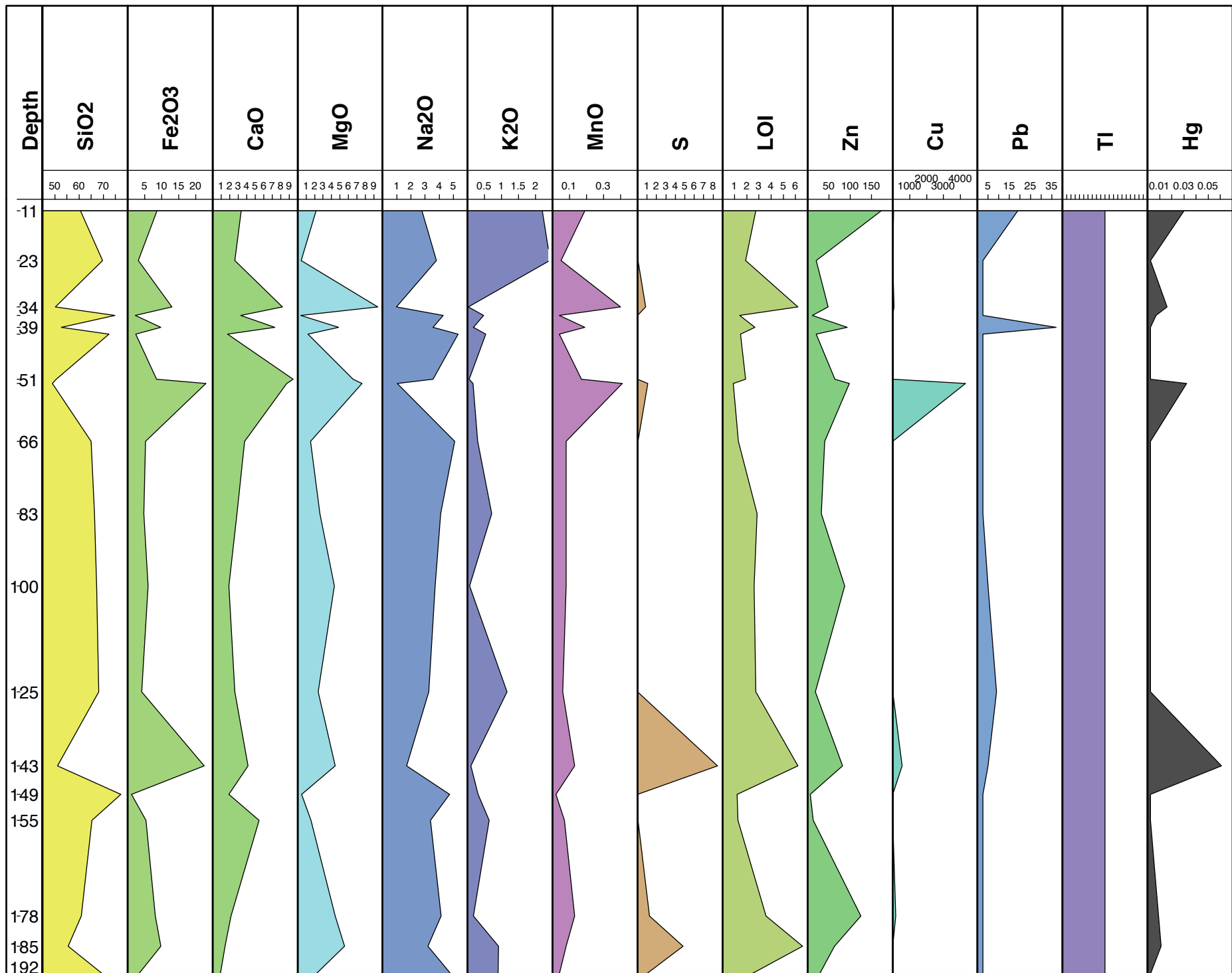


Figure 13. Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-05.

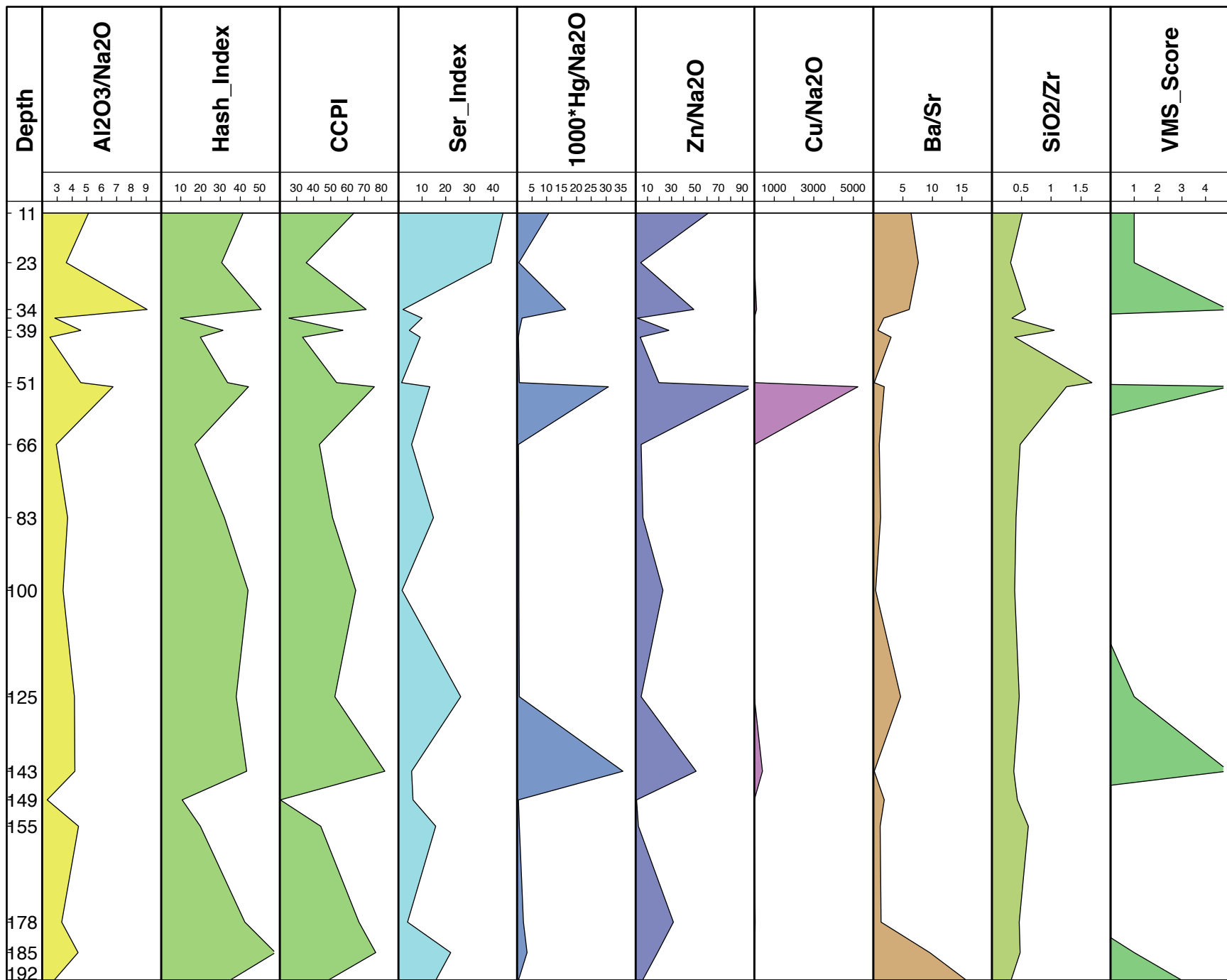


Figure 13 (continued). Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-05.

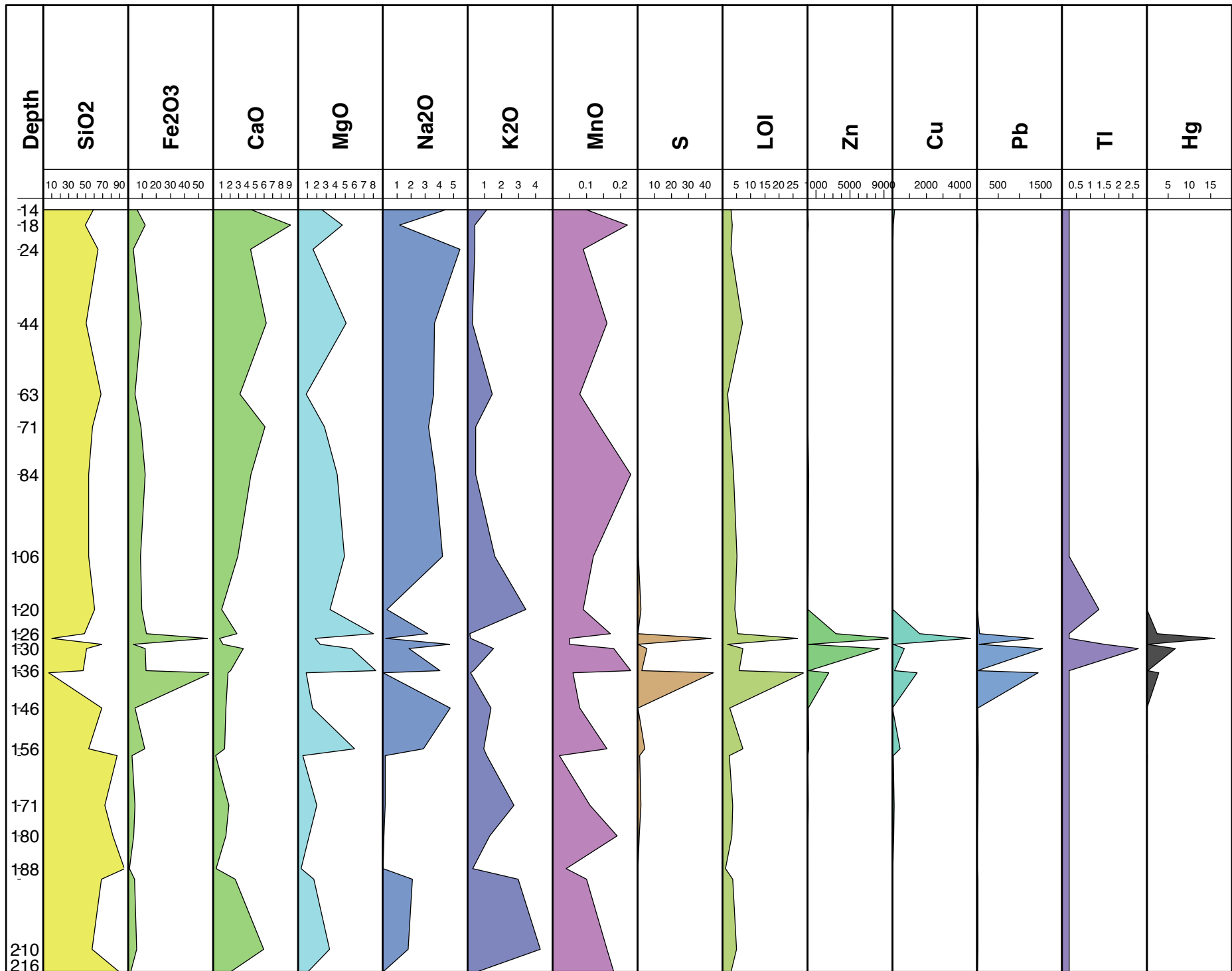


Figure 14 . Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-07.

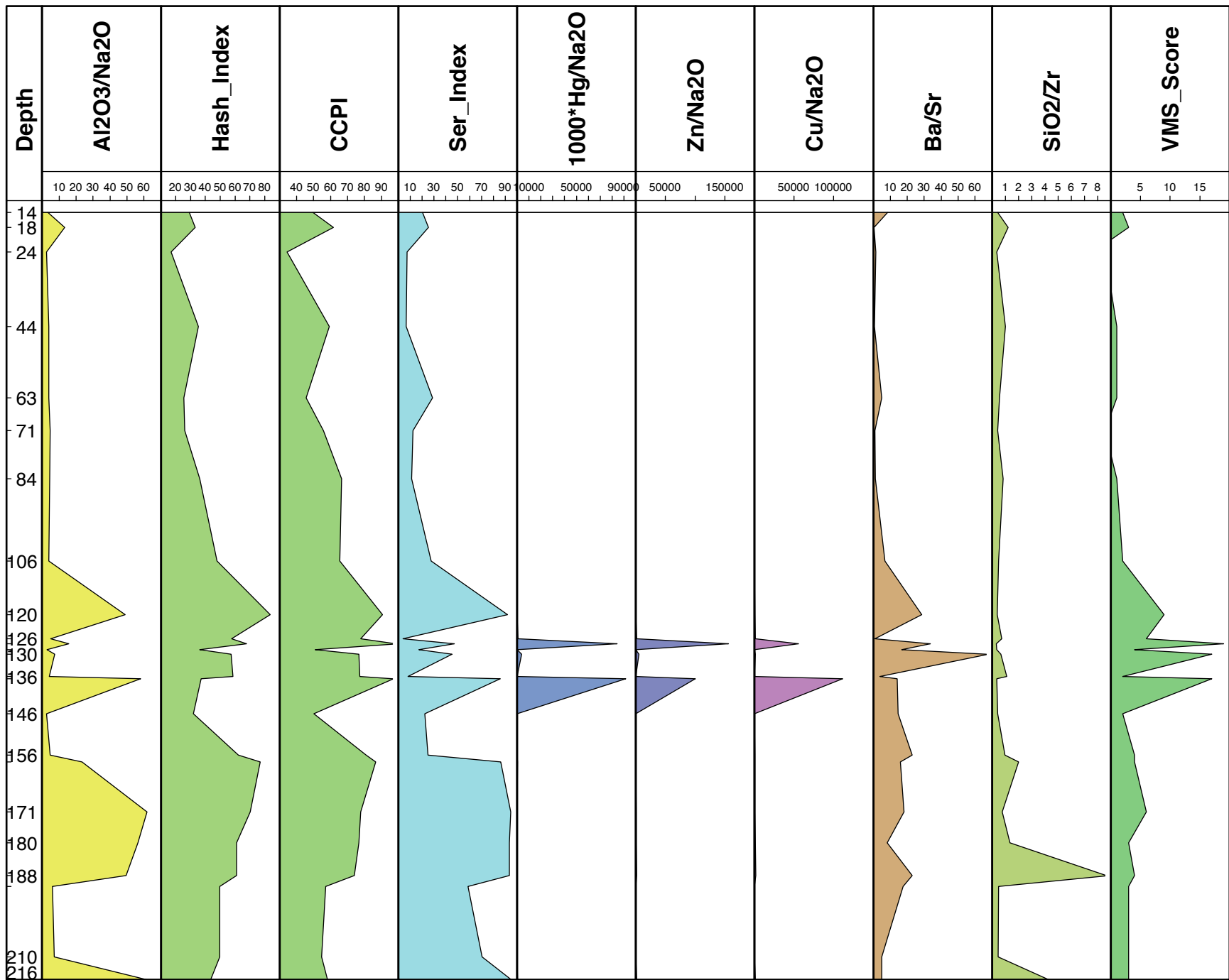


Figure 14 (continued). Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-07.

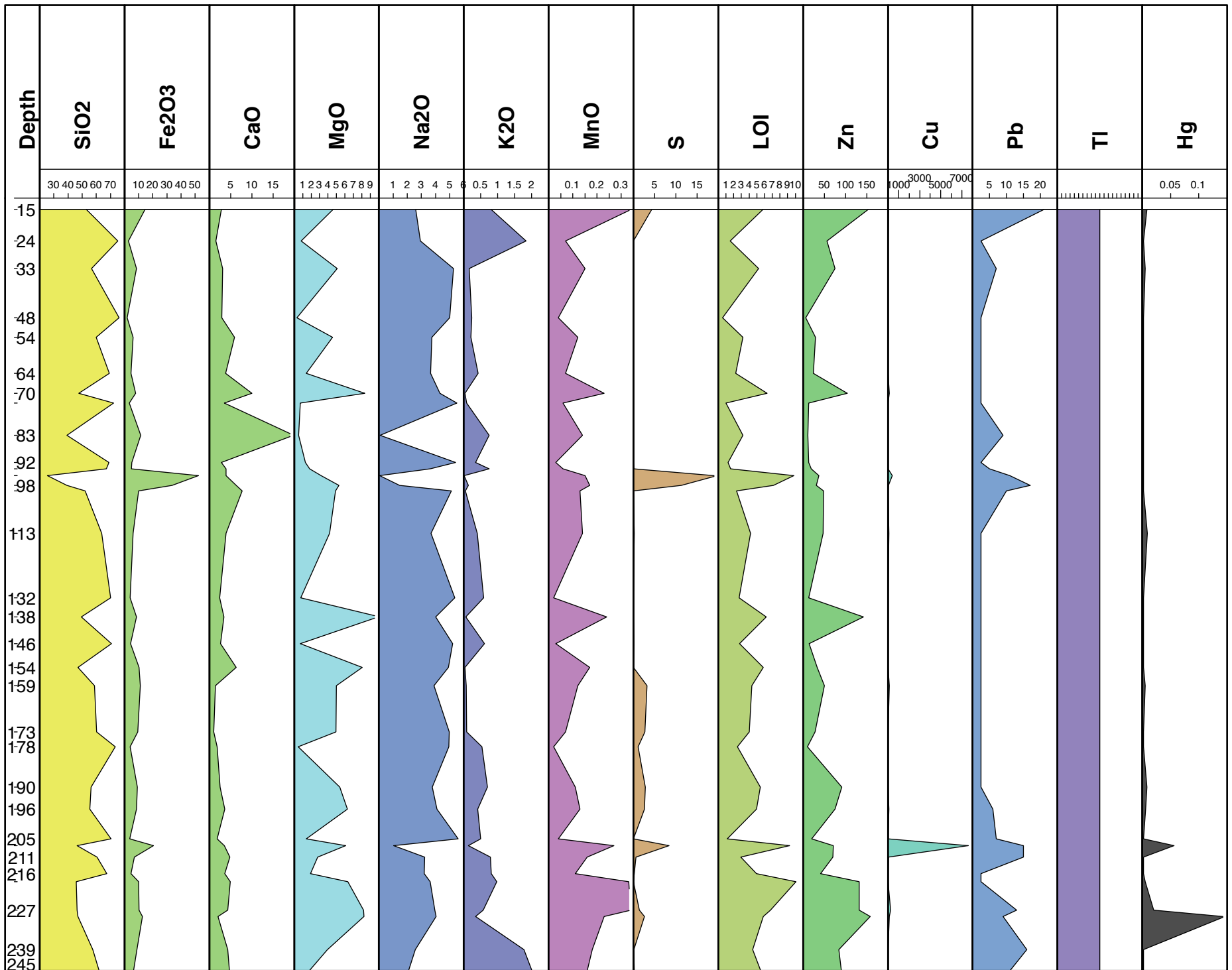


Figure 15 . Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-12.

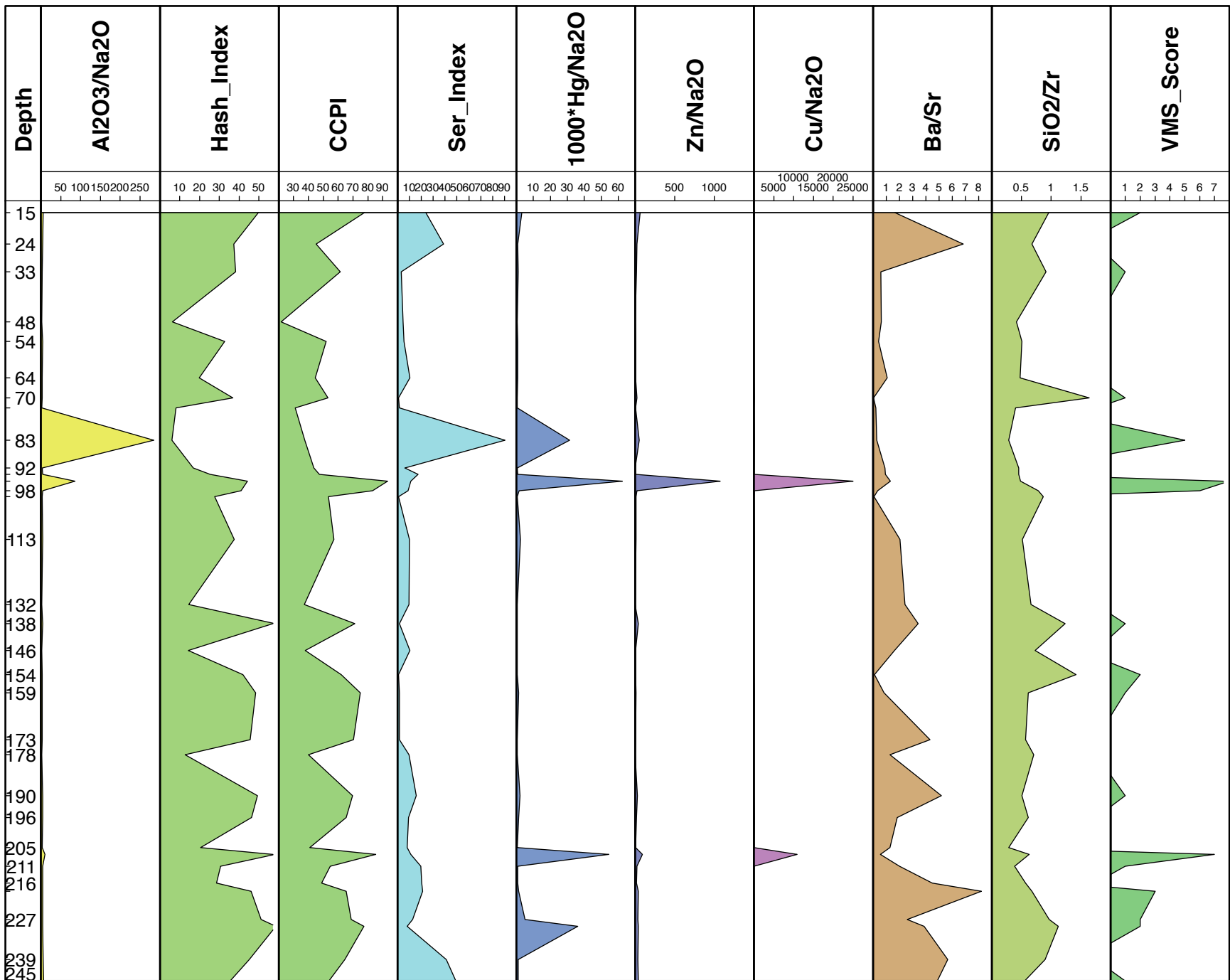


Figure 15 (continued). Downhole profiles for key trace elements, element ratios, and alteration indexes for drill hole MOR-08-12.

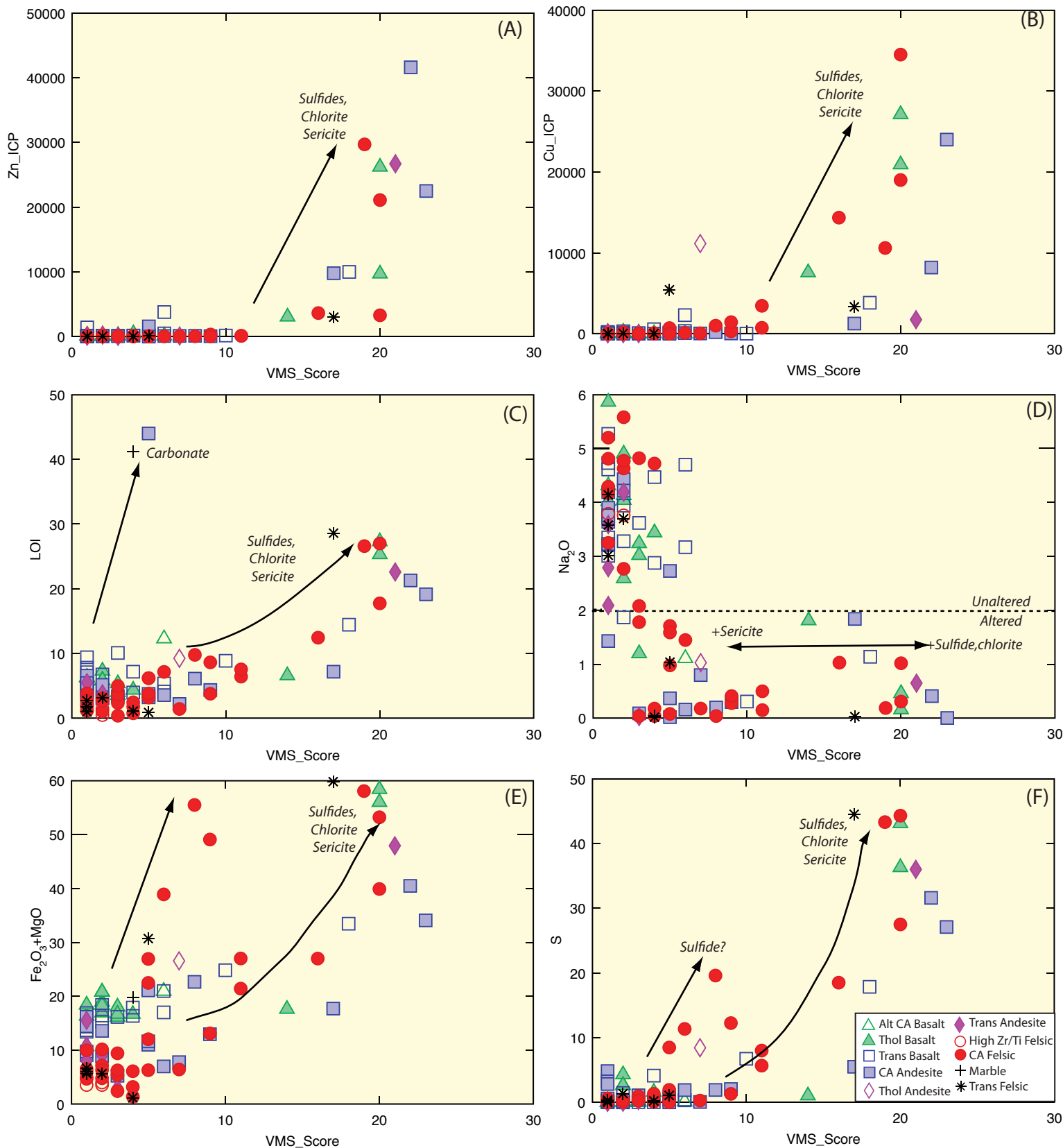


Figure 16. VMS score against other indicators of mineralization, including base metals Zn (A) and Cu (B), LOI (C), Na₂O (D), Fe₂O₃+MgO (E), and S (F). Notably, values higher than 5 seem to be key for outlining potentially prospective rocks. Values greater than 10 are associated with highly prospective rocks.

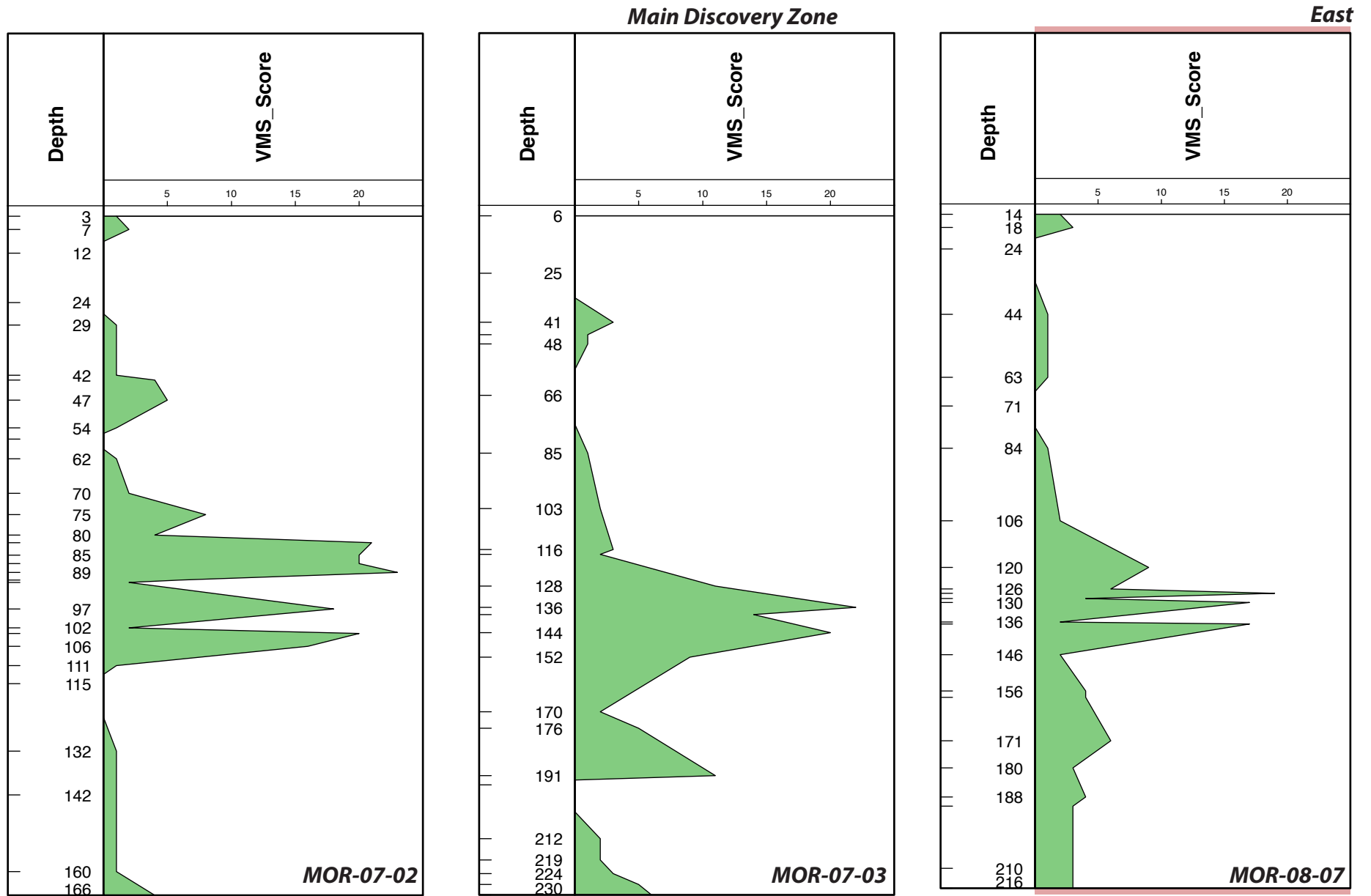


Figure 17. Downhole profiles for the VMS score for holes from the Main Discovery Zone. Note the broad profile found in all three holes, but its greater intensity towards the Main Discovery Zone and west.

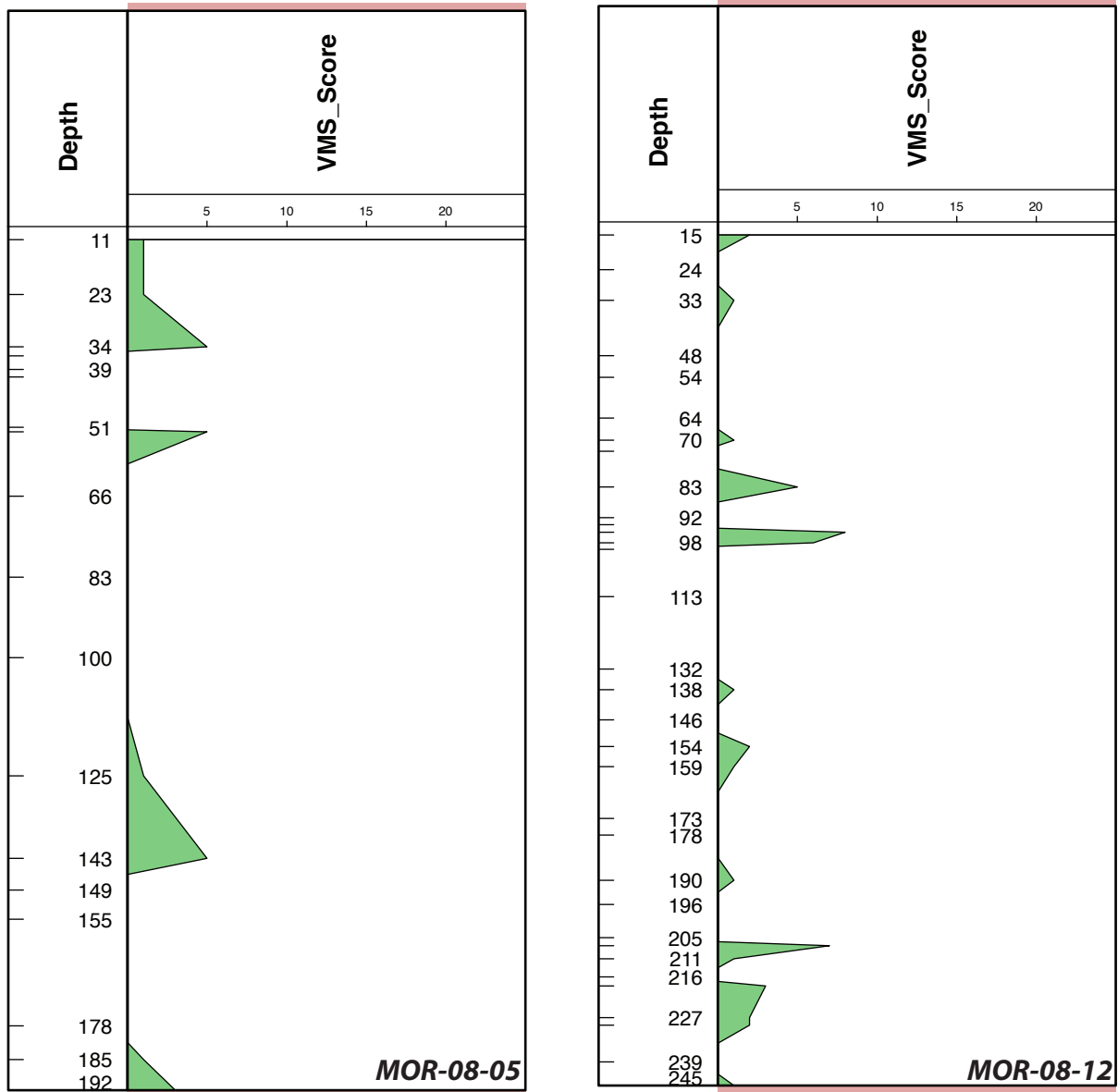


Figure 18. Downhole profiles for the VMS score for holes from the SD Zone. Note the lower intensity of the VMS score in this prospect in comparison to the Main Discovery Zone.

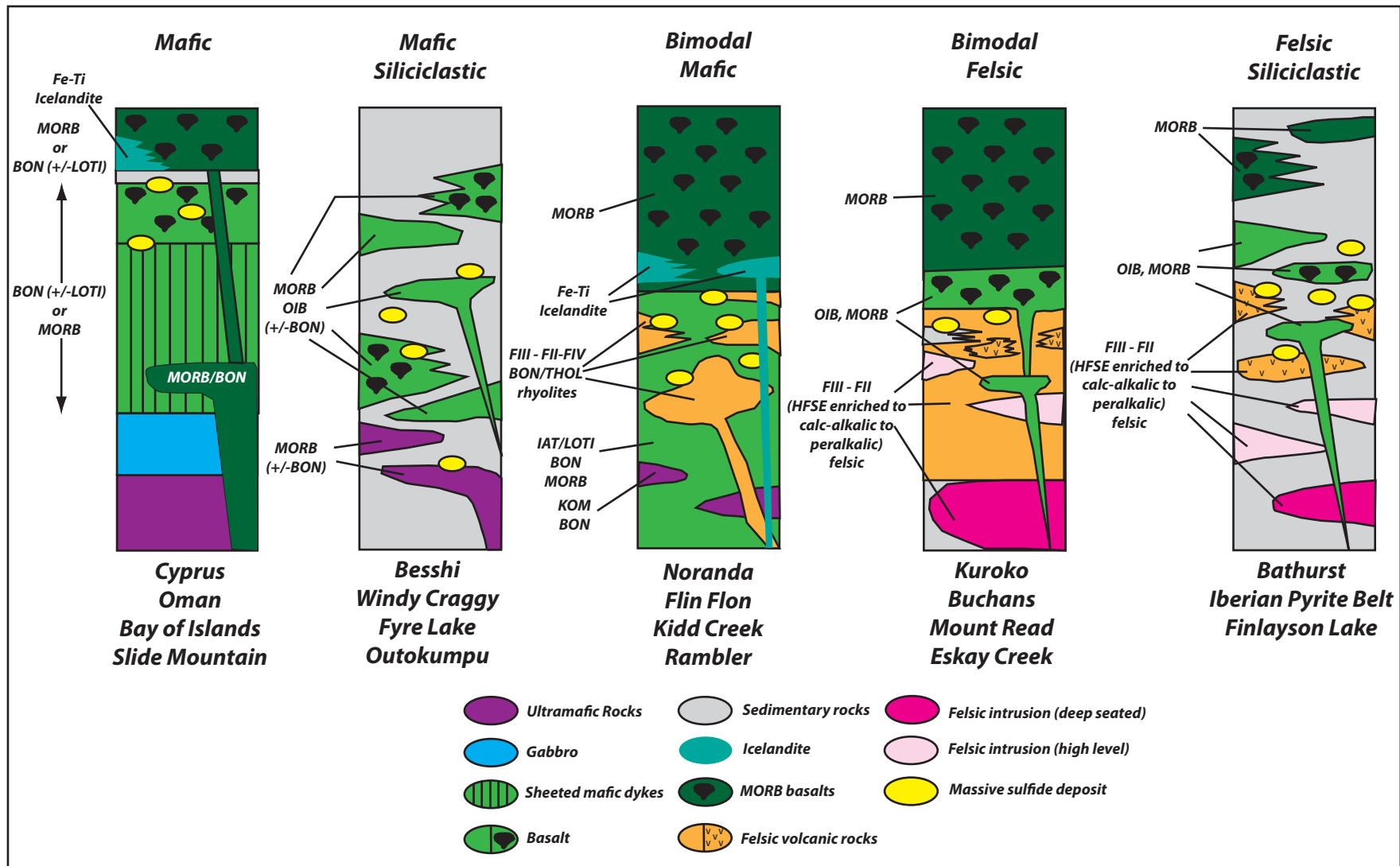


Figure 19. Petrochemical assemblages for VMS deposits (after Piercey, 2009) illustrating the various lithostratigraphic and chemostratigraphic characteristics for different VMS environments. Notably, the MOR prospect bears some similarities to the bimodal felsic to felsic siliciclastic VMS environment. This does not prove that there will be VMS mineralization present or found in the MOR area. It does illustrate, however, that the area may have potential to host mineralization.

Q1-26442

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 West Hastings Street
Vancouver, B.C. V6B 1L8

Telephone: 604-688-2568

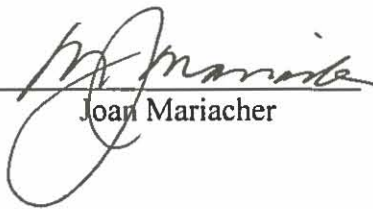
Fax: 604-688-2578

AFFIDAVIT



I, Joan Mariacher, of Vancouver, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Mor 1-290 mineral claims on Claim Sheet 105C/1 is accurate.


Joan Mariacher

Sworn before me at Vancouver, B.C.

this 8th day of April 2010.


Barrister & Solicitor

IAN J. TALBOT
Barrister & Solicitor
281 East 5th Street
North Vancouver
British Columbia
Canada V7L 1L8

Statement of Expenditures
Mor 1-290 Mineral Claims
April 8, 2010

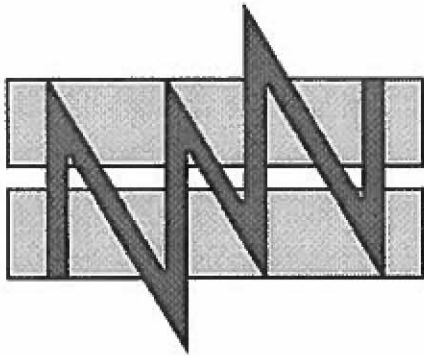


Labour

B. Wengzynowski (geologist) September 2009 – 75 hrs @ \$100/hr	\$ 7,875.00
January to April 2010 – 43 hrs @ \$100/hr	4,515.00
M. Blythe (geologist) September 2009 – 7 1/2 days @ \$695/day	5,473.13
S. Newman (office work) March 2010 – 19 hrs @ \$44/hr	<u>877.80</u>
	18,740.93

Expenses

MWH Geo-Surveys Ltd.	28,072.52
Capital Helicopters Inc. – 11.5 hrs @ \$1025/hr plus fuel	12,546.99
Discovery Helicopters Ltd. – 1.4 hrs @ \$1040/hr plus fuel	1,669.45
Stephen J. Piercey	4,407.00
ALS Chemex	<u>7,251.58</u>
	53,947.54
Total	<u>\$72,688.47</u>



**MWH
Geo-Surveys
Ltd.**

October 4, 2009

IN ACCOUNT WITH:

Tarsis Capital Corp.
1103 - 750 W Pender Street
Vancouver BC
Canada V6C 2T8

INVOICE # 793: Attn: Mr. Marc G. Blythe

Re: gravity/GPS survey at MOR properties, Yukon

Mobilization: Sept. 20; 1 day @ \$1,875	1,875.00
Survey production: Sept. 21-26; 6 days @ \$2,655	15,930.00
Demobilization: Sept. 27; 1 day @ 1,875	1,875.00

Reimbursable expenses (less GST):

Air tickets mobilization:	2,051.68
Air tickets demobilization:	3,383.92
Excess baggage:	295.00
Whitehorse Hotel:	387.00
Car Rental:	889.35
Gas & taxi:	48.78

Sub-total:	26,735.73
GST #R103816062 :	1,336.79

Total now due: \$ 28,072.52

MWH Geo-Surveys Ltd.

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 Phone: (867) 668-6200 Fax: (867) 668-6201
 capitalheli@polarcom.com



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ITEM NO.	QUANTITY	UNIT	DESCRIPTION	GST PST	UNIT PRICE	AMOUNT
Sep 22	1.8	hrs	S/O and move crews on Morley	G	1,025.00	1,845.00
Sep 23	2.5	hrs	S/O and move crews on Morley	G	1,025.00	2,562.50
Sep 24	2.1	hrs	S/O and move crews on Morley	G	1,025.00	2,152.50
Sep 25	1.1	hrs	S/O and move crews on Morley	G	1,025.00	1,127.50
Sep 26	1.8	hrs	S/O and move crews on Morley	G	1,025.00	1,845.00
	120.0	lltrs	fuel@YXY	G	1.35	162.00
	2.2	hrs	UNUSED MINIMUMS (4 4 split)	G	1,025.00	2,255.00
			G - GST 5.00%			597.49
			GST			
Capital Helicopters (1995) Inc. GST: #899587984						
Thank You! Your Business Is Appreciated! Fuel Price includes Federal and Yukon Tax						
COMMENTS						
TOTAL ↓						12,546.99



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at Billing Address

Date: Sept 21

Archer Cathro

A/C: Gomo

Type: BH06

Pilot: Rasmussen

Telephone: _____ Customer P.O. # _____

Base: Atlin

REMARKS

T.D.G.	CODE	# of PASS.	Time UP	Time Down	Flight Time
--------	------	------------	---------	-----------	-------------

Atlin -> Morley river lodge x 2 loads to Discovery
-> Atlin

		<u>5</u>	<u>1102</u>	<u>1353</u>	<u>1.4</u>
--	--	----------	-------------	-------------	------------

More Property

Norm

Passenger Names:

Total Flight Time

1.4

Rate Per Hour \$

1040.00

Total Flight Cost

\$ 1456.00

EXPENSES	G.S.T	Fuel Supplied by:	Discovery	Customer	Per Ltr	=
Hotel		40 Ltrs from: <u>Morley Lodge</u> At	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Food		119.6 Ltrs from: <u>YSQ</u> At		<u>1.12</u>	Per Ltr	= <u>133.95</u>
Transport		Ltrs from: _____ At			Per Ltr	= _____
Total Expenses & GST					Fuel & Flight Subtotal	= \$ <u>1589.95</u>
					Fuel & Flight GST	= <u>79.50</u>

SUMMARY

TOTAL \$

<i>I hereby certify that I have</i>	FLYING	=
<i>received the above services/goods</i>	FUEL & OIL	=
<i>in good order</i>	Expenses	=
	Other	=
Signature	G.S.T.	= <u>79.50</u>
PLEASE PAY GRAND TOTAL		\$ <u>1669.45</u>



ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
 ALS Canada Ltd

2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

INVOICE NUMBER 1971420

BILLING INFORMATION	
Certificate:	VA09107974
Sample Type:	Drill Core
Account:	F
Date:	29-OCT-2009
Project:	MOR <i>A: M</i>
P.O. No.:	
Quote:	
Terms:	Net 30 Days C1
Comments:	

ANALYSED FOR			UNIT	TOTAL
QUANTITY	CODE	DESCRIPTION	PRICE	
129	PREP-31A	Crush, Split, Pulverize	5.04	650.16
129	CCP-PKG01	Complete Characterization	43.23	5,576.67
39.02	PREP-31A	Weight Charge (kg) - Crush, Split, Pulverize	0.52	20.29
10	ME-OG62	Ore Grade Elements - Four Acid	1.58	15.80
10	ASY-4A01	Four acid digestion for OG62	3.92	39.20
8	Cu-OG62	Ore Grade Cu - Four Acid	1.58	12.64
6	Zn-OG62	Ore Grade Zn - Four Acid	1.58	9.48

NA 20

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
 ATTN: ACCOUNTS PAYABLE
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

SUBTOTAL (CAD) \$ 6,324.24
 R100938885 GST \$ 316.21
TOTAL PAYABLE (CAD) \$ 6,640.45

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name: ALS Canada Ltd.
 Bank: Royal Bank of Canada
 SWIFT: ROYCCAT2
 Address: Vancouver, BC, CAN
 Account: 003-00010-1001098

Please Remit Payments To :
ALS Chemex

2103 Dollarton Hwy
 North Vancouver BC V7H 0A7



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North Vancouver BC V7H 0A7

Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

INVOICE NUMBER 1971443

BILLING INFORMATION	
Certificate:	VA09107973
Sample Type:	Rock
Account:	F
Date:	28-OCT-2009
Project:	MOR <i>AM</i>
P.O. No.:	
Quote:	ALSC-CW09-032-F-R1
Terms:	Net 30 Days C1
Comments:	

ANALYSED FOR			UNIT	TOTAL
QUANTITY	CODE	DESCRIPTION	PRICE	
11	PREP-31A	Crush, Split, Pulverize	5.04	55.44
11	CCP-PKG01	Complete Characterization	43.22	475.42
13.02	PREP-31A	Weight Charge (kg) - Crush, Split, Pulverize	0.52	6.77

Yman NA 30

SUBTOTAL (CAD) \$ 537.63

R100938885 GST \$ 26.88

TOTAL PAYABLE (CAD) \$ 564.51

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
ATTN: ACCOUNTS PAYABLE
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name:	ALS Canada Ltd.
Bank:	Royal Bank of Canada
SWIFT:	ROYCCAT2
Address:	Vancouver, BC, CAN
Account:	003-00010-1001098

Please Remit Payments To :
ALS Chemex
2103 Dollarton Hwy
North Vancouver BC V7H 0A7



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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

INVOICE NUMBER 1971459

BILLING INFORMATION	
Certificate:	VA09108634
Sample Type:	Rock
Account:	F
Date:	15-OCT-2009
Project:	MOR
P.O. No.:	[Redacted]
Quote:	ALSC-CW09-032-F-R1
Terms:	Net 30 Days
Comments:	C1

ANALYSED FOR			UNIT PRICE	TOTAL
QUANTITY	CODE	DESCRIPTION		
2	PREP-31A	Crush, Split, Pulverize	5.04	10.08
2.52	PREP-31A	Weight Charge (kg) - Crush, Split, Pulverize	0.52	1.31
2	ME-ICP41	35 Element Aqua Regia ICP-AES	4.72	9.44
2	GEO-AR01	Aqua regia digestion	2.35	4.70

Handwritten: A mor NA-20

SUBTOTAL (CAD) \$ 25.53

R100938885 GST \$ 1.28

TOTAL PAYABLE (CAD) \$ 26.81

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
ATTN: ACCOUNTS PAYABLE
1016-510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name:	ALS Canada Ltd.
Bank:	Royal Bank of Canada
SWIFT:	ROYCCAT2
Address:	Vancouver, BC, CAN
Account:	003-00010-1001098

Please Remit Payments To :
ALS Chemex

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North Vancouver BC V7H 0A7



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To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

INVOICE NUMBER 1971421

BILLING INFORMATION	
Certificate:	VA09107972
Sample Type:	Soil
Account:	F
Date:	14-OCT-2009
Project:	MOR
P.O. No.:	
Quote:	ALSC-CW09-032-F-R1
Terms:	Net 30 Days
Comments:	C1

ANALYSED FOR			UNIT	TOTAL
QUANTITY	CODE	DESCRIPTION	PRICE	
1	PREP-41A	Dry, Sieve (180 um) Soil.	0.96	0.96
0.36	PREP-41A	Weight Charge (kg) - Dry, Sieve (180 um) Soil.	1.80	0.65
1	Au-AA23	Au 30g FA-AA finish	10.19	10.19
1	ME-ICP41	35 Element Aqua Regia ICP-AES	4.72	4.72
1	GEO-AR01	Aqua regia digestion	2.35	2.35

↑ Mov NA 20

SUBTOTAL (CAD) \$ 18.87

R100938885 GST \$ 0.94

TOTAL PAYABLE (CAD) \$ 19.81

To: ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED
 ATTN: ACCOUNTS PAYABLE
 1016-510 W HASTINGS ST
 VANCOUVER BC V6B 1L8

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name: ALS Canada Ltd.
 Bank: Royal Bank of Canada
 SWIFT: ROYCCAT2
 Address: Vancouver, BC, CAN
 Account: 003-00010-1001098

Please Remit Payments To :
ALS Chemex
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7

Invoice 2010-02 Details
Invoice for Report on Litho geochemistry of Samples from the MOR Prospect, Yukon

Stephen J. Piercey, PhD, PGeo
Stephen J. Piercey Geological Consulting
11 First Avenue
St. John's, NL
A1B 1N3
spiercey@sjpgeoconsulting.com
<http://www.sjpgeoconsulting.com>

February 5, 2010

Invoice for **6 days** of consulting to Tarsis Resources for report on the litho geochemistry of samples from the MOR prospect. Days include:

- o January 5, 7, 16, and 18 (1/2 days)
- o January 8, 11, 14, and 15 (1 day)

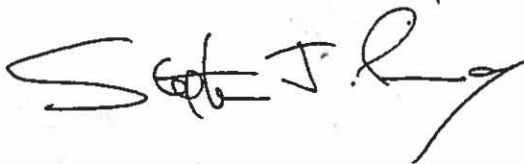
Total days: 6

A digital report and associated files were sent to Marc Blythe and Bill Wengznowski on January 18, 2010.

My daily rate is 650/day+HST and for 6 days is \$3900 with \$507 HST for a total invoiced of \$4407.00

Total invoiced: \$4407.00

Sincerely,



Stephen J. Piercey, PhD, PGeo

195.
4212. NA 14

4407.

Invoices not paid within 21 days will be subject to a 5% surcharge