Kiev Project

Focused Regional Exploration Report

YMEP 19-006

Commodity:	**Vanadium**
Mining District:	**Dawson**
Lat & Long:	**centered on 66.762° N, 136.337° W**
Project Operator:	**Tao Song**
Author:	**Tao Song, GIT**
Work period:	**June 4, 2019 – Mar 5, 2020**
Submit Date:	**Mar 19, 2020**

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SUMMARY

The Kiev project was aimed to evaluate the regional potential of black shale vanadium on the Canol Formation in northern Yukon. Field work was performed during the period of June -August 2019. Metallurgical test work and mineralogy studies were conducted from November 2019 to March 2020.

Vanadium mineralization was identified on surface by rock sampling. Subsequently, twenty mineral claims were staked to cover the mineralization over 4 kilometers. The mineralization is 40-200 meters wide and grades between 0.3 -0.5%. The property is 60 kilometers by road from Eagle Plains and 470 kilometers by road from Dawson City.

Rock samples that were collected on surface were made into a composite. Five acid leaching tests were performed to determine the recovery rate. The best leaching recovery is achieved at 86.4% by using 1:3 sulphuric acid at 90°C for 2 hours.

The exploration expenditure eligible for the YMEP is $31068.15 (Appendix I). It is recommended to conduct more exploration on surface and downdip to define vanadium resources and carry out more metallurgical test to improve vanadium extraction rates.

1 INTRODUCTION

Kiev project is a regional exploration project that is targeted to identify vanadium mineralization in northern Yukon. The target region is shown in Figure 1. Two phases of field work were performed in 2019: 1) Jun 4-12, 2) Aug 14-26. The project is subsidized by Yukon Mineral Exploration Program (YMEP) in the focus regional module. This report is prepared by Tao Song to describe the exploration program and is submitted to YMEP for approval.

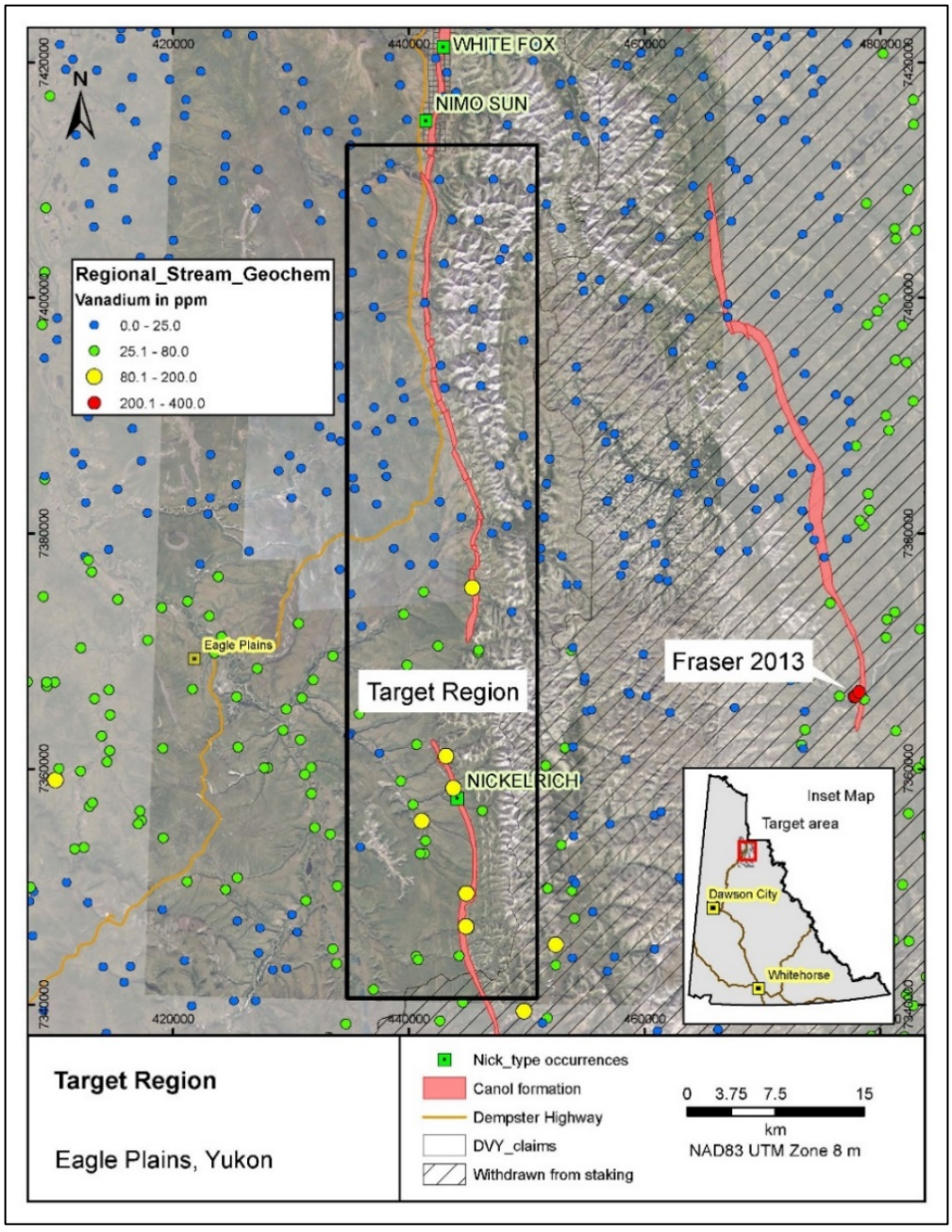

Figure 1. Vanadium Target Region

2 INITIAL REGIONAL PROSPECTING JUN 4-12, 2019

The initial regional prospecting was conducted during Jun 4-12, 2019. It was aimed to assess the vanadium mineralization on a regional scale and collect the local resources and infrastructure information for further planning. One-person crew travelled from Whitehorse to Eagle Plains which was then used as the daily base. The crew commutes by truck along Dempster Highway to the target region daily to perform the field work.

The prospecting program covers a strike length of 50 km with a focus on siliceous, non-calcareous, organic-rich black shale unit, which is known as Canol Formation. 34 rock samples and 6 soil samples were collected for chemical analyses.

2.1 Sampling Procedures and Preparation

The target region is largely covered by vegetations. Rock outcrops as mounds or at gravel pits. Rock chips are very angular, flaky to platy, in sizes of centimeters, common on mounds and interstitially exposed where vegetations are thin.

Rock samples were taken from gravel pits, road cuts, mounds or as floats. Each sample weighs about 0.5 kg and was placed into a labeled heavy-duty poly bag. Soil samples were taken from the near surface and are comprised of roughly 80% soil and 20% rock chips. Since the region has not undergone the glaciation, soil develops near its source rock and its assay results are considered representative of the geochemistry of local bedrocks. Therefore, soil samples were treated the same as rock samples. Sample locations were recorded by a handheld GPS. No samples were flagged in the field.

Samples were delivered by the crew to ALS Whitehorse for sample preparation using the code PREP-31. Samples were crushed to 70% less than 2mm, riffle split off 250 grams, and pulverized to 85% passing 75 microns. Prepared samples were sent to ALS Vancouver for chemical analyses using the 48-element four acid method ME-MS61.

2.2 Sample results

Samples returned V_2O_5 values in the range of 0.02% to 0.36%. Two rock samples have V_2O_5 values higher than 0.3% and four rock samples are between 0.2 and 0.3% V_2O_5 (Table 1).

Table 1. V_2O_5 Values of Samples

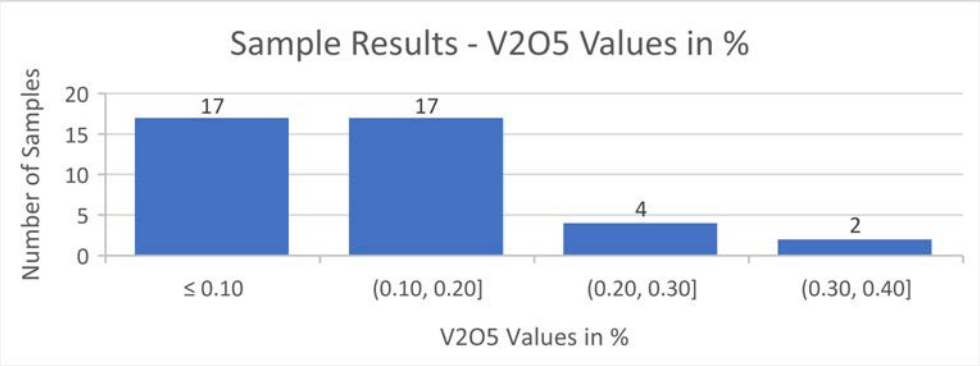

Figure 3 and Figure 4 were plotted to display vanadium values over 50 km, namely Rock River North Section and Rock River South Section. Rock River North section hosts NiMo Sun and White Fox nickel occurrences. Rock River South section has two rock samples higher than 0.3% V_2O_5.

The soft flakey black shale was thought to contain high grade vanadium, but assay results disapprove it. Instead, a more competent deep black shale unit returned higher V_2O_5 numbers.

A chemical correlation analysis shows that Vanadium and Molybdenum have the best correlation.

Figure 2. S18 Sample Station - Flaky Shale

2.3 Conclusions of the Initial Regional Prospecting

Two higher grade rock samples (S16 and S17) were found on a mound south of Rock River. It became worthwhile to examine the vanadium occurrence in the next phase. In addition, in-field XRF testing should be conducted on samples to facilitate the identification of mineralized zones. Mineral claim staking shall be planned.

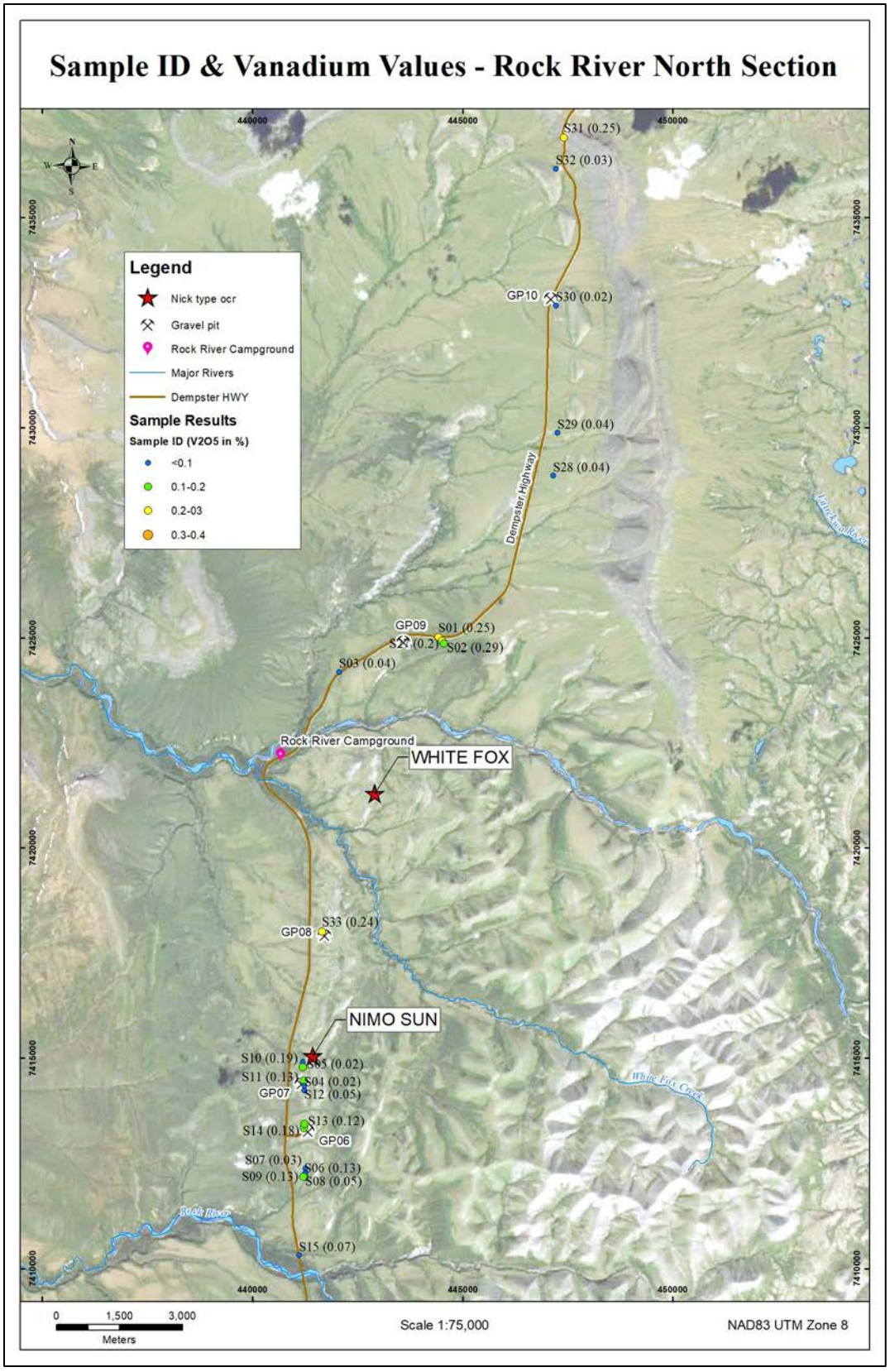

Figure 3. Sample Results in Rock River North Section

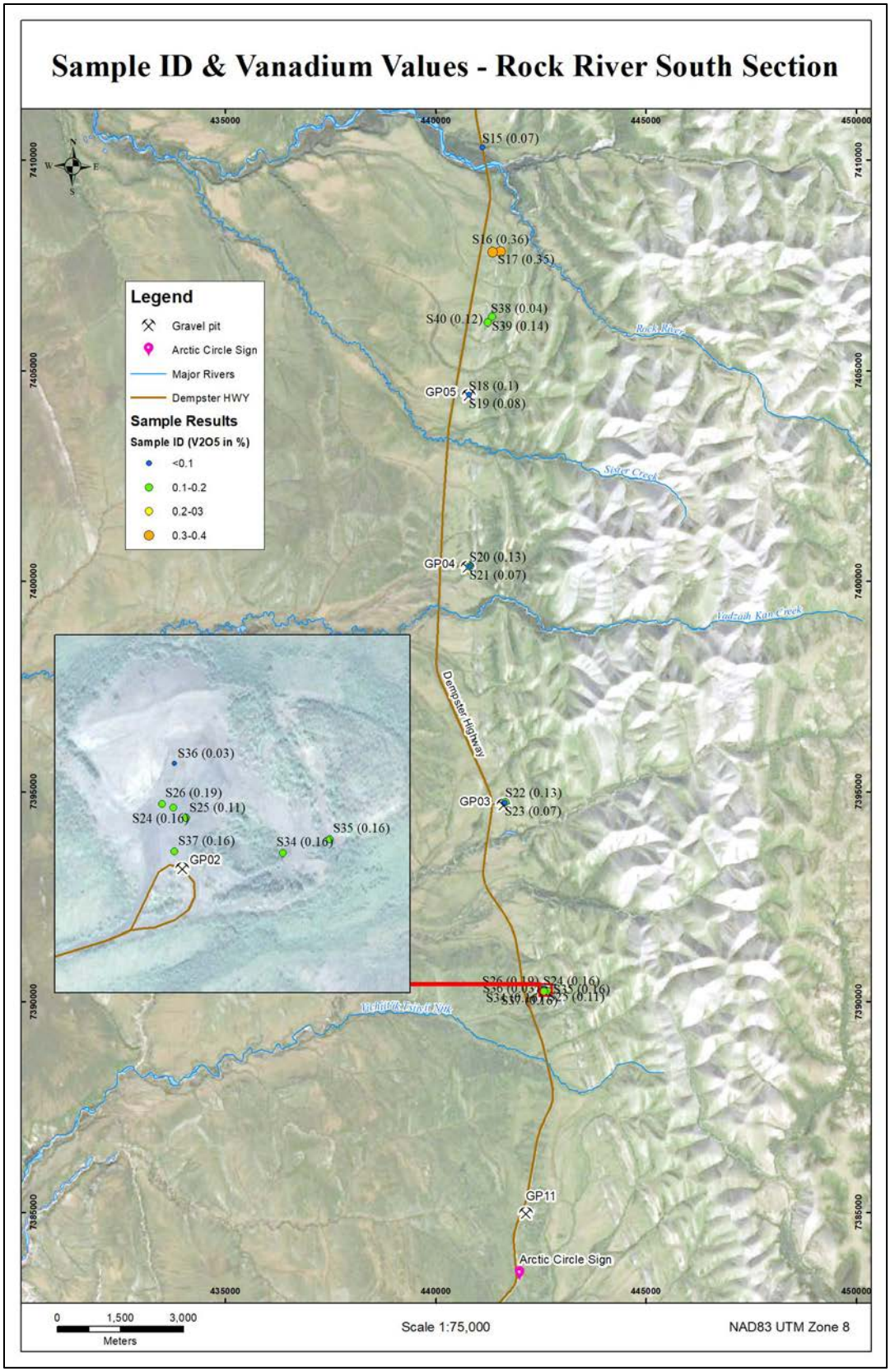

Figure 4. Figure 2. Sample Results in Rock River South Section

3 CLAIM STAKING AND PROPERTY DESCRIPTION

3.1 Claim Staking

Subsequent to the positive results of initial regional prospecting in June, 20 full-size contiguous mineral claims (KV19-KV38) were staked in August to cover the vanadium occurrence and mineralization extension (Table 2). These 20 mineral claims are collectively named the Kiev property, totalling 4.18 km^2 (Figure 6).

Claim staking was done by two-person crews. 20 mineral claims were staked. 18 of them were staked during Aug 18-19, 2019 and were recorded in the Dawson Mining Recorder office on Aug 21, 2019. 2 of them were staked on Aug 22, 2019 and were recorded in the Whitehorse Mining Recorder office on Aug 26, 2019.

3.2 Property Location and Description

Kiev property is located in northern Yukon, approximately 23 km by road north of the Arctic Circle Sign, 60 km by road north of Eagle Plains and 470 km by road north of Dawson City (Figure 5). The property is on the NTS map sheet 116I-16. The center of the property is at latitude 66°46'8'' N and longitude 136°20'7'' W in WGS 84 datum, equivalent to 441232 m Easting and 7406254 m Northing in NAD83 datum with UTM zone 8 projection.

The property is outside of the Class 1 notification area.

Table 2. KV Claims and Grant Numbers

GRANT_NUM	TENURE	Claim Name	OWNER	EXPIRY_DAT
YF81679	Quartz	KV 19	Tao Song - 100%	2020-08-21
YF81680	Quartz	KV 20	Tao Song - 100%	2020-08-21
YF81681	Quartz	KV 21	Tao Song - 100%	2020-08-21
YF81682	Quartz	KV 22	Tao Song - 100%	2020-08-21
YF81683	Quartz	KV 23	Tao Song - 100%	2020-08-21
YF81684	Quartz	KV 24	Tao Song - 100%	2020-08-21
YF81685	Quartz	KV 25	Tao Song - 100%	2020-08-21
YF81686	Quartz	KV 26	Tao Song - 100%	2020-08-21
YF81687	Quartz	KV 27	Tao Song - 100%	2020-08-21
YF81688	Quartz	KV 28	Tao Song - 100%	2020-08-21
YF81689	Quartz	KV 29	Tao Song - 100%	2020-08-21
YF81690	Quartz	KV 30	Tao Song - 100%	2020-08-21
YF81691	Quartz	KV 31	Tao Song - 100%	2020-08-21
YF81692	Quartz	KV 32	Tao Song - 100%	2020-08-21
YF81693	Quartz	KV 33	Tao Song - 100%	2020-08-21
YF81694	Quartz	KV 34	Tao Song - 100%	2020-08-21
YF81695	Quartz	KV 35	Tao Song - 100%	2020-08-21
YF81696	Quartz	KV 36	Tao Song - 100%	2020-08-21
YF81697	Quartz	KV 37	Tao Song - 100%	2020-08-26
YF81698	Quartz	KV 38	Tao Song - 100%	2020-08-26

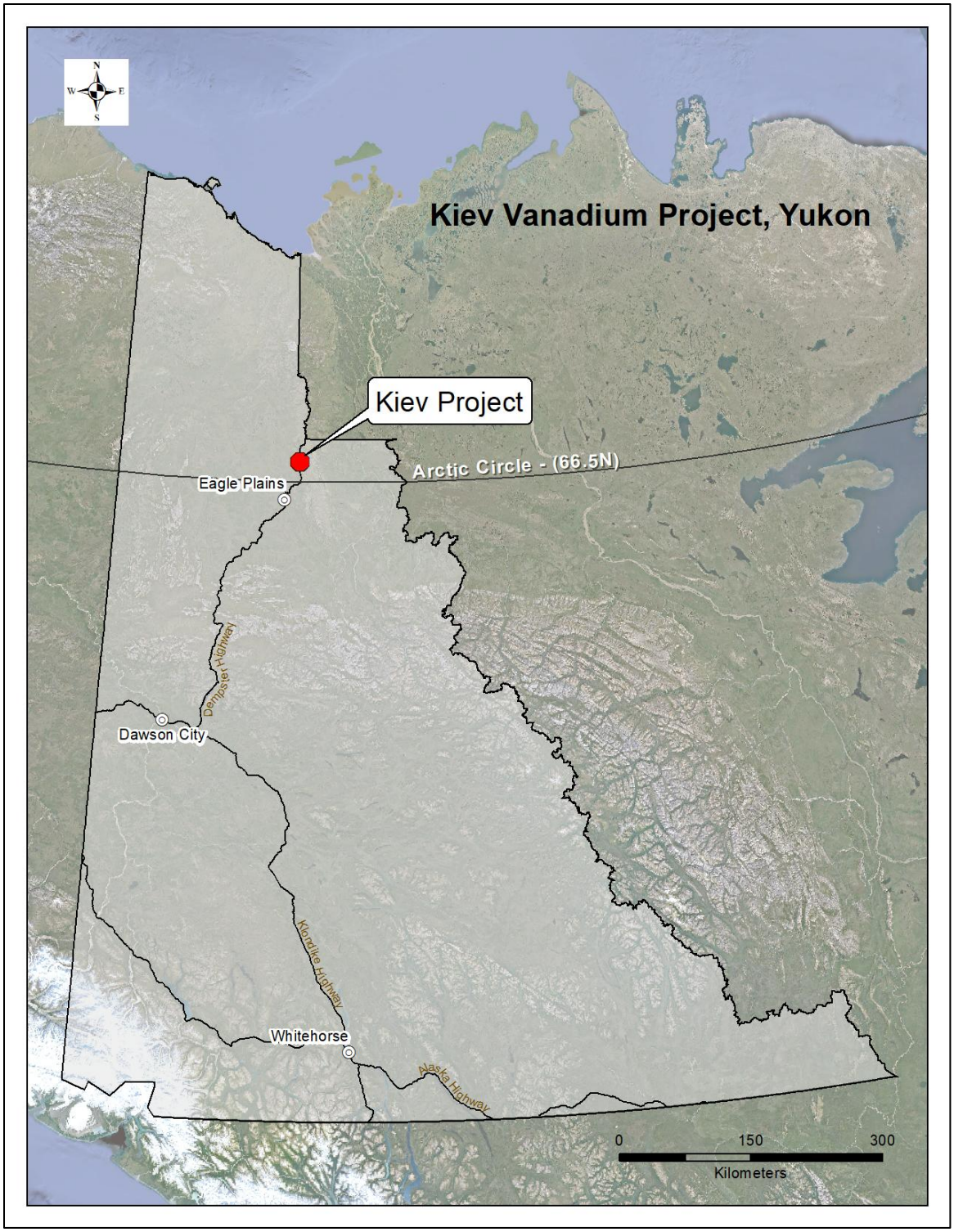

Figure 5. Kiev Property Location

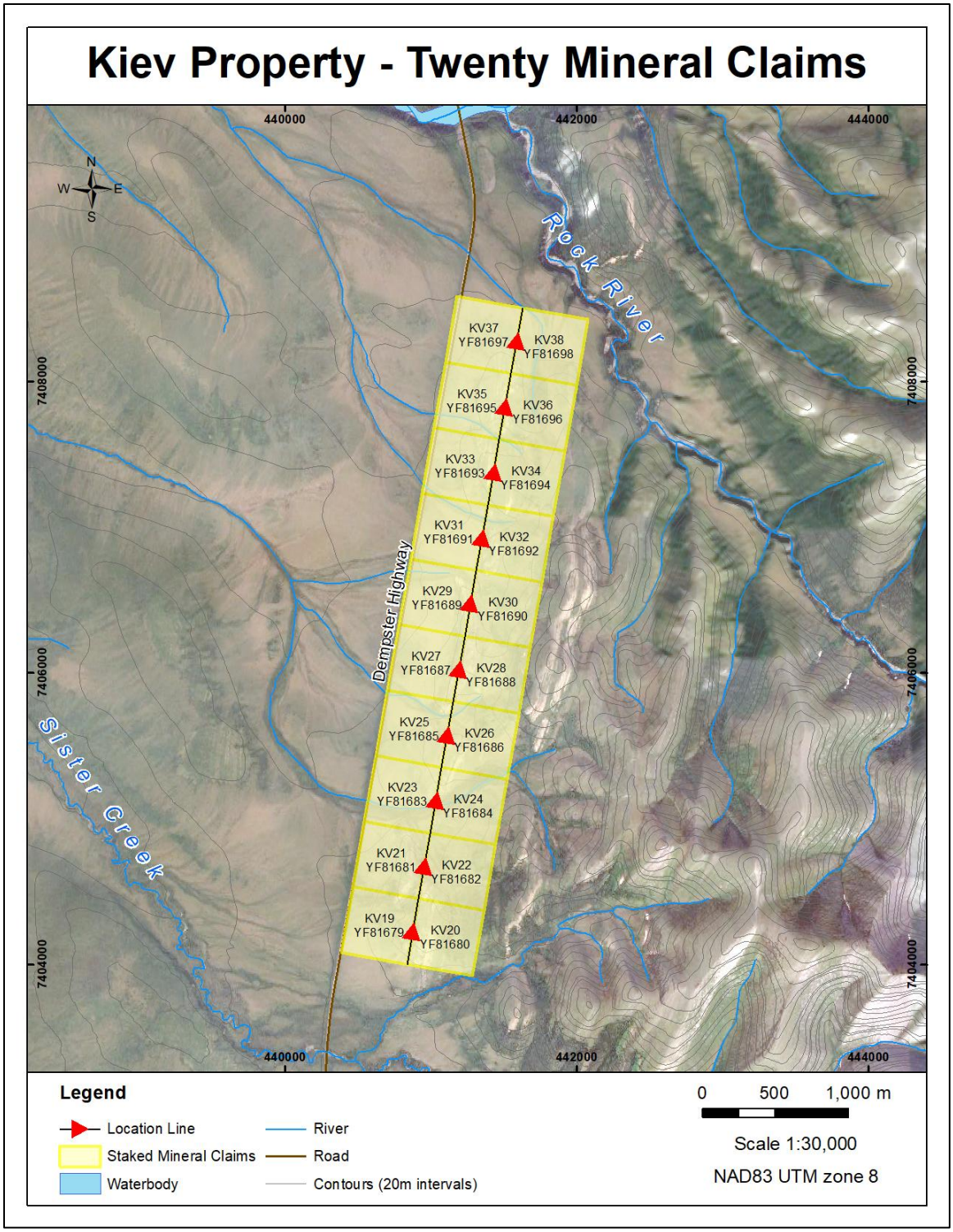

Figure 6. Kiev Mineral Claims

4 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Accessibility

Dempster Highway runs along the entire length of the Kiev property. It is an all-weather year-round gravel road that connects the Canadian road network to Arctic Ocean. The entrance of Dempster Highway is near the Klondike Highway 674 km post and is 40 km east of Dawson City. Travel time from Dawson City to the Kiev property is approximately 6 hours over 470 km by road, and from Eagle Plains to the site is about 45 minutes over 60 km by road.

4.2 Climate

The mean annual temperature for the Eagle Plains area is -6.5°C with a summer mean of 10°C and a winter mean of -23.5°C. Mean annual precipitation ranges 400-450 mm.

4.3 Local Resources and Infrastructures

The closest supply station is Eagle Plains in Yukon, 60 km south of the property. It has a population of 10, and provides services of accommodation, restaurant, gas, car repairing and showing. The second closest supply station is Fort McPherson in NWT, on the east bank of Peel River. It has a population of 700, and has convenience stores, gas stations and accommodation facilities. Rock River Campground is 12 km north of the property.

Dawson City has a population of 1300-1400, the second largest town of Yukon. Two helicopter companies are based in Dawson. Dawson City is connected to the provincial power grids and is the northernmost that power grids extend.

Gravel pits are found along the highway. A total of eleven gravel pits from Eagle Plains to the Yukon border were numbered in the field for future reference.

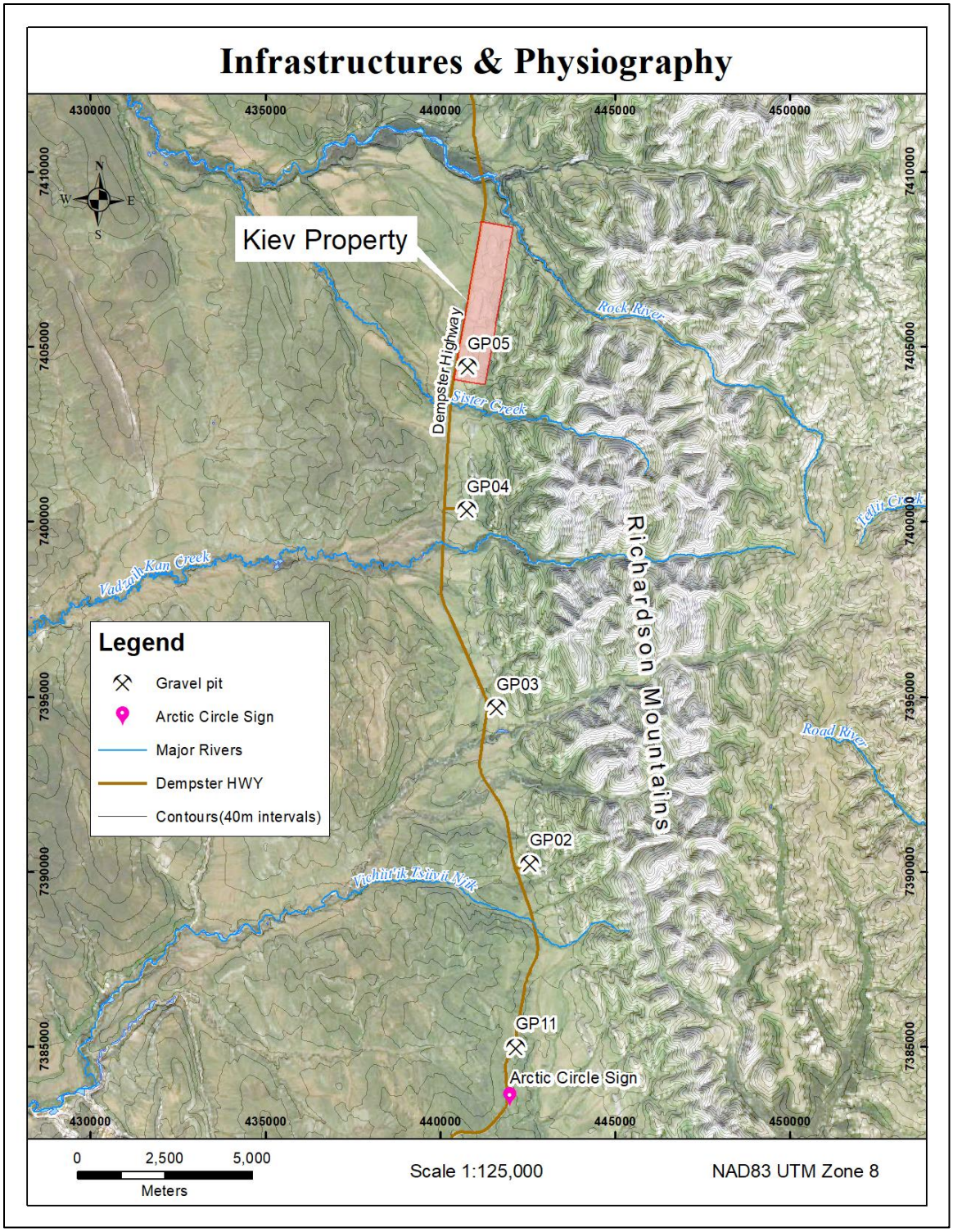

Figure 7. Infrastructure and Physiography

4.4 Physiography

The Kiev property is in the foothills of the western edge of Richardson Mountains. The main watercourses close to the property are Rock River to the north and Sister Creek to the south (Figure 7). The elevations on the property change mildly from 660 to 730 meters. A series of discontinuous mounds trending north was developed on the property and continue both north and south directions (Figure 8). To the east of the property, the elevation starts to gain from 700 to 1200 meters.

This region is classified as a high subarctic eco-climate. The vegetative cover of this ecoregion is subarctic forest. Open, often very stunted stands of black spruce and tamarack with secondary quantities of white spruce and ground cover of dwarf birch, willow, ericaceous shrubs, cotton grass, lichen, and moss, are predominant.

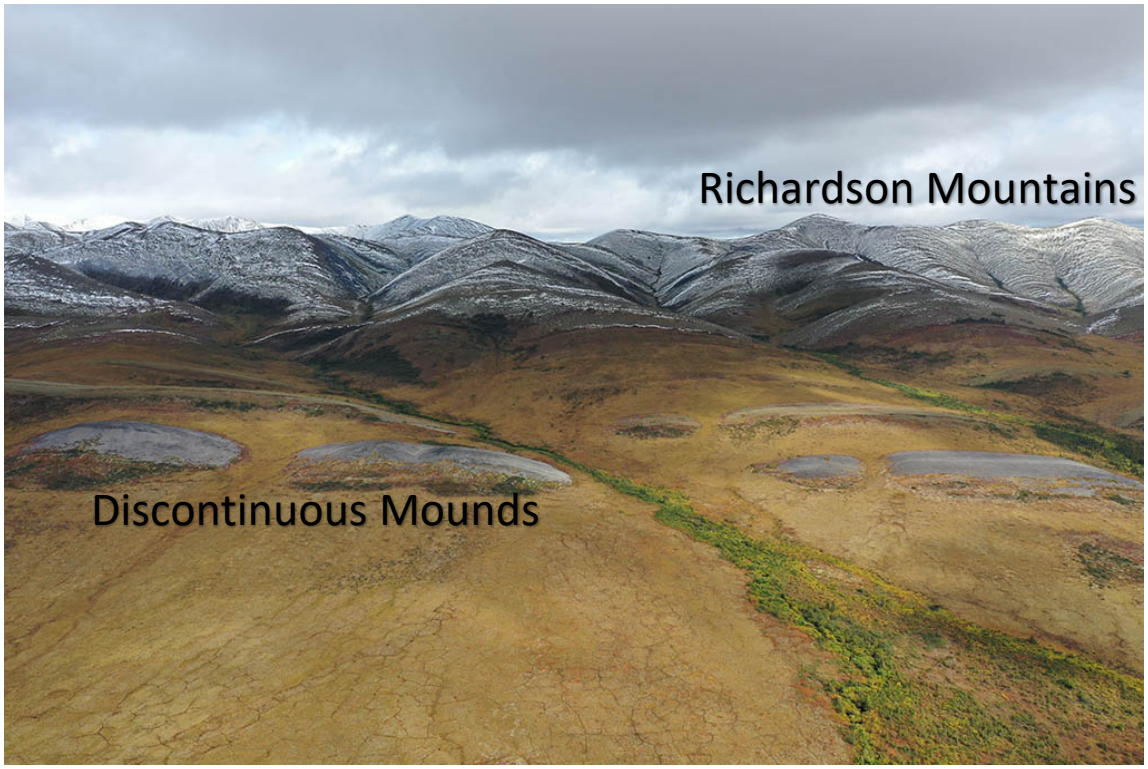

Figure 8. Discontinuous Mounds and Richardson Mountains

5 HISTORY

The Eagle Plains area was assessed for mineral potentials by Yukon Geological Survey in 1997 (Heon, 2006). One sample was taken on the Kiev property but returned low metal grades.

Shawn Ryan in 2005 explored for the Nick horizon in the vicinity of the property area. Fifteen soil samples north of Rock River returned V_2O_5 higher than 0.2%.

Strategic Metals staked the Fox and NiMo Sum property in 2006, 4 km north of the Kiev property. In 2007, seven diamond holes were drilled on NiMo Sun and White Fox showings to determine the downdip extension of the Nick horizon from surface. 50 samples were sent for analysis at ALS, and 30 of them contained more than 0.2% V_2O_5, the highest being 0.62%. Since Strategic Metals was focused on nickel and zinc, sampling was performed on the Nick horizon only. Vanadium was overlooked, and no samples were taken on high vanadium intervals.

NiMo Sun and White Fox claims expired in 2012 and Strategic Metals let them lapse. DVY196 staked these claims in 2018.

Oil was discovered in the Eagle Plain basin in 1959. Extensive exploration for petroleum was incurred in the 1960s, with 33 wells were drilled and hydrocarbon reserves defined (Osadetz, 2005). No production was made yet.

6 GEOLOGICAL SETTING AND MINERALIZATION

6.1 Regional Geology

The region is underlain by three lithological units: 1) Road River Group, 2) Canol Formation, 3) Imperial Formation. Canol Formation is a Middle-Upper Devonian dark grey to black, soft to very hard, non-calcareous black shale (Fraser, 2013). Imperial Formation is an Upper Devonian–Mississippian, marine, siliciclastic unit overlying the Canol Formation. Road River Group is a thick succession of calcareous shale unit underlying the Canol Formation (Fraser, 2013). The contact between the Canol Formation and Road River Group is marked by Ni-Zn-PGE mineralization, named Nick horizon.

The property lies along the western margin of the Richardson Mountains. Episodic reactivation of the Richardson Fault Array in Early and Middle Paleozoic formed a north- to northwest-trending intracratonic depression known as the Richardson Trough.

Richardson Mountains coincide with the location of the former early to middle Paleozoic Richardson trough (Lentz, 1972). The trough was a north-south oriented deep-water sedimentary basin flanked by carbonate shelves, Mackenzie Platform to the east and Porcupine Platform to the west (Jeletzky, 1962), that existed from Cambrian to Devonian time. The trough was inverted into a faulted, north-plunging anticlinorium by the reactivation of Paleozoic faults in Late Cretaceous and Tertiary time (Norris, 1997), resulting in the mountain range observed today.

6.2 Canol Formation and Vanadium Values at Trail River

Tiffani Fraser measured and analyzed a section of 261m along the Trail River in 2013. The returned results look appealing. Canol Formation outcrop is situated on the north bank of the Trail River, on the eastern flank of the Richardson Mountains.

The section starts from Road River Group, go to the Road River – Canol Transition zone, through the main body of the Canol Formation, into the Imperial Formation.

The Road River – Canol Transition zone is about 3 meters thick. It is known to contain the Nick horizon. Nick horizon is cherty, phosphorus, with elevated nickel and zinc. At the transition zone, vanadium content is elevated from 80 ppm to 600 ppm (Fraser, 2013). Highest vanadium values are found in the lower half of the Canol Formation and above the transition zone, 50-meter-thick averaging 0.22% V_2O_5 (Figure 9).

Road River Group and Imperial Formation contain vanadium values between 20 and 200ppm, significantly lower than Canol Formation, as shown in Figure 9.

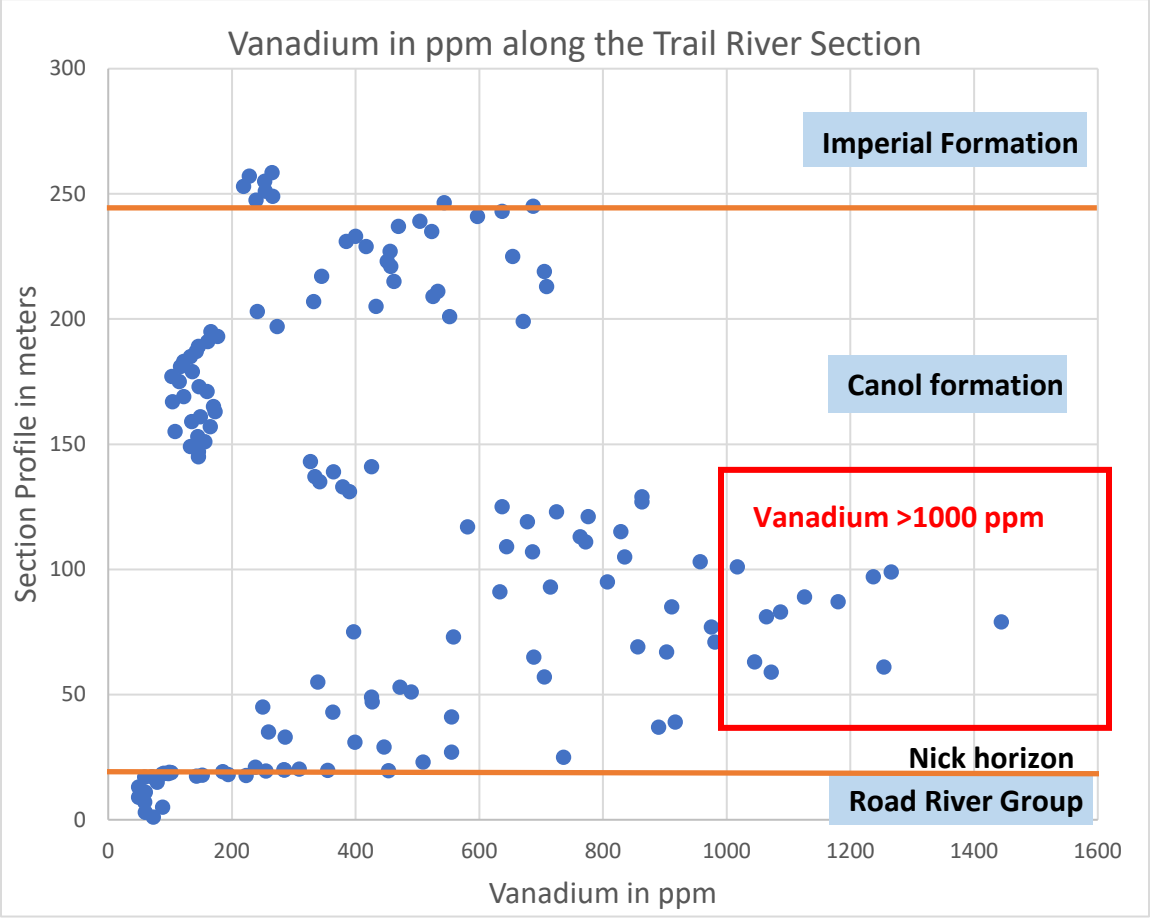

Figure 9. Vanadium Values along the Trail River Section

6.3 Property Geology and Mineralization

The property is underlain by Canol Formation that is characteristic of cherty organic rich non-calcareous black shale, dipping west 15-25°. Rocks are commonly sub-cropped on the ground and fragmented into centimeter scale angular platy pieces (Figure 10).

Cherty shale of the Canol Formation has varying silica content. The very bottom is almost grey to dark grey chert, containing vanadium lower than detection limit. It dips west at 60° and is exposed on the north trending mountains to the east of the property. On top of the chert unit is dark grey to black organic rich cherty shale, hosting V_2O_5 in the range of 0.1 to 0.5%. When weathered, rock surface becomes light grey, with some dark grey color in background. Overlying the vanadium rich unit is cherty shale. This unit has a glass sound when it is dropped off on the ground hitting other rocks. This unit has high silica content and serves as a cap to protect the organic rich cherty shale unit. Discontinuous mounds are made of this competent unit, while the depression east of mounds is made of organic rich cherty shale, covered by vegetations. Nick horizon is stratigraphically a lower unit and was not found on the property. Figure 11 shows the sub-cropped dark grey cherty shale on discontinuous mounds (looking north).

Figure 10. Sub-cropped Cherty Shale

Within the organic rich cherty shale, vanadium values are high in the core and degrades upwards and downwards. This observation on the property is consistent analytical results at Trail River by Tiffani Fraser.

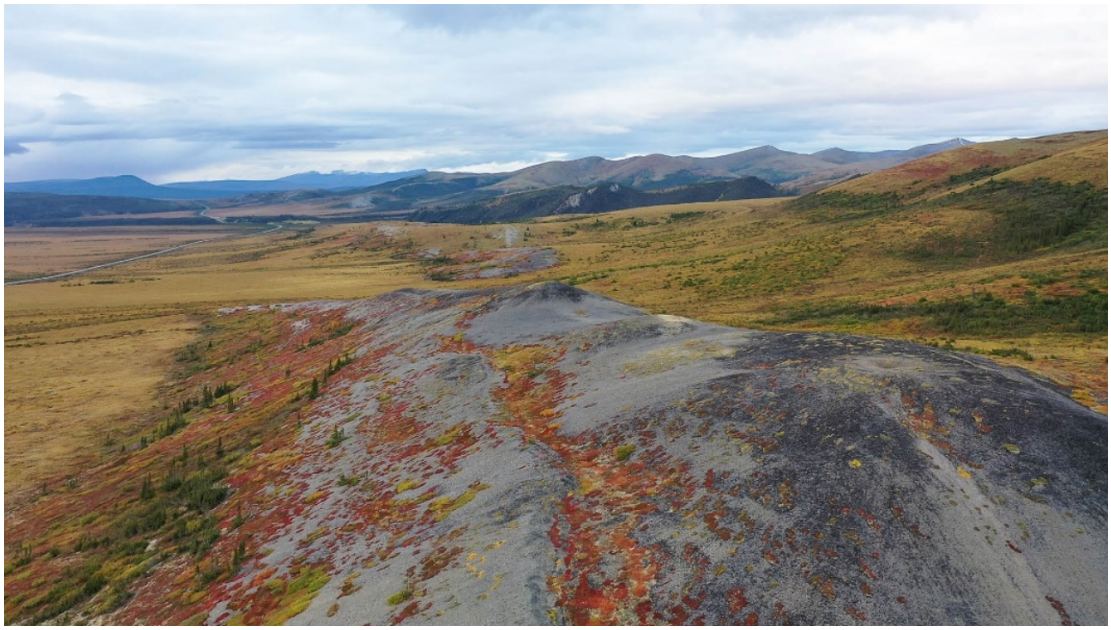

Figure 11. Dark Grey Cherty Shale (looking north)

7 DEPOSIT TYPES

There are four types of vanadium deposits identified in the world: 1) Ti-V magnetite, 2) sandstone hosted vanadium, 3) black shale hosted vanadium, and 4) vanadate.

Kiev prospect belongs to the category of black shale hosted vanadium. This type of deposits is also found in China, US, Australia, Sweden and Madagascar (Figure 12). China has a number of shale host vanadium projects in production.

Black shale vanadium deposits are believed to have formed by direct precipitation of vanadium from seawater. This method of mineralization is similar to the processes which form syngenetic copper or iron deposits. Typically, a restricted basin develops containing seawater, which was already enriched with vanadium. Over time, evaporation or deep-water stagnation enriches the vanadium content within a primarily reducing environment and the vanadium precipitates out as the siliceous sediments are deposited in a low energy environment. Vanadium is commonly bound with Fe or Mn oxides or with kerogen. Subsequent oxidation and remobilization of the vanadium can occur.

The vanadium is thought to have originally formed in a deep, restricted marine basin associated with the depositional environment of the western assemblage lithologies. It is interpreted that the vanadium was concentrated into laterally relatively continuous shale units by precipitation, absorption and evaporation processes as the restricted basin filled, evaporated and concentrated the seawater into salts.

The sedimentary environment was the primary control on mineralization. The mineralization is tabular, stratigraphically controlled and appears to follow the strike and dip of the host shale. The tabular body can be interpreted in two ways: 1) vanadium that leached out the host rock leads to a supergene zone, 2) vanadium deposition triggered by flourishing algae population as a result of significant phosphor supplies.

The vanadium-rich shale-hosted stratigraphic units are visually indistinguishable from the unmineralized shale units above and below. There do not appear to be any lithological or physical markers in the shale sequence which indicate areas of mineralization. All the mineralized zones shall be defined by chemical analysis.

Adsorption and precipitation under optimum environmental conditions must have been important in precipitating these constituents from sea water. Most of the anomalous organic shale deposits are marine. Some black shale contains multiple metals with elevated sub-economic to economic quantities. The majority of black shale in the world has no economically viable metal anomalies. The metals in black shale appear to have had little direct association or genetic affiliation with volcanism or hydrothermal processes. Much of the organic content is kerogen, and some shale bodies have been examined for hydrocarbon resources, such as Canol Formation and Road River Group. As far as known, anomalous organic or graphitic shale lithologies occur in every geologic era from the Precambrian to the Tertiary.

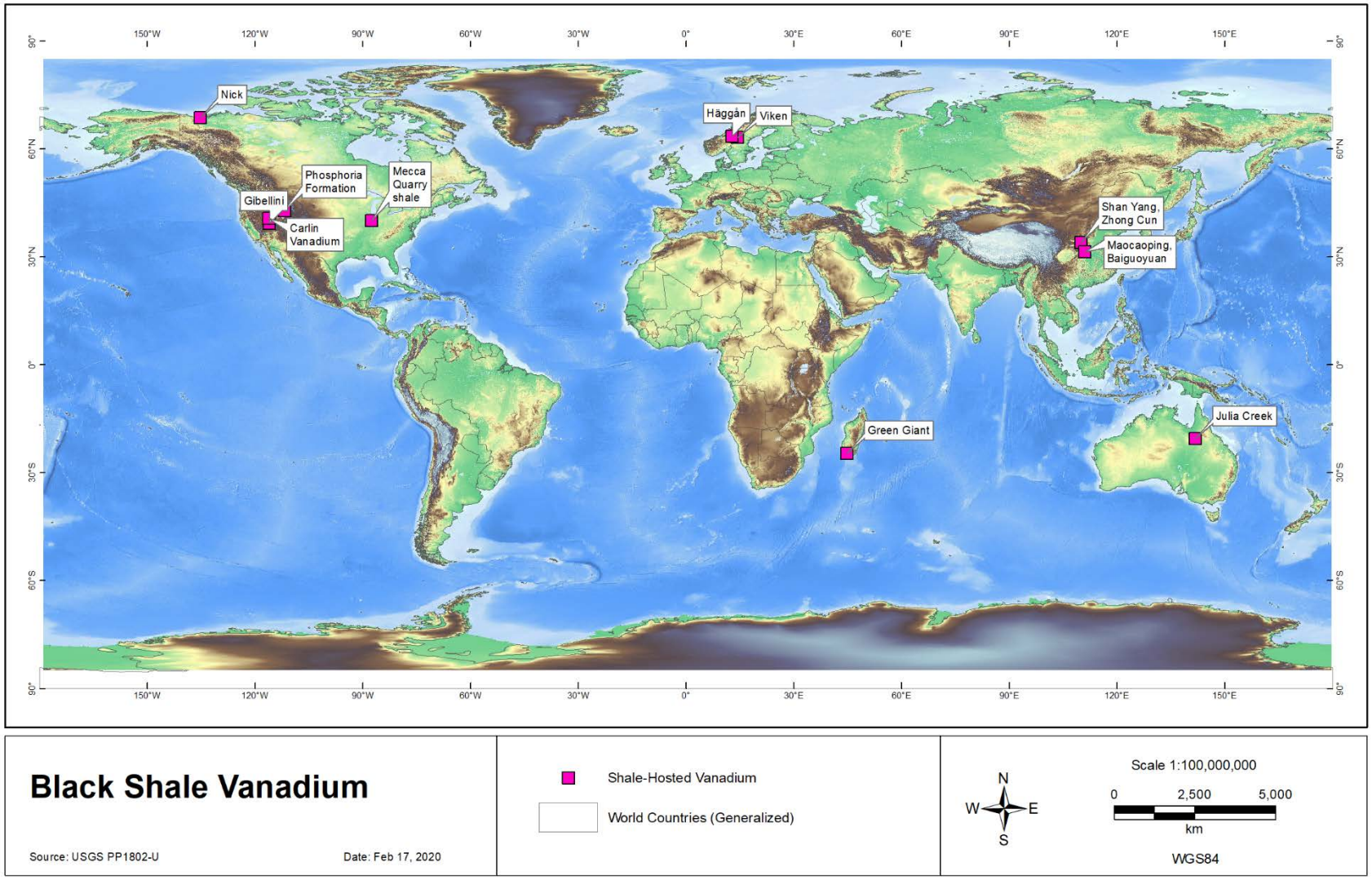

Figure 12. Black Shale Hosted Vanadium

8 EXPLORATION AUG 14-26, 2019

The second phase of exploration in the period of Aug 14-26, 2019 includes multiple activities: 1) claim staking, 2) prospecting and rock sampling, 3) geochemical analysis on drill cores by handheld XRF.

8.1 Mineral Claim Staking

Refer to Chapter 3.1 Claim Staking.

8.2 Rock Sampling and XRF Calibration

Samples were delivered by the crew to ALS Whitehorse for sample preparation using the code PREP-31. Samples were crushed to 70% less than 2mm, riffle split off 250 grams, and pulverized to 85% passing 75 microns. Prepared samples were sent to ALS Vancouver for chemical analyses using the 48-element four acid method ME-MS61.

A total of 124 rock samples were taken during the field work, as summarized in Table 3. Rock samples were placed into zip lock bags and were analyzed in the field by a handheld XRF for vanadium values. XRF was calibrated for vanadium by applying a formula, as described in chapter 8.3 XRF Calibration. Sample surface was cleaned for XRF reading. No crushing or grinding was applied to rock samples. Each sample received at least 2 readings, but only the first reading was recorded on the field book and Tyvek tag (Figure 13). Sample locations were recorded by a handheld GPS. No samples were flagged in the field.

Table 3. Sample Number and Location Summary

Location	Number of Samples
On property	98
Immediate to the property	17
Km away from property	27

Olympus Vanta XRF was hired to perform in-field geochemical analysis on rock samples. XRF is not a quantitative analysis, but when it is used properly, its values could be quantitative.

XRF calibration was performed on pulps from the 1st field trip in June. Pulps were prepared by ALS using the code Prep 31. V_2O_5 values from assay and XRF testing are plotted in Figure 14. A near perfect trend line is projected. No outliners exist. The formula y=1.6291x-11.554 is used to calibrate the XRF for field use.

The downside of XRF analysis is that it only reads on a small portion of rock and its values do not represent the whole rock. In the metallurgical test, surface rock samples were made into one composite returning 0.32% V_2O_5, 25% higher than that of the averaged XRF value of the same rocks (0.254% V_2O_5). Even though XRF results are lower and less representative than those of four acid assaying, the immediate analytical results guide the exploration to the right direction.

Figure 13. Sample and Tyvek Tag with Vanadium Value

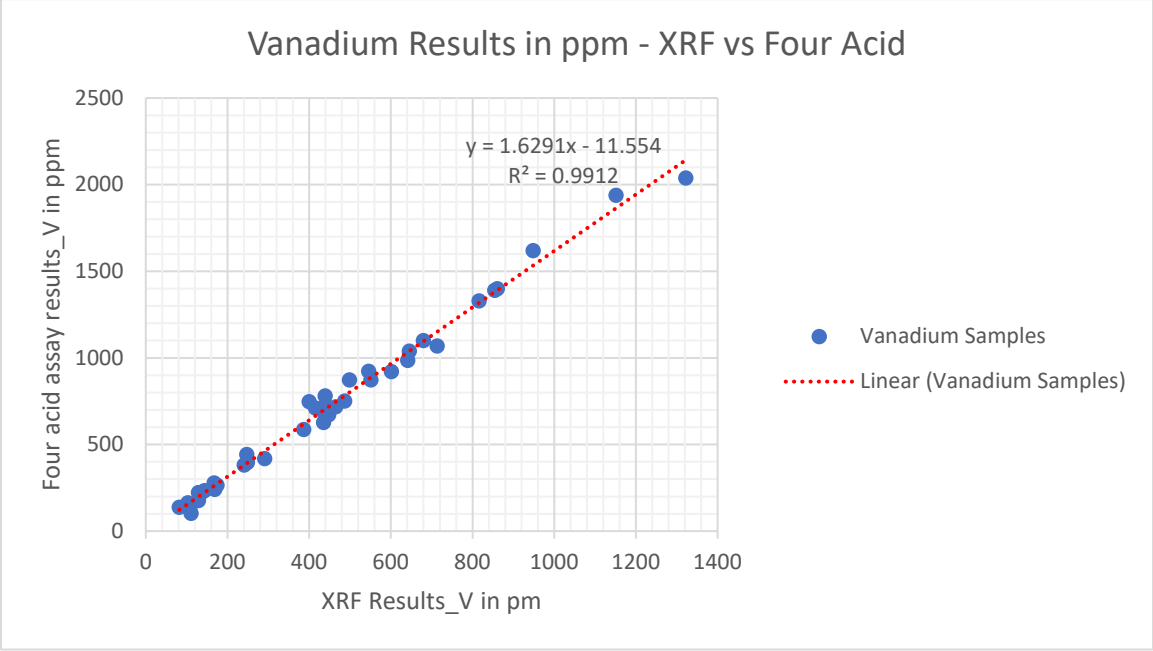

Figure 14. Vanadium Result Comparison - XRF vs Four Acid

8.3 Rock Results on and in vicinity of the Property

On the Kiev property, organic rich cherty shale that contains higher vanadium grades is largely weathered to form a low land valley. The valley is mostly covered by vegetations. Of 98 rock samples on property, 33 samples contain V_2O_5 between 0.2 and 0.3% and 9 samples contain V_2O_5 between 0.3 and 0.6% (Figure 15). High vanadium samples form a north trending line, fringed by lower grade more siliceous shale. The highest value is 0.55% V_2O_5 on the southern part of the property. Abundant rock samples that range from 0.2 to 0.4% are exposed on the northern part of the property, corresponding to subdued topography and well spread subcrop samples. Rock samples on the property or in the vicinity of the property was plotted in Figure 16.

Immediately to the east of the property is underlain by chert, returning vanadium values lower than detection limit. Immediately to the south of the property contains V_2O_5 0.1-0.3% and is the continuation of the vanadium mineralization. High grade vanadium may be obscured by overburdens.

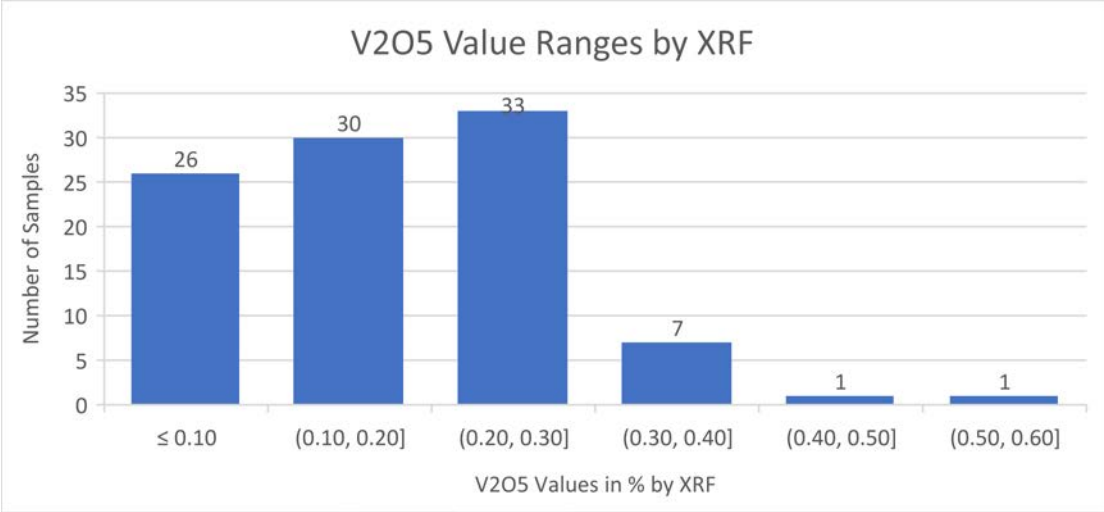

Figure 15. Vanadium Values of Rock Samples on Property by XRF

8.4 Rock Samples at GP02, GP03, GP04 and around Eagle Plains area

During the regional prospecting, some rock samples were collected from the road cut, ground, or gravel pit. The results are generally low, with the highest values no more than 0.25% V_2O_5 at GP02. Sample locations and XRF results are plotted in Figure 17, Figure 18, Figure 19, Figure 20, and Figure 21, and are also available in Appendix IV.

One carbonate sample K04 returned 1856 ppm of Neodymium. Other carbonate samples returned a similar amount of Nd along with Ce, La, and Pr. K04 was sent to ALS Vancouver for rare earth analysis using lithium borate fusion (code ME-MS81) and whole rock analysis (code ME-ICP06). It is unfortunate that rare earth elements are less than 10 ppm (Appendix V). This rock is of sedimentary carbonate origin, instead of igneous carbonatite. This error originates from the inaccuracy of XRF testing.

Rock Samples and V2O5 Values on Kiev Property

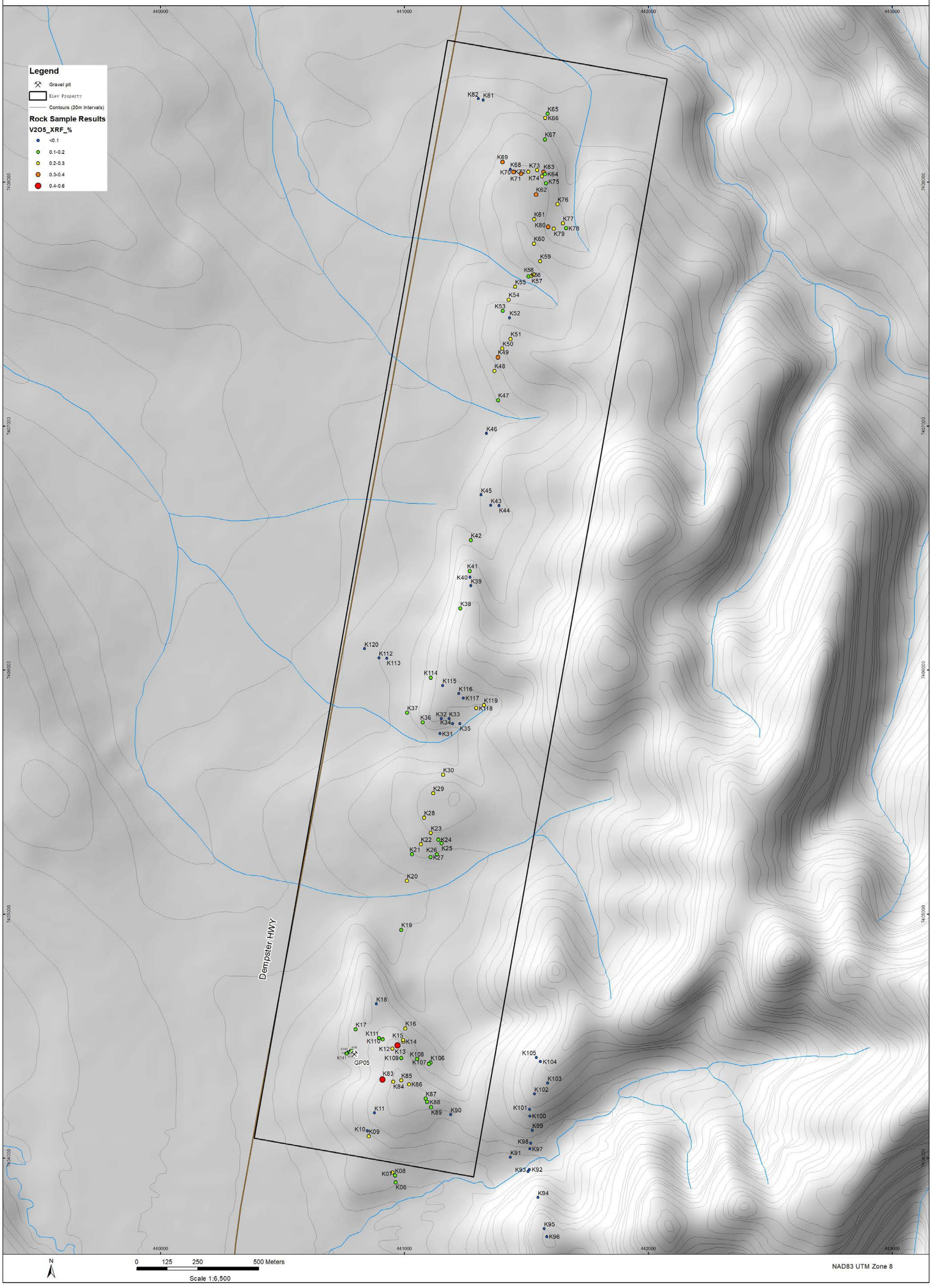

Figure 16 Rock Samples on Property and Values

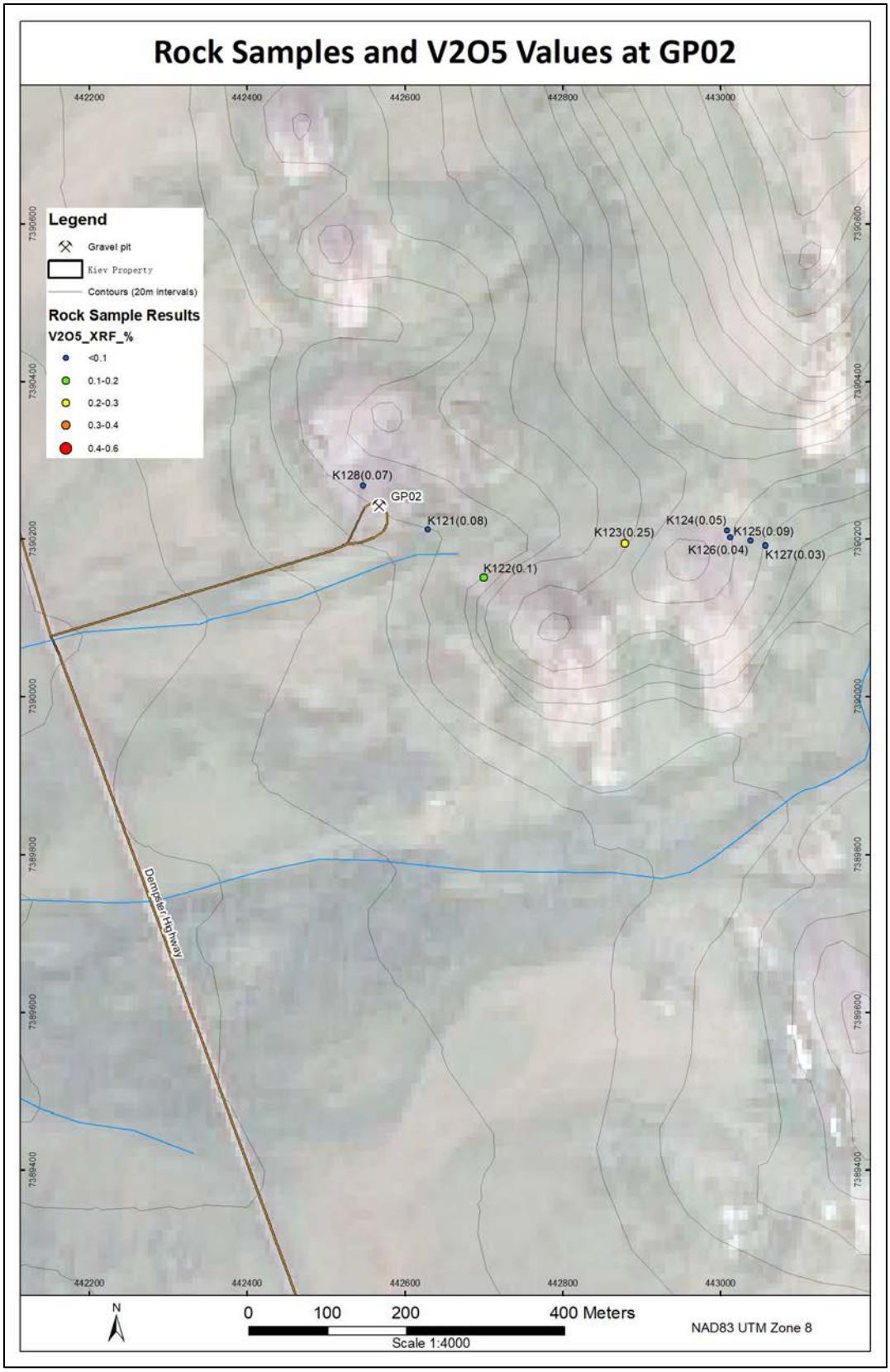

Figure 17. Rock Samples at GP02

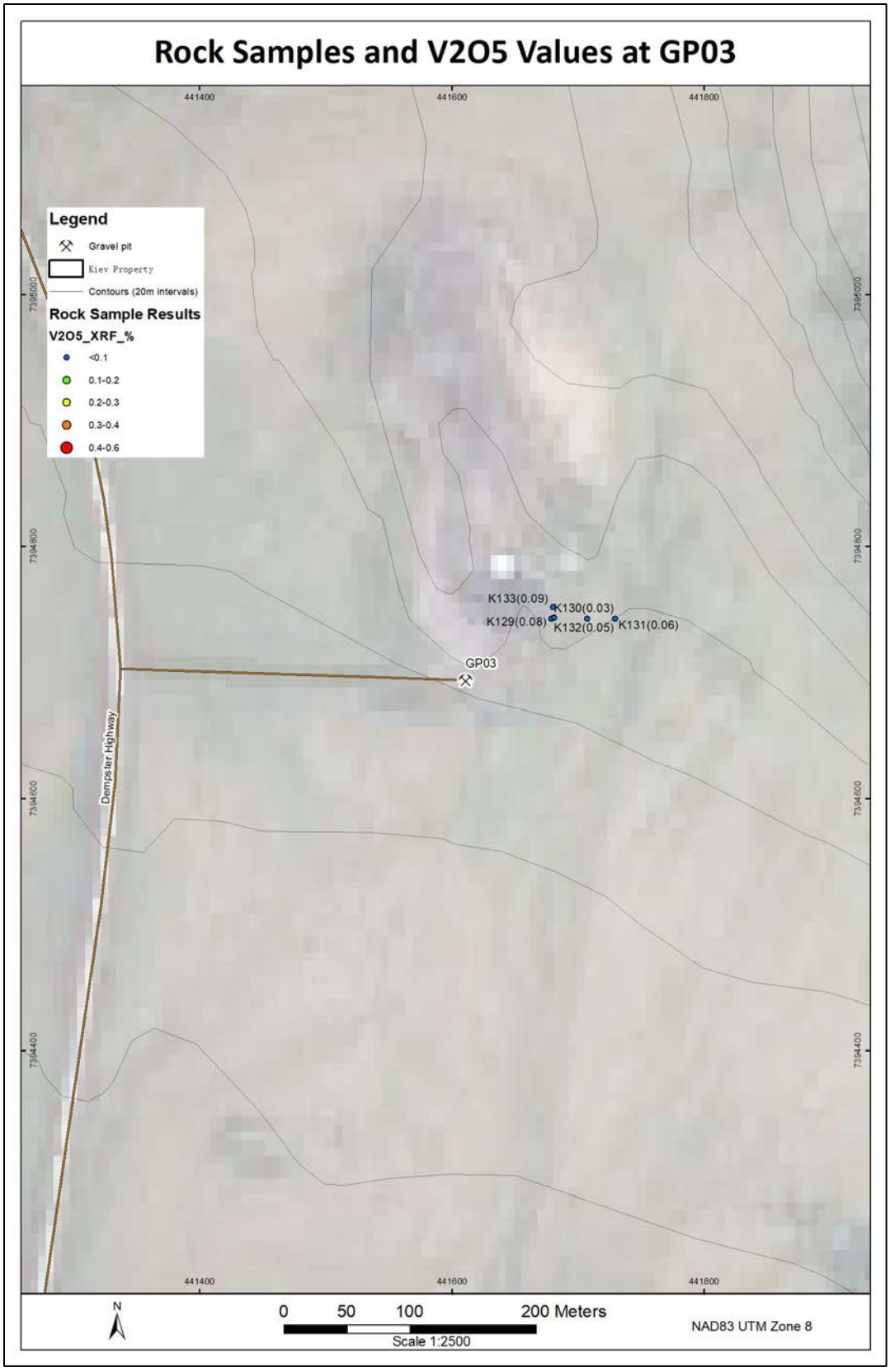

Figure 18. Rock Samples at GP03

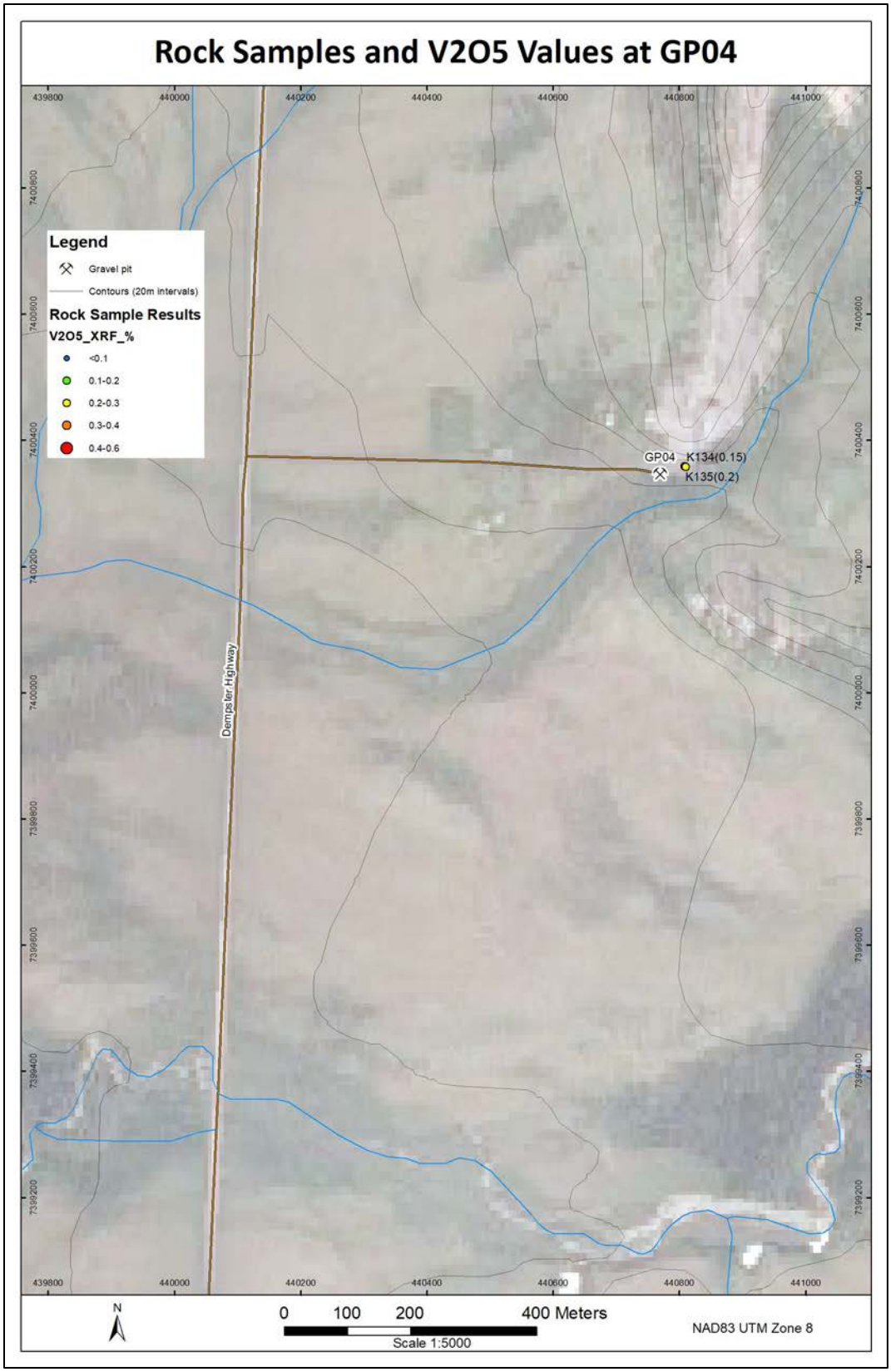

Figure 19. Rock Samples at GP04

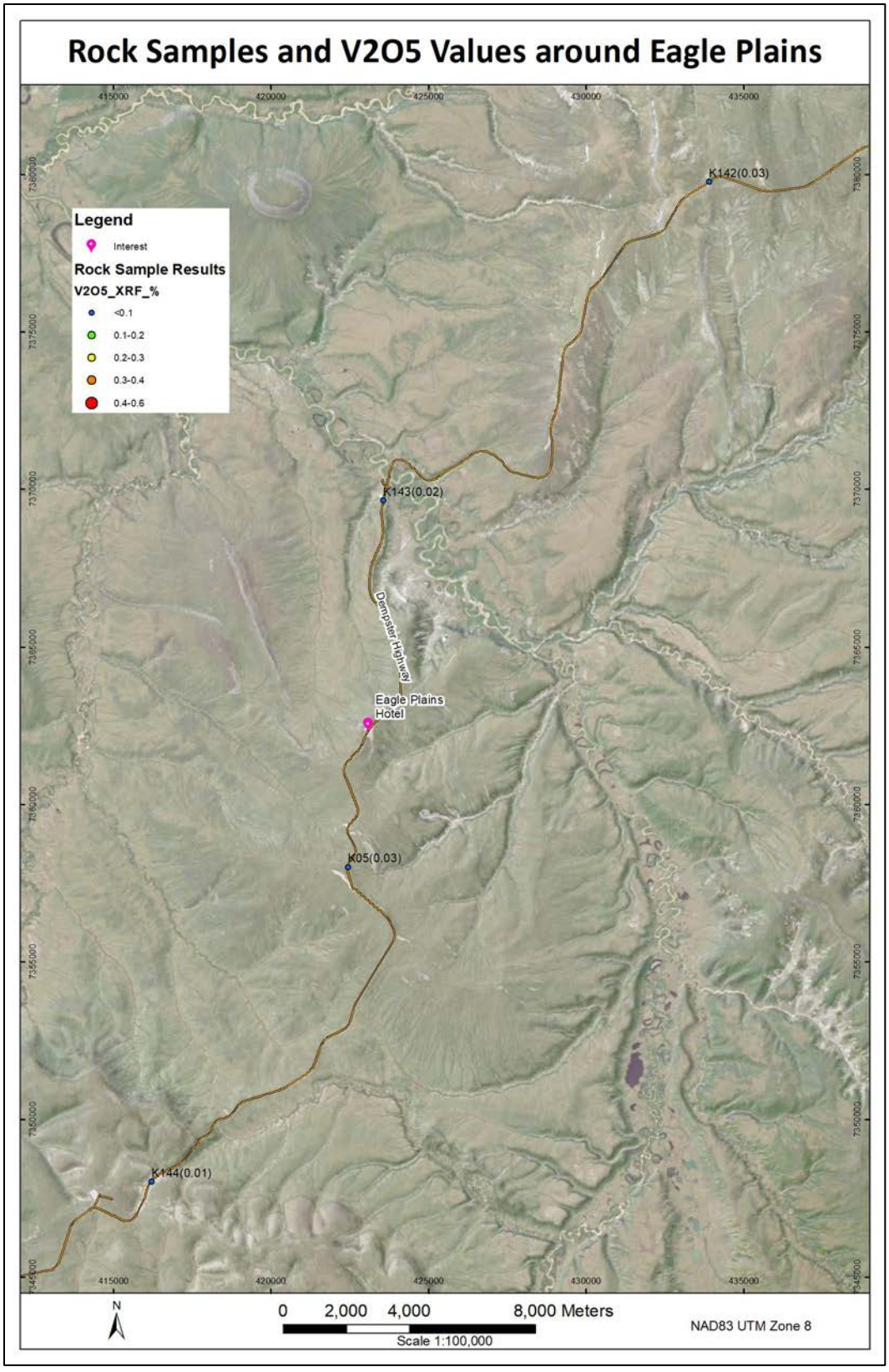

Figure 20. Rock Samples around Eagle Plains

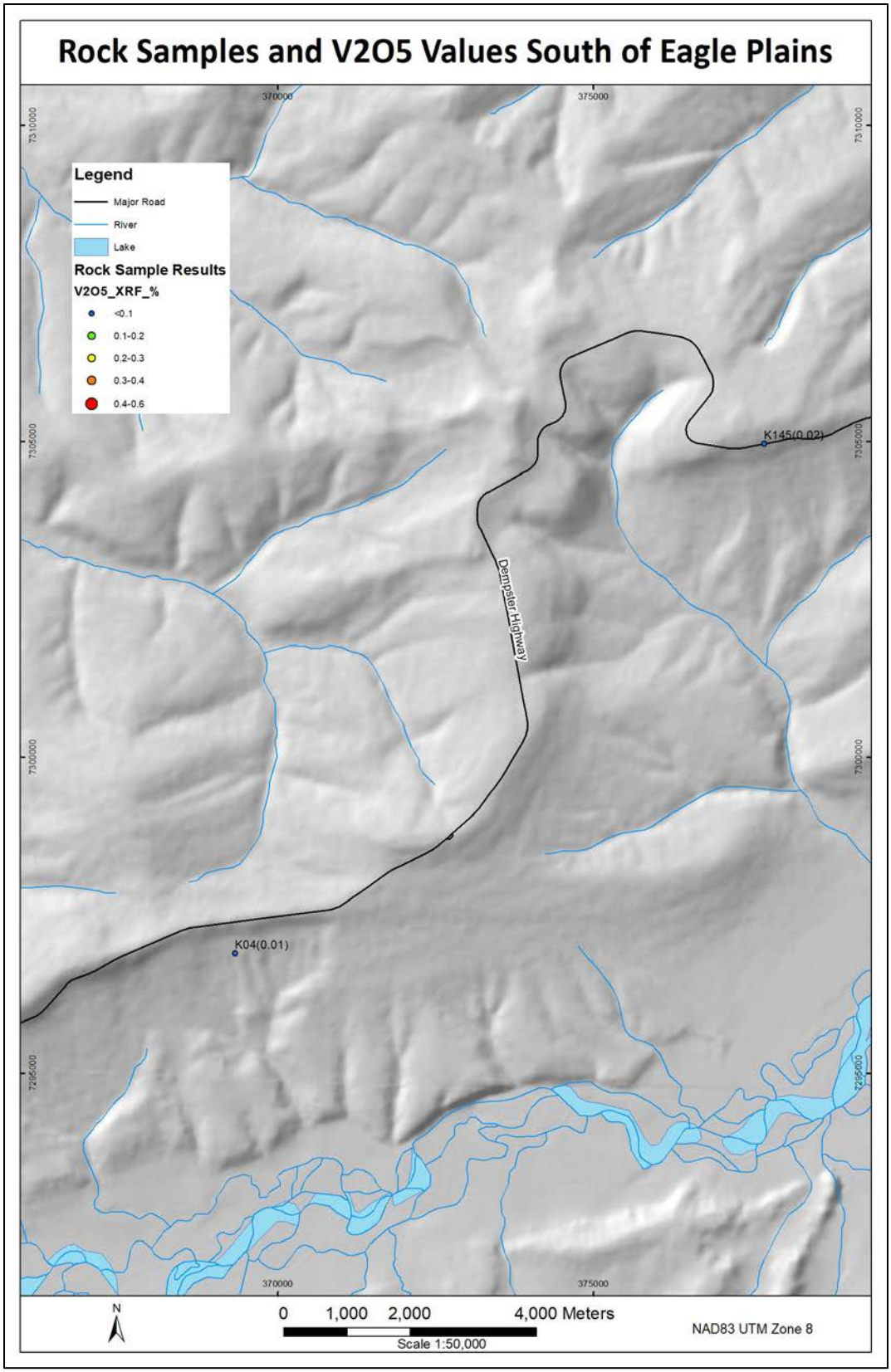

Figure 21. Rock Samples South of Eagle Plains

8.5 XRF Testing on Historic Drill Cores at Core Library

Cores from NiMo Sun and Fox properties were pulled out at the storage of the Bostock Core Library in Whitehorse. 57 boxes of drill core are available, of which the Fox property has 49 boxes and the Sun property only has 8 boxes. XRF testing was performed on each wood-blocked interval. XRF results are attached in Appendix VI.

In XRF testing, vanadium values of historic drill cores tend to be very inconsistent. Readings on the same piece of core but a few centimes away show vanadium values in a big difference. Six spot readings on the bedding plane returned V_2O_5 higher than 1%, but on the same piece of rock, spot reading on the core axis returned less than 0.1% V_2O_5. This sharp difference indicates high grade vanadium is located on beddings with softer rocks. Competent cherty units generally have much lower vanadium content. This also explains the reason that surface rock samples contain lower vanadium content than historic drill cores. Softer materials that are enriched in vanadium are more readily weathered away, making its vanadium values lower.

Five pieces of half core were collected from drill hole FX07-01. XRF readings gave quick vanadium values, one piece from BX2 returning the highest value at 1.95% V_2O_5 (Table 4). Half core samples from BX2 and BX4 were submitted for mineralogical studies.

Table 4. Core Samples collected at the Bostock Core Library

Hole ID	From_m	To_m	Length	Box No.	V_2O_5 % by XRF
FX07-01	3.3	3.37	0.07	BX1	0.28
FX07-01	9	9.08	0.08	BX2	1.95
FX07-01	18.6	18.65	0.05	BX3	0.10
FX07-01	26.7	26.75	0.05	BX4	0.34
FX07-01	31.5	31.56	0.06	BX5	0.11

8.6 Interpretation

Higher grade rock samples form a north trending linear structure, but due to its relative softness of organic rich cherty shale, they are found in a low land valley, covered by vegetations. Two high grade zones were defined by surface rock sampling on northern and southern parts of the property (Figure 22).

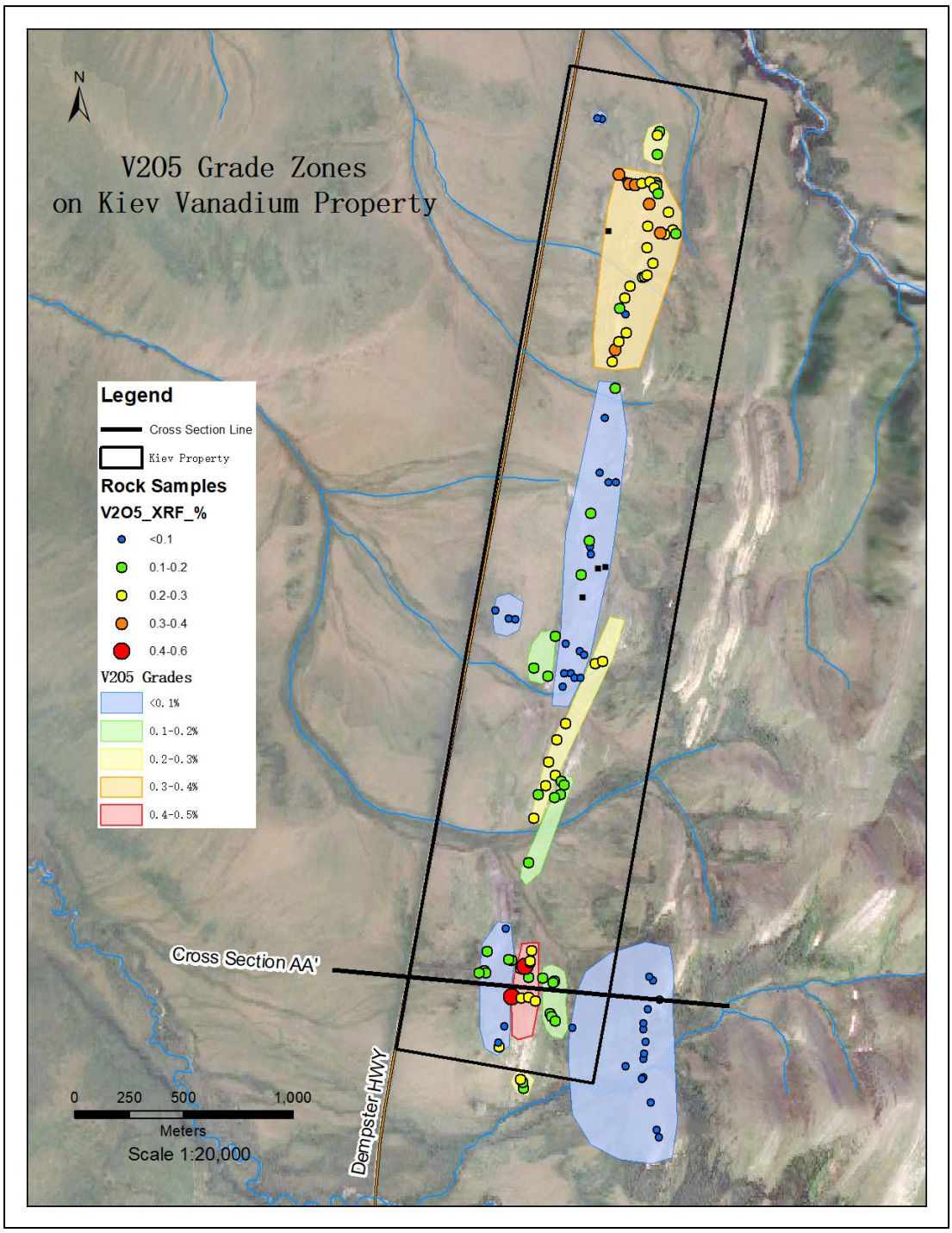

Figure 22. V_2O_5 Grade Zones

The averaged XRF spot values of 50 rock samples are 0.25% V_2O_5, about 25% lower than composited pulp values at Bureau Veritas (0.32%).

The vanadium enriched organic rich cherty shale unit forms a north trending core, about 40-200 meters wide, fringed by vanadium poor cherty unit on both sides, as illustrated in Figure 23.

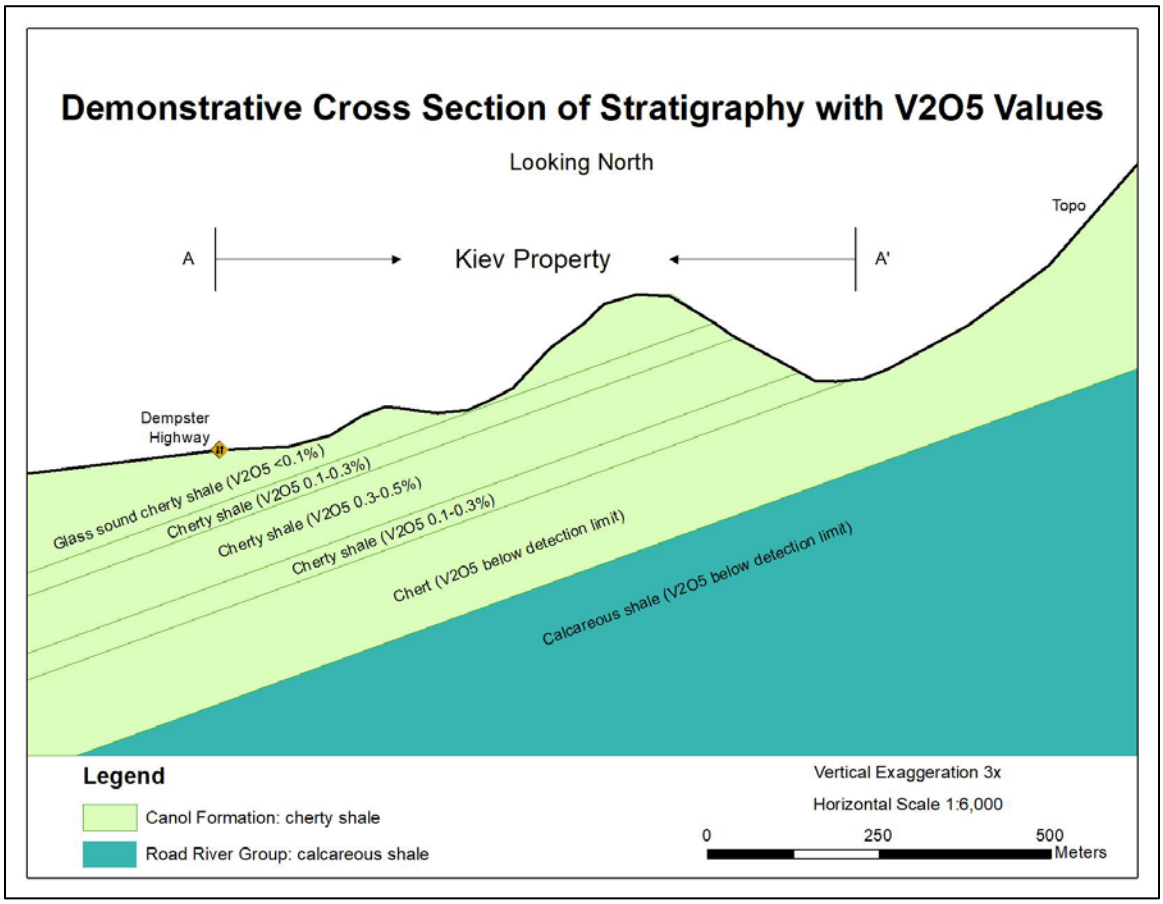

Figure 23. Demonstrative Cross Section of Stratigraphy and V_2O_5 Values

9 METALLURGY

Owing to the positive results from prospecting in August, preliminary metallurgical testwork was commissioned. Acid leaching test and mineralogical studies were undertaken by Bureau Veritas during the period of Nov 2019 to Mar 2020.

9.1 Composite

50 surface rock samples were submitted to Bureau Veritas for preliminary acid leaching test. They have V2O2 values from 0.14-0.55% and are weighed at about 7-8 kg. These samples were combined into one composite sample, crushed, and pulverized to 80% passing 42 microns. The composite was assayed at 0.32% V_2O_5.

9.2 Mineralogy

Three samples were submitted for mineralogy studies, two samples (BX2 and BX4) from historic drill core (Table 4) and one sample from the composite of surface rock samples. Assays are shown in Table 5.

The composite represents rocks that are exposed on surface. BX2 was taken from drillhole FX07-01 at 9 meters down the hole. BX4 was taken from drillhole FX07-01 at 26.5 from the collar. Each sample represent a distinct oxidation state.

Table 5. Mineralogy Sample Assays

Sample ID	Al2O3	CaO	Fe2O3	MgO	SiO2	V2O5_%	ZnO
Composite	3.99	1.4	1.18	0.36	84.35	0.321	0.063
BX2	2.48	3.11	1.21	0.29	79.92	0.346	0.483
BX4	2.85	1.92	1.14	0.32	82.02	0.472	0.404

The Vanadium element of the composite is hosted in goethite, paramonoseite, alunite, muscovite, and tivanite in a decreasing order (Figure 24). In contrast, BX4 from greater depth has vanadium in alunite, tivanite, paramonoseite, muscovite and goethite in a decreasing order. Both BX2 and BX4 contain minor amount of vanadium in goethite, indicating a more reduced environment.

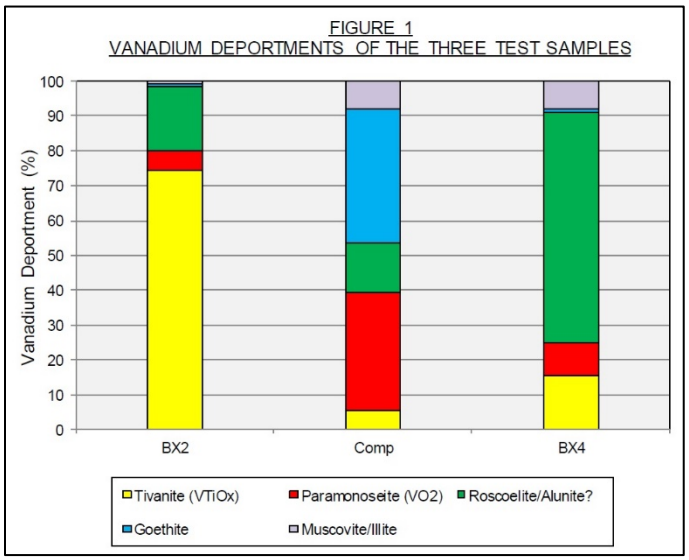

Figure 24. Vanadium Deportments

Organic matters are in similar amount in BX2 and BX4 at 7.36% and 6.07% respectively (Figure 25). The composite contains lesser amounts of organics at 3.32%, reflecting an oxidized situation.

TABLE 1
CHEMICAL AND MINERAL COMPOSITIONS OF THE THREE TEST SAMPLES

Minerals	BX2	Composite	BX4	Minerals	BX2	Composite	BX4
Cu Sulphides	0.03	<0.01	<0.01	Quartz	79.4	83.6	81.0
Galena	<0.01	<0.01	0.01	K-Feldspar	4.93	7.05	4.44
Sphalerite	1.05	<0.01	0.83	Wollastonite	2.88	0.26	2.43
Pyrite	0.27	0.04	1.37	Plagioclase Feldspar	0.47	0.99	0.82
Tivanite (VTiOx)	0.41	0.01	0.02	Muscovite/Illite	0.44	1.11	0.61
Paramonoseite (VO2	0.01	0.03	<0.01	Calcite	1.44	1.35	1.18
Roscoelite/Alunite?	0.22	0.09	0.27	Pyroxene/Amphibole	0.26	0.09	0.31
Iron Oxides/Iron Meta	0.14	1.59	0.13	Apatite	0.20	0.13	0.09
				Organic Carbon/Graphit	7.36	3.32	6.07
				Others	0.47	0.33	0.46
Total	2.13	1.75	2.64	Total	97.9	98.2	97.4

Figure 25. Chemical and Mineral Composition

9.3 Preliminary Leaching Test

Acid leaching tests were done in three episodes: 1) L1 in November 2019, 2) L2&L3 in December 2019, 3) L4&L5 in February 2020. The material for leaching test is exclusively from the composite of 50 surface rocks.

Leaching conditions are summarized in Table 6. The best leaching recovery is achieved at 86.4% from L1 test by using 1:3 sulphuric acid at 90°C for 2 hours.

Table 6. Acid Leaching Conditions

Test ID	Temperature °C	H2SO4 dosage kg/t	Acid Con %	solids %	Duration hour	V Extraction %	Fe Extraction %
L1	90	1000	33	23	2	86.4	93.7
L2	60	100	3.1	23	6	7.6	28.6
L3	90	100	3.1	23	6	11.9	50.8
L4	90	150	10	40	4	21.2	73
L5	90	300	20	40	4	45.7	77.3

Vanadium extraction rate is proportional to acid concentration (Figure 26). Higher vanadium extraction ratios has greener colors in leachate (Figure 27 & Figure 29), while low vanadium extraction ratios have more yellowish colors (Figure 28).

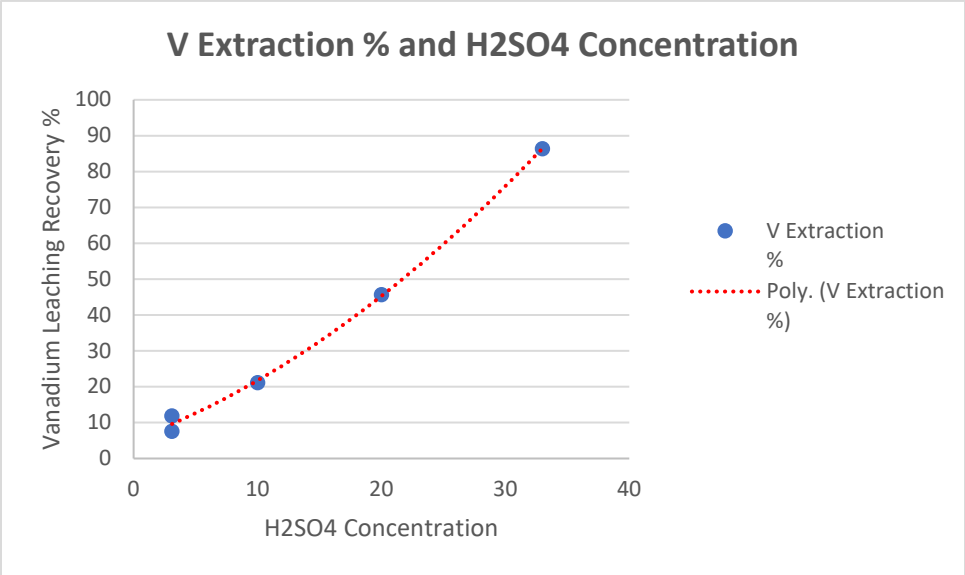

Figure 26. Vanadium Extraction Rate and Acid Concentration

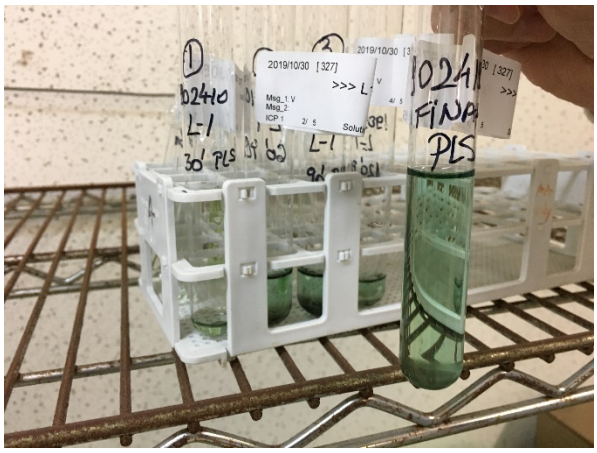

Figure 27. L1 leachate Color

Figure 28. L2 & L3 leachate Color

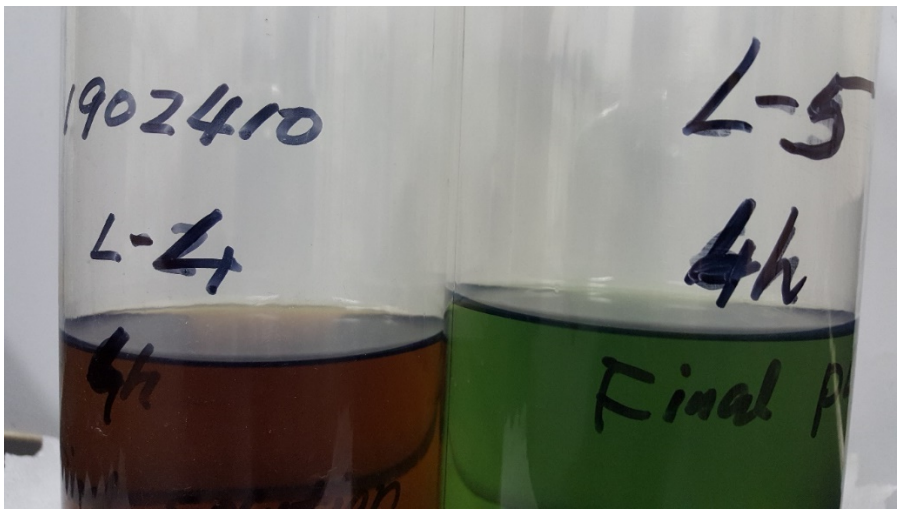

Figure 29. L4 & L5 Leachate Color

10 CONCLUSION & RECOMMENDATION

Regional prospecting program generated a narrowed focus for next phase of exploration. 20 mineral claims were subsequently staked. Rock sampling program is successful in identifying the vanadium mineralization on surface. Mineralogy studies suggest vanadium is hosted in oxides and aluminum silicates. Preliminary acid leaching tests returned the best extraction rate of 86.4% by using high concentration of sulphuric acid at 90°C over 2 hours.

Rock sampling on property located two high grade vanadium zones in a north trending direction. The zones are 40-200 meters wide, dip shallowly west at 20 degrees, and may contain V_2O_5 at 0.3-0.5%.

It is recommended to conduct more exploration work to identify the vanadium mineralization below the surface and to the south of the property. Metallurgical work should be aimed to improve the extraction rate by using lower acid concentration with the help from reagent.

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Whitney, G. (1986). Vanadium Chlorite from a Sandstone-Hosted Vanadium-Uranium Deposit, Henry Basin, Utah. *Clays and Clay Minerals, Vol. 34*, P 488-495.

STATEMENT OF QUALIFICATION

I, Tao Song, submit the following information to support my competence that is required to carry out the field work and prepare for the assessment report on the Kamatash project.

Education

- Bachelor of Computer Engineering degree, specialized in database, Yanshan University, China, 2005
- Bachelor of Science degree in Geology, University of British Columbia, 2010

Experience

- 4 years of experience as a company geologist with Merit Mining, Vancouver
  - Resource modeling
  - Drill ready exploration projects and grassroot programs in Canada
  - Project evaluation from early stage to producing (Au, Cu, Pb, Zn)
  - Development of a global mining and geology database

- 3 years of experience as a consulting geologist, Vancouver
  - Drill program supervision
  - Regional targeting
  - Project evaluation
  - Resource evaluation

Professional Affiliations

- Geoscientist in Training with the Association of Professional Engineers and Geoscientists of the Province of British Columbia, Canada, System ID 164368, since February 2011.
- Member of AME BC
- Member of PDAC

APPENDIX I - ELIGIBLE EXPENSES

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal***	
Tao/ geologist	June 4-12, 2019	9	$400.00	$3,600.00	
Tao/ geologist	Aug 14-26, 2019	13	$400.00	$5,200.00	
Ryan/ helper	Aug 14-20, 2019	7	$250.00	$1,750.00	
				$10,550.00	**$10,550.00**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Report preparation	Tao	4.0	$400.00	$1,600.00	
				$1,600.00	**$1,600.00**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Rock	*ALS ME-MS 61*	34.0	$45.98	$1,563.30	
Soil	*ALS ME-MS 61*	6.0	$51.49	$308.93	
Rock	*ALS ME-MS 81 & ME-4ACD81*	1.0	$111.96	$111.96	
SEM		3.0	$525.00	$1,575.00	
Leaching test		5.0	$775.14	$3,875.68	
				$7,434.87	**$7,434.87**
Transportation		**No.**	**Rate**	**Subtotal**	
truck rental	June 4-12, 2019	1.00	$1,167.47	$1,167.47	
truck rental	Aug 14-26, 2019	1.00	$2,160.13	$2,160.13	
fuel	June 4-12, 2019	1.00	$386.59	$386.59	
fuel	Aug 14-26, 2019	1.00	$810.62	$810.62	
				$4,524.81	**$4,524.81**
Accommodation & Food	**Rates per day**				
Field expense		29.00	$100.00	$2,900.00	
				$2,900.00	**$2,900.00**
Equipment Rentals					
Drone	Aug 14-26, 2019	7.00	$50.00	$350.00	
XRF	Aug 14-26, 2019	1.00	$3,708.47	$3,708.47	
				$4,058.47	**$4,058.47**
TOTAL Eligible Expenditures					**$31,068.15**

APPENDIX II - SAMPLE DESCRIPTION OF INITIAL REGIONAL PROSPECTING JUN 4-12, 2019

Sample Name	Easting	Northig	RL_m	SampleID	Type	Outcrop	Litho	Color	Slope	Carbonate	Silica	Carbon	V2O5_pct
S01	444417	7425024	598	A0024551	Rock	Float	oil shale?	deep black	gentle	no	mod	more	0.25
S02	444514	7424935	601	A0024552	Rock	Outcrop	oil shale?	black	cliff	yes	mod	more	0.29
S03	442060	7424202	550	A0024553	Rock	Outcrop	shaly chert	dark grey	flat	no	more	less	0.04
S04	441229	7414242	653	A0024554	Rock	Subcrop	shaly chert	dark grey	mod	no	more	less	0.02
S05	441195	7414908	673	A0024555	Rock	Subcrop	chert	black	mod	no	more	less	0.02
S06	441239	7412177	642	A0024556	Rock	Subcrop	shaly chert	black	mod	no	more	less	0.13
S07	441261	7412382	637	A0024557	Rock	Subcrop	chert	black	mod	no	more	less	0.03
S08	441261	7412282	641	A0024558	Rock	Subcrop	chert	black	mod	no	more	less	0.05
S09	441206	7412186	653	A0024559	Rock	Subcrop	shaly chert	black	mod	no	mod	more	0.13
S10	441188	7414796	662	A0024560	Rock	Subcrop	shaly chert	black	mod	no	mod	more	0.19
S11	441222	7414484	642	A0024561	Rock	Subcrop	shaly chert	black	mod	no	mod	more	0.13
S12	441231	7414360	634	A0024562	Rock	Subcrop	oil shale	deep black	mod	no	less	more	0.05
S13	441222	7413354	660	A0024563	Rock	Outcrop	oil shale	deep black	mod	no	less	more	0.12
S14	441228	7413439	661	A0024564	Rock	Outcrop	shaly chert	dark grey	cliff	no	more	less	0.18
S15	441106	7410312	560	A0024565	Rock	Float	chert	dark grey	flat	no	more	less	0.07
S16	441535	7407838	660	A0024566	Rock	Subcrop	shaly chert	dark grey	flat	no	more	less	0.36
S17	441353	7407821	650	A0024567	Rock	Subcrop	shaly chert	dark grey	flat	no	more	less	0.35
S18	440789	7404431	694	A0024568	Rock	Outcrop	oil shale	deep black	mod	no	less	more	0.1
S19	440795	7404429	696	A0024569	Soil	NA	NA	deep black	mod	no	less	more	0.08
S20	440807	7400360	666	A0024570	Rock	Outcrop	oil shale	deep black	steep	no	less	more	0.13
S21	440803	7400359	667	A0024571	Soil	NA	NA	dark black	steep	no	less	more	0.07
S22	441656	7394762	680	A0024572	Soil	NA	NA	deep black	steep	no	less	more	0.13
S23	441637	7394739	678	A0024573	Rock	Outcrop	chert	dark grey	steep	no	more	less	0.07
S24	442561	7390291	680	A0024574	Rock	Outcrop	chert	dark grey	mod	no	more	less	0.16
S25	442571	7390283	701	A0024575	Rock	Float	shaly chert	black	flat	no	more	less	0.11
S26	442552	7390294	703	A0024576	Rock	Outcrop	shaly chert	black	steep	no	more	less	0.19
S27	444549	7424870	609	A0024577	Rock	Outcrop	oil shale	black	cliff	no	less	more	0.2

S28	447148	7428867	726	A0024578	Rock	Subcrop	cherty shale	dark grey	flat	no	not much	not much	0.04
S29	447258	7429883	741	A0024579	Rock	Outcrop	cherty shale	dark grey	steep	no	not much	not much	0.04
S30	447213	7432915	737	A0024580	Rock	Subcrop	cherty shale	dark grey	gentle	no	not much	not much	0.02
S31	447408	7436915	907	A0024581	Rock	Float	oil shale?	dark black	flat	no	less	more	0.25
S32	447219	7436165	851	A0024582	Rock	Subcrop	oil shale?	dark grey-black	gentle	no	less	not much	0.03
S33	441652	7418021	600	A0024583	Rock	Outcrop	oil shale	deep black	steep	no	less	more	0.24
S34	442648	7390255	706	A0024584	Soil	NA	NA	black	steep	no	less	more	0.16
S35	442685	7390266	717	A0024585	Rock	Subcrop	oil shale?	black	mod	no	less	not much	0.16
S36	442562	7390326	709	A0024586	Soil	NA	NA	black	flat	no	less	more	0.03
S37	442562	7390256	701	A0024587	Rock	Float	oil shale?	black	flat	no	less	more	0.16
S38	441306	7406277	701	A0024588	Rock	Subcrop	shaly chert	dark grey	steep	no	more	less	0.04
S39	441342	7406285	691	A0024589	Soil	NA	NA	black	flat	no	less	more	0.14
S40	441237	7406146	712	A0024590	Rock	Subcrop	oil shale?	black	flat	no	not much	not much	0.12

APPENDIX III - ASSAY CERTIFICATE OF INITIAL REGIONAL PROSPECTING JUN 4-12, 2019

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 21-JUN-2019
Account: AKGEXP

CERTIFICATE WH19142408

Project: Kiev

This report is for 34 Rock samples submitted to our lab in Whitehorse, YT, Canada on 12-JUN-2019.

The following have access to data associated with this certificate:

TAO SONG

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
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME-MS61	48 element four acid ICP-MS

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142408

Sample Description	Method	WEI-21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOD	0.02	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01
A0024551		0.61	0.92	2.60	25.6	1490	1.51	0.10	2.23	12.90	27.0	3.5	72	2.57	54.2	1.08
A0024552		0.49	1.24	2.57	38.1	4460	1.66	0.12	4.10	24.3	31.4	4.8	78	2.71	66.0	1.20
A0024553		0.74	0.12	1.10	2.7	2440	0.77	0.05	0.04	0.19	2.15	0.2	17	1.36	12.3	0.36
A0024554		0.53	0.09	0.71	5.4	1480	0.47	0.02	0.02	0.31	3.67	0.4	24	1.02	12.5	0.66
A0024555		0.56	0.08	0.70	4.5	1200	0.47	0.03	0.01	0.12	3.93	0.3	34	1.00	6.9	0.55
A0024556		0.22	0.29	1.73	12.3	2420	1.07	0.07	0.02	0.31	5.42	0.3	36	2.35	20.7	0.52
A0024557		0.55	0.09	0.68	4.1	1290	0.43	0.02	0.01	0.10	3.59	0.3	44	1.10	7.0	0.57
A0024558		0.29	0.13	0.76	3.8	1420	0.51	0.04	0.01	0.28	4.23	0.3	38	1.16	8.6	0.56
A0024559		0.30	0.35	2.00	6.3	2880	1.39	0.09	0.01	0.65	20.6	0.2	36	2.56	20.7	0.49
A0024560		0.33	0.25	2.03	9.8	3290	1.06	0.05	0.02	0.23	38.8	0.2	39	2.56	21.8	0.45
A0024561		0.38	0.15	1.26	4.0	1970	0.73	0.04	0.02	0.16	23.2	0.2	33	1.60	14.7	0.44
A0024562		0.39	0.21	1.76	4.2	3860	1.14	0.07	0.03	0.66	5.72	0.3	31	2.79	30.4	0.44
A0024563		0.32	0.37	1.36	1.8	1960	0.85	0.07	0.01	0.09	18.30	0.2	27	1.93	22.5	0.30
A0024564		0.44	0.58	1.72	7.4	2300	0.94	0.05	0.01	0.19	11.10	0.2	41	2.58	27.9	0.43
A0024565		0.72	0.16	1.21	4.5	1850	0.76	0.05	0.03	0.17	11.30	0.3	29	1.81	12.8	0.53
A0024566		0.41	1.91	1.92	17.9	2850	1.24	0.09	0.04	8.71	31.5	0.5	78	2.06	90.1	0.60
A0024567		0.39	1.42	1.43	63.3	2280	1.09	0.06	0.23	23.0	22.0	3.0	93	2.00	80.6	1.77
A0024568		0.46	0.24	1.80	2.6	2350	1.02	0.06	0.01	0.19	12.30	0.2	30	2.47	50.3	0.29
A0024570		0.58	0.54	2.34	2.4	1800	1.10	0.08	0.09	0.17	18.95	0.3	48	3.20	80.8	0.90
A0024573		0.88	0.18	0.86	4.7	780	0.61	0.04	0.01	0.23	8.04	0.3	36	0.99	50.2	0.55
A0024574		0.93	0.41	1.95	4.3	1590	0.84	0.06	0.02	0.06	16.75	0.2	44	2.14	14.0	0.35
A0024575		0.28	0.24	1.78	3.3	1590	0.98	0.05	0.02	0.07	14.65	0.3	36	1.97	6.9	0.28
A0024576		0.58	0.35	2.65	4.5	1890	1.29	0.10	0.01	0.03	19.10	0.2	41	3.20	16.6	0.26
A0024577		0.63	0.71	1.80	22.0	100	1.14	0.08	5.96	88.4	19.90	6.1	54	1.83	54.4	0.81
A0024578		0.32	0.14	7.80	17.4	1440	2.35	0.25	0.29	0.43	71.3	18.2	105	8.02	40.9	4.66
A0024579		0.93	0.12	8.05	13.1	780	2.15	0.26	0.99	0.17	71.8	21.7	110	7.59	37.3	5.03
A0024580		0.69	0.08	6.29	7.1	580	1.52	0.12	0.83	0.07	71.5	11.6	68	3.48	12.3	2.97
A0024581		0.45	0.81	2.14	15.2	1280	1.52	0.08	0.02	0.20	26.6	0.9	61	2.71	17.3	0.62
A0024582		0.61	0.07	8.72	8.9	540	2.09	0.24	0.25	0.09	76.3	14.7	96	5.99	24.9	4.82
A0024583		0.68	1.14	2.82	16.2	2510	1.33	0.09	0.01	1.14	11.25	0.3	65	4.39	42.4	0.58
A0024585		0.58	0.29	5.50	10.4	2040	1.96	0.14	0.14	3.66	37.0	2.2	72	6.84	18.3	0.75
A0024587		0.39	1.45	2.15	14.6	2170	0.99	0.08	0.05	0.82	21.8	0.4	50	2.65	56.7	0.55
A0024588		0.61	0.18	0.78	4.0	1140	0.48	0.04	0.01	0.26	6.28	0.4	34	1.05	56.2	0.44
A0024590		0.21	0.35	1.39	6.2	1800	0.82	0.06	0.12	0.54	9.06	0.3	36	1.70	96.1	0.46

***** See Appendix Page for comments regarding this certificate *****

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142408

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Ca	Ce	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOD	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10	0.5
A0024551		7.22	0.12	1.3	0.021	1.08	17.5	8.4	0.68	61	76.6	0.08	6.7	219	220	8.6
A0024552		7.97	0.16	1.2	0.030	1.01	21.3	9.5	0.95	92	85.9	0.09	5.7	287	300	10.7
A0024553		3.00	<0.05	0.5	0.007	0.36	1.2	2.9	0.10	30	6.88	0.02	2.2	22.4	30	4.5
A0024554		1.70	0.05	0.3	0.007	0.21	2.2	3.8	0.04	54	21.4	0.03	1.5	19.5	130	1.6
A0024555		1.74	<0.05	0.4	<0.005	0.22	2.4	4.8	0.04	45	23.0	0.03	1.6	17.6	30	2.2
A0024556		5.15	0.05	0.6	0.014	0.58	3.8	3.8	0.11	34	16.40	0.03	3.0	19.8	90	5.1
A0024557		1.69	<0.05	0.3	<0.005	0.20	2.2	2.7	0.04	48	16.20	0.03	1.3	15.5	40	2.1
A0024558		2.10	<0.05	0.4	0.007	0.25	3.1	3.3	0.05	50	15.05	0.03	1.6	20.9	40	2.5
A0024559		5.55	0.06	0.6	0.013	0.67	15.9	4.1	0.13	20	21.5	0.03	3.2	19.7	70	5.9
A0024560		6.49	0.08	0.6	0.012	0.64	22.4	3.6	0.14	24	26.2	0.03	2.9	15.3	70	6.0
A0024561		3.76	0.08	0.4	0.010	0.40	13.1	3.1	0.08	28	12.95	0.02	2.0	16.5	90	3.2
A0024562		5.03	0.05	0.6	0.011	0.67	4.0	3.6	0.10	23	15.35	0.03	3.2	38.5	60	5.2
A0024563		4.36	0.06	0.5	0.017	0.47	9.9	3.3	0.09	22	19.20	0.02	2.4	31.0	50	6.2
A0024564		5.27	0.05	0.6	0.014	0.56	6.4	3.5	0.11	20	16.05	0.03	2.6	18.4	80	4.4
A0024565		3.19	0.06	0.4	0.006	0.39	7.7	3.7	0.08	31	20.2	0.03	2.0	18.8	70	3.0
A0024566		5.92	0.09	0.7	0.024	0.68	24.0	6.0	0.11	23	32.7	0.09	2.4	32.0	190	9.8
A0024567		5.10	0.08	0.6	0.020	0.50	22.6	3.9	0.11	76	61.3	0.02	2.1	112.5	480	7.9
A0024568		4.94	0.05	0.6	0.013	0.64	9.0	3.2	0.11	18	30.7	0.02	2.9	25.6	110	4.0
A0024570		6.57	0.06	0.8	0.013	0.78	12.7	8.1	0.16	21	13.85	0.03	3.9	40.7	80	3.7
A0024573		2.50	0.05	0.3	0.008	0.28	5.1	14.1	0.05	43	15.75	0.02	1.6	29.5	90	2.6
A0024574		5.44	0.05	0.6	0.013	0.67	11.1	15.0	0.13	21	14.85	0.02	2.8	20.8	90	4.2
A0024575		4.81	0.06	0.5	0.008	0.62	9.9	4.6	0.11	24	15.90	0.03	2.6	25.4	80	3.7
A0024576		7.26	0.06	0.9	0.011	0.92	12.7	4.2	0.17	14	17.45	0.03	4.1	23.1	90	5.0
A0024577		5.34	0.17	1.0	0.024	0.77	11.6	5.7	0.92	94	66.4	0.03	5.7	310	220	7.0
A0024578		19.90	0.14	2.9	0.084	2.24	35.0	65.5	1.06	220	1.25	0.67	13.9	61.3	1120	13.7
A0024579		20.2	0.11	3.0	0.081	2.28	35.4	72.5	1.50	937	0.95	0.73	14.4	58.7	1240	15.9
A0024580		14.65	0.10	2.8	0.045	1.75	34.3	48.8	0.93	222	0.47	1.29	13.8	28.7	610	12.4
A0024581		5.99	0.09	1.0	0.013	0.88	17.9	10.2	0.22	20	50.6	0.04	5.2	99.9	120	7.0
A0024582		21.1	0.11	2.8	0.079	2.23	36.2	89.9	0.80	211	0.70	0.89	16.2	42.3	670	17.3
A0024583		8.31	0.07	1.0	0.029	0.99	9.7	4.6	0.19	16	23.9	0.03	4.8	29.8	90	7.4
A0024585		14.90	0.07	1.8	0.032	1.87	23.0	8.6	0.42	25	12.00	0.05	8.8	34.3	120	9.1
A0024587		7.34	0.10	0.8	0.021	0.76	12.9	7.0	0.14	26	41.9	0.03	3.7	28.1	260	7.1
A0024588		2.03	0.08	0.3	0.008	0.24	3.8	3.8	0.05	34	19.65	0.02	1.5	23.5	30	3.7
A0024590		3.68	0.12	0.6	0.008	0.43	6.7	8.6	0.09	36	13.70	0.03	2.3	18.5	120	4.1

***** See Appendix Page for comments regarding this certificate *****

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142408

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOD	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1	1
A0024551		59.9	0.079	0.28	10.40	5.1	15	0.9	233	0.37	0.12	3.62	0.142	2.58	15.2	1390
A0024552		59.2	0.068	0.19	13.45	6.0	24	1.2	353	0.36	0.15	3.79	0.143	4.40	14.6	1620
A0024553		22.1	0.115	0.20	0.82	2.7	1	0.4	25.3	0.13	0.07	1.17	0.059	0.47	4.5	234
A0024554		11.1	0.026	0.16	1.64	1.7	6	0.2	75.9	0.09	0.06	0.80	0.035	0.93	6.6	138
A0024555		12.3	0.022	0.14	1.49	1.5	3	0.2	18.3	0.09	<0.05	0.82	0.041	0.49	3.5	139
A0024556		33.6	0.071	0.20	3.04	3.6	9	0.5	49.1	0.19	0.07	1.71	0.094	1.34	7.0	718
A0024557		11.5	0.025	0.12	1.54	1.3	3	0.2	28.8	0.07	<0.05	0.70	0.035	0.42	3.2	164
A0024558		14.5	0.041	0.13	2.88	1.4	2	0.4	34.0	0.10	0.05	0.89	0.045	0.43	2.9	279
A0024559		40.8	0.092	0.23	6.09	4.0	4	0.4	40.8	0.19	0.10	2.25	0.097	0.66	5.5	725
A0024560		41.1	0.050	0.23	6.27	4.2	4	0.6	30.0	0.17	0.08	2.30	0.094	0.73	5.3	1040
A0024561		24.2	0.059	0.18	3.23	2.7	9	0.4	29.6	0.12	0.06	1.40	0.062	0.58	5.6	711
A0024562		36.8	0.070	0.24	4.70	4.0	3	0.4	72.9	0.20	0.05	1.92	0.093	1.50	9.4	266
A0024563		27.8	0.059	0.15	6.65	3.2	4	0.4	25.4	0.15	0.08	2.05	0.074	1.43	7.0	673
A0024564		35.5	0.051	0.21	10.70	3.7	9	0.5	46.1	0.18	0.08	1.62	0.085	1.27	4.3	987
A0024565		23.2	0.033	0.17	2.43	2.6	11	0.4	32.2	0.12	0.05	1.37	0.058	0.77	4.4	397
A0024566		38.5	0.181	0.27	8.56	4.1	6	0.6	50.5	0.17	0.12	2.56	0.085	1.42	10.4	2040
A0024567		28.8	0.164	0.18	36.2	4.2	10	0.5	69.1	0.13	0.13	1.83	0.072	1.08	6.0	1940
A0024568		36.5	0.045	0.20	6.57	3.7	4	0.4	49.1	0.18	0.05	1.84	0.089	1.79	5.8	588
A0024570		46.1	0.043	0.19	8.35	4.8	4	0.7	32.4	0.23	0.16	2.22	0.116	1.45	24.7	751
A0024573		16.1	0.043	0.17	3.42	2.2	3	0.3	38.5	0.09	0.05	0.90	0.044	1.10	5.1	383
A0024574		39.5	0.046	0.19	13.80	3.8	6	0.6	36.9	0.19	0.09	1.97	0.096	1.44	4.8	922
A0024575		36.7	0.042	0.20	5.67	3.2	6	0.5	36.0	0.16	0.05	1.70	0.082	1.20	3.6	627
A0024576		55.1	0.040	0.26	13.55	4.7	6	0.8	34.6	0.25	0.07	2.47	0.129	1.52	4.3	1070
A0024577		42.5	0.046	2.14	7.66	5.2	9	0.9	358	0.22	0.08	2.52	0.102	2.76	17.9	1100
A0024578		120.0	0.003	0.06	0.80	18.4	2	2.2	113.5	0.83	0.12	8.60	0.466	0.58	2.6	222
A0024579		118.0	0.002	0.09	0.82	18.8	1	2.1	91.7	0.86	0.11	9.32	0.496	0.60	2.8	224
A0024580		75.7	<0.002	0.44	0.34	9.9	1	1.5	138.0	0.82	0.09	7.96	0.420	0.35	2.2	104
A0024581		51.1	0.064	0.29	4.56	3.2	7	0.9	32.3	0.32	0.11	3.15	0.125	1.87	14.9	1400
A0024582		107.0	0.003	0.02	0.45	16.5	1	2.1	113.0	0.99	0.16	10.60	0.501	0.48	2.3	154
A0024583		60.3	0.060	0.33	22.4	5.7	11	1.2	48.4	0.31	0.21	3.22	0.156	1.63	14.2	1330
A0024585		117.5	0.039	0.16	3.81	8.9	4	1.9	59.9	0.54	0.07	5.51	0.284	5.21	4.1	923
A0024587		44.1	0.057	0.26	17.70	4.7	18	0.8	103.0	0.24	0.17	2.74	0.119	2.36	11.0	874
A0024588		12.4	0.034	0.15	2.52	1.7	4	0.2	20.2	0.08	<0.05	0.86	0.040	0.64	6.4	241
A0024590		24.2	0.019	0.08	7.55	3.4	5	0.4	49.8	0.14	0.09	1.38	0.069	1.41	13.8	672

***** See Appendix Page for comments regarding this certificate *****

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142408

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm
	LOD	0.1	0.1	2	0.5
A0024551		0.8	25.3	763	63.8
A0024552		0.9	41.4	1540	62.7
A0024553		0.2	4.6	10	21.0
A0024554		0.2	4.2	10	15.7
A0024555		0.2	3.1	5	15.9
A0024556		0.3	6.0	25	30.8
A0024557		0.2	2.9	8	14.2
A0024558		0.2	5.5	26	17.1
A0024559		0.4	6.5	33	30.3
A0024560		0.4	6.8	7	28.6
A0024561		0.3	5.6	6	21.4
A0024562		0.4	7.9	66	31.0
A0024563		0.3	9.6	4	27.9
A0024564		0.3	6.2	6	26.9
A0024565		0.3	4.4	8	19.4
A0024566		0.4	25.4	122	30.9
A0024567		0.4	19.3	835	28.9
A0024568		0.5	5.3	6	28.4
A0024570		0.6	9.6	49	37.0
A0024573		0.2	7.2	9	25.6
A0024574		0.4	7.3	8	27.4
A0024575		0.4	6.1	11	25.7
A0024576		0.6	8.2	8	40.1
A0024577		0.6	34.2	2170	50.3
A0024578		1.4	23.8	175	119.5
A0024579		1.4	24.0	154	119.5
A0024580		1.1	19.5	88	114.5
A0024581		0.6	13.6	152	51.2
A0024582		1.3	18.6	115	109.5
A0024583		0.6	10.9	28	45.1
A0024585		0.9	11.8	212	66.5
A0024587		0.5	8.2	53	37.4
A0024588		0.2	3.8	12	15.0
A0024590		0.3	5.2	20	27.1

***** See Appendix Page for comments regarding this certificate *****

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142408

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REE's may not be totally soluble in this method.
ME-MS61

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

CRU-31	CRU-QC	LOG-21	PUL-31
PUL-QC	SPL-21	WEI-21	

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
ME-MS61

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To: AKG EXPLORATION INC
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Page: 1
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 21-JUN-2019
Account: AKGEXP

CERTIFICATE WH19142411

Project: Kiev

This report is for 6 Soil samples submitted to our lab in Whitehorse, YT, Canada on 12-JUN-2019.

The following have access to data associated with this certificate:

TAO SONG

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
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
ME-MS61	48 element four acid ICP-MS

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
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Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142411

Sample Description	Method	WEI-21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOD	0.02	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2	0.01
A0024569		0.40	1.66	2.65	25.1	260	1.72	0.21	0.04	0.29	33.2	0.4	43	3.53	120.5	1.44
A0024571		0.58	4.08	4.21	9.3	1440	2.34	0.39	0.09	0.30	50.2	0.5	71	5.70	199.0	0.64
A0024572		0.61	0.27	4.84	17.0	480	1.79	0.14	1.57	3.76	39.5	9.4	65	5.54	41.5	1.86
A0024584		0.78	0.30	5.13	33.7	2920	1.94	0.15	0.46	9.15	38.6	6.7	70	6.15	58.8	2.42
A0024586		0.43	0.71	1.87	20.9	390	1.16	0.13	0.14	1.29	21.2	0.3	27	2.00	89.1	2.04
A0024589		0.75	0.26	5.02	29.8	2410	1.92	0.13	0.20	1.95	45.0	5.4	65	6.64	42.5	3.10

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Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142411

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Ca	Ce	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb
	Units	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOD	0.05	0.05	0.1	0.005	0.01	0.5	0.2	0.01	5	0.05	0.01	0.1	0.2	10	0.5
A0024569		6.48	0.13	1.5	0.019	1.07	22.1	8.9	0.16	20	35.7	0.03	6.7	18.9	470	13.1
A0024571		10.75	0.19	2.2	0.032	1.47	34.2	10.2	0.29	18	14.05	0.04	8.5	32.8	140	33.5
A0024572		10.80	0.16	1.5	0.033	1.38	26.1	7.5	0.38	75	30.5	0.06	6.7	156.0	610	9.4
A0024584		12.15	0.15	1.5	0.044	1.69	24.1	12.9	0.48	89	36.8	0.06	6.7	153.0	370	10.7
A0024586		4.68	0.14	0.8	0.020	0.71	11.5	19.0	0.12	16	33.8	0.03	3.6	32.4	320	7.4
A0024589		11.90	0.13	1.5	0.045	1.52	29.3	8.8	0.36	61	40.0	0.07	7.2	124.5	330	9.2

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CERTIFICATE OF ANALYSIS WH19142411

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOD	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1	1
A0024569		51.5	0.094	0.67	58.7	6.7	9	0.7	116.0	0.38	0.26	4.20	0.167	6.41	15.5	443
A0024571		77.3	0.107	0.37	31.0	11.9	7	1.4	49.1	0.49	0.49	6.35	0.235	3.03	73.2	420
A0024572		80.3	0.030	1.11	6.37	8.5	6	1.3	136.0	0.42	0.08	5.07	0.235	3.08	5.4	747
A0024584		91.2	0.059	0.25	9.10	9.1	14	1.5	139.0	0.43	0.12	5.49	0.239	4.28	7.1	873
A0024586		36.2	0.120	0.35	11.65	4.7	21	0.5	127.5	0.19	0.13	2.20	0.105	4.05	8.4	177
A0024589		91.5	0.027	0.28	12.00	9.3	8	1.4	117.0	0.46	0.10	5.64	0.250	3.34	7.6	781

***** See Appendix Page for comments regarding this certificate *****

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Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142411

Sample Description	Method	ME-MS61	ME-MS61	ME-MS61	ME-MS61
	Analyte	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm
	LOD	0.1	0.1	2	0.5
A0024569		0.9	14.8	16	78.1
A0024571		2.1	21.9	49	111.0
A0024572		0.7	27.4	372	59.1
A0024584		0.8	18.8	794	58.9
A0024586		0.6	11.5	312	36.0
A0024589		0.8	17.3	513	59.2

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Finalized Date: 21-JUN-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS WH19142411

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

REE's may not be totally soluble in this method.
Applies to Method: ME-MS61

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:				
	CRU-31	CRU-QC	LOG-22	PUL-31
	PUL-QC	SPL-21	WEI-21	

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
Applies to Method: ME-MS61

APPENDIX IV - SAMPLE DESCRIPTION AND XRF RESULTS - EXPLORATION AUG 14-26, 2019

SampleID	Easting_UTM8	Northing_UTM8	Elev_m	SampleType	Bedrock Type	Color	Litho	V2O5_XRF_pct
K04	369329	7296894	521	Rock	Subcrop	dark grey	calcareous shale	0.01
K05	422439	7358022	722	Rock chips and soil	Subcrop	dark grey	shale	0.03
K06	440964	7403900	692	Rock	Subcrop	dark grey	shale	0.16
K07	440962	7403929	685	Rock	Subcrop	dark grey	shale	0.18
K08	440951	7403941	686	Rock	Subcrop	dark grey	shale	0.21
K09	440854	7404089	700	Rock	Subcrop	black	shale	0.21
K10	440849	7404111	704	Rock	Subcrop	black	cherty shale	0.06
K100	441515	7404172	750	Rock	Subcrop	black	cherty shale	0.02
K101	441514	7404199	752	Rock	Subcrop	black	cherty shale	0.04
K102	441534	7404263	764	Rock	Subcrop	black	cherty shale	0.02
K103	441587	7404307	782	Rock	Outcrop	black	chert	0.01
K104	441558	7404395	770	Rock	Subcrop	black	cherty shale	0.02
K105	441541	7404412	762	Rock	Subcrop	black	cherty shale	0.01
K106	441108	7404391	702	Rock	Float	black	cherty shale	0.12
K107	441101	7404385	704	Rock	Float	black	cherty shale	0.16
K108	441053	7404406	713	Rock	Float	black	cherty shale	0.14
K109	440988	7404410	718	Rock	Float	black	cherty shale	0.19
K11	440877	7404185	720	Rock	Subcrop	black	shale	0.04
K110	440912	7404487	715	Rock	Subcrop	black	cherty shale	0.19
K111	440896	7404491	711	Rock	Float	deep black	oil shale	0.12

K112	440896	7406050	643	Rock	Float	deep black	oil shale	0.07
K113	440928	7406048	646	Rock	Subcrop	deep black	oil shale	0.04
K114	441109	7405969	668	Rock	Float	deep black	shale	0.13
K115	441157	7405937	680	Rock	Outcrop	black	shale	0.09
K116	441223	7405904	679	Rock	Outcrop	black	cherty shale	0.02
K117	441242	7405885	678	Rock	Float	black	shale	0.04
K118	441295	7405844	676	Rock	Float	black	shale	0.25
K119	441327	7405856	677	Rock	Float	black	shale	0.29
K12	440951	7404448	719	Rock	Subcrop	black	shale	0.21
K120	440837	7406087	640	Rock	Float	black	cherty shale	0.09
K121	442629	7390212	696	Rock	Float	black	cherty shale	0.08
K122	442700	7390151	704	Rock	Subcrop	black	cherty shale	0.10
K123	442879	7390195	730	Rock	Subcrop	black	cherty shale	0.25
K124	443008	7390211	747	Rock	Subcrop	black	chert	0.05
K125	443012	7390202	746	Rock	Float	deep black	shale	0.09
K126	443038	7390198	746	Rock	Float	deep black	shale	0.04
K127	443057	7390192	739	Rock	Float	deep black	shale	0.03
K128	442547	7390268	688	Rock	Float	black	cherty shale	0.07
K129	441679	7394743	679	Rock	Float	black	shale	0.08
K13	440972	7404461	722	Rock	Subcrop	black	shale	0.55
K130	441681	7394744	679	Rock	Float	black	shale	0.03
K131	441729	7394743	676	Rock	Float	black	shale	0.06
K132	441707	7394743	678	Rock	Float	black	shale	0.05

K133	441680	7394752	681	Rock	Subcrop	black	oil shale	0.09
K134	440808	7400359	659	Rock	Outcrop	black	oil shale	0.15
K135	440810	7400358	660	Rock	Outcrop	black	oil shale	0.20
K136	440772	7404433	687	Rock	Outcrop	black	oil shale	0.12
K137	440779	7404440	690	Rock	Outcrop	black	cherty shale	0.08
K138	440784	7404439	690	Rock	Outcrop	black	cherty shale	0.18
K139	440791	7404430	687	Rock	Outcrop	black	oil shale	0.16
K14	440996	7404477	719	Rock	Subcrop	black	shale	0.24
K140	440768	7404432	686	Rock	Outcrop	black	cherty shale	0.07
K141	440763	7404428	687	Rock	Outcrop	black	cherty shale	0.17
K142	433897	7379768	678	Rock	Outcrop	black	shale	0.03
K143	423561	7369648	366	Rock	Outcrop	black	shale	0.02
K144	416203	7348018	669	Rock	Outcrop	black	shale	0.01
K145	377703	7304963	870	Rock	Outcrop	black	shale	0.02
K15	440995	7404483	718	Rock	Subcrop	black	shale	0.24
K16	441004	7404531	701	Rock	Subcrop	black	shale	0.29
K17	440800	7404527	710	Rock	Subcrop	black	shale	0.13
K18	440885	7404632	707	Rock	Subcrop	black	shale	0.06
K19	440988	7404935	665	Rock	Float	black	shale	0.15
K20	441011	7405136	667	Rock	Subcrop	black	shale	0.27
K21	441032	7405245	675	Rock	Subcrop	black	shale	0.19
K22	441068	7405286	678	Rock	Subcrop	black	shale	0.21
K23	441109	7405332	681	Rock	Subcrop	black	shale	0.27
K24	441139	7405305	682	Rock	Subcrop	black	shale	0.15
K25	441153	7405290	680	Rock	Subcrop	black	shale	0.17
K26	441134	7405244	675	Rock	Subcrop	black	shale	0.13
K27	441107	7405233	675	Rock	Subcrop	black	shale	0.14

K28	441081	7405395	684	Rock	Subcrop	black	shale	0.21
K29	441118	7405495	687	Rock	Subcrop	black	shale	0.29
K30	441159	7405571	674	Rock	Subcrop	black	shale	0.30
K31	441146	7405739	662	Rock	Subcrop	black	shale	0.08
K32	441152	7405801	662	Rock	Subcrop	black	shale	0.02
K33	441183	7405801	670	Rock	Subcrop	black	shale	0.02
K34	441198	7405780	665	Rock	Float	black	shale	0.06
K35	441227	7405780	665	Rock	Float	black	shale	0.03
K36	441076	7405786	660	Rock	Float	black	shale	0.12
K37	441012	7405825	650	Rock	Float	black	shale	0.12
K38	441230	7406252	689	Rock	Subcrop	black	shale	0.15
K39	441273	7406346	692	Rock	Subcrop	black	shale	0.05
K40	441269	7406380	688	Rock	Subcrop	black	shale	0.05
K41	441268	7406406	686	Rock	Subcrop	black	shale	0.10
K42	441273	7406532	662	Rock	Subcrop	black	shale	0.11
K43	441354	7406675	656	Rock	Float	black	shale	0.06
K44	441388	7406674	660	Rock	Subcrop	black	shale	0.09
K45	441315	7406718	653	Rock	Float	black	shale	0.07
K46	441336	7406970	644	Rock	Float	black	shale	0.06
K47	441385	7407106	646	Rock	Float	black	shale	0.13
K48	441370	7407226	652	Rock	Float	black	shale	0.22
K49	441384	7407282	662	Rock	Subcrop	black	shale	0.37
K50	441402	7407318	667	Rock	Subcrop	black	shale	0.29
K51	441436	7407357	669	Rock	Subcrop	black	shale	0.21
K52	441431	7407444	667	Rock	Subcrop	black	shale	0.10
K53	441404	7407472	668	Rock	Subcrop	black	shale	0.19
K54	441428	7407518	661	Rock	Subcrop	black	shale	0.28

K55	441454	7407571	650	Rock	Subcrop	black	shale	0.23
K56	441509	7407613	648	Rock	Subcrop	black	shale	0.14
K57	441521	7407615	649	Rock	Subcrop	black	shale	0.25
K58	441530	7407622	650	Rock	Subcrop	black	shale	0.22
K59	441557	7407676	656	Rock	Subcrop	black	shale	0.23
K60	441531	7407748	658	Rock	Subcrop	black	shale	0.24
K61	441533	7407848	655	Rock	Subcrop	black	shale	0.20
K62	441540	7407949	652	Rock	Subcrop	black	shale	0.40
K63	441571	7408042	647	Rock	Subcrop	black	shale	0.31
K64	441576	7408033	645	Rock	Subcrop	black	shale	0.17
K65	441587	7408280	616	Rock	Float	black	shale	0.19
K66	441578	7408263	617	Rock	Float	black	shale	0.21
K67	441577	7408175	628	Rock	Float	black	shale	0.17
K68	441435	7408053	647	Rock	Subcrop	black	shale	0.07
K69	441403	7408082	641	Rock	Subcrop	black	shale	0.38
K70	441448	7408041	650	Rock	Subcrop	black	cherty shale	0.38
K71	441478	7408035	653	Rock	Subcrop	dark grey	cherty shale	0.31
K72	441508	7408043	652	Rock	Subcrop	dark grey	cherty shale	0.22
K73	441545	7408049	650	Rock	Subcrop	black	shale	0.29
K74	441564	7408024	649	Rock	Subcrop	black	shale	0.26
K75	441581	7407995	644	Rock	Subcrop	black	shale	0.18
K76	441628	7407909	636	Rock	Float	deep black	shale	0.28
K77	441650	7407831	641	Rock	Float	deep black	shale	0.20
K78	441663	7407811	640	Rock	Float	deep black	shale	0.16

K79	441613	7407809	648	Rock	Float	deep black	shale	0.26
K80	441590	7407817	652	Rock	Float	deep black	shale	0.32
K81	441323	7408337	621	Rock	Subcrop	dark grey	cherty shale	0.03
K82	441303	7408342	622	Rock	Subcrop	dark grey	cherty shale	0.05
K83	440911	7404322	707	Rock	Subcrop	black	cherty shale	0.40
K84	440955	7404313	714	Rock	Subcrop	black	cherty shale	0.30
K85	440988	7404318	716	Rock	Subcrop	black	cherty shale	0.21
K86	441019	7404302	719	Rock	Subcrop	black	shale	0.29
K87	441088	7404243	723	Rock	Subcrop	black	shale	0.11
K88	441093	7404230	722	Rock	Subcrop	black	shale	0.12
K89	441110	7404208	716	Rock	Subcrop	black	shale	0.16
K90	441190	7404178	708	Rock	Float	black	shale	0.04
K91	441434	7404003	696	Rock	Float	black	cherty shale	0.02
K92	441513	7403953	701	Rock	Subcrop	black	cherty shale	0.02
K93	441507	7403945	707	Rock	Subcrop	black	cherty shale	0.01
K94	441548	7403838	757	Rock	Outcrop	black	cherty shale	0.01
K95	441573	7403710	798	Rock	Outcrop	black	cherty shale	0.02
K96	441584	7403678	792	Rock	Outcrop	black	cherty shale	0.01
K97	441515	7404037	707	Rock	Subcrop	black	cherty shale	0.01
K98	441518	7404061	715	Rock	Subcrop	black	cherty shale	0.02
K99	441525	7404114	732	Rock	Subcrop	black	cherty shale	0.03

APPENDIX V - ASSAY CERTIFICATE OF K04

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To: AKC EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 26-OCT-2019
This copy reported on
28-OCT-2019
Account: AKGEXP

CERTIFICATE VA19248758

Project: Kiev

This report is for 1 Rock sample submitted to our lab in Vancouver, BC, Canada on 3-OCT-2019.

The following have access to data associated with this certificate:

TAO SONG

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
ME-MS81	Lithium Borate Fusion ICP-MS	ICP-MS
TOT-ICP06	Total Calculation for ICP06	

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.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Saa Traxler, General Manager, North Vancouver

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Finalized Date: 26-OCT-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS VA19248758

Sample Description	Method	WEI-21	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	Recvd Wt.	Ba	Ce	Cr	Cs	Dy	Er	Eu	Ga	Gd	Hf	Ho	La	Lu	Nb
	Units	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOD	0.02	0.5	0.1	10	0.01	0.05	0.03	0.03	0.1	0.05	0.2	0.01	0.1	0.01	0.2
K04		0.56	531	6.5	20	0.34	0.55	0.30	0.15	1.2	0.64	0.4	0.12	4.3	0.04	1.0

***** See Appendix Page for comments regarding this certificate *****

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Project: Kiev

CERTIFICATE OF ANALYSIS VA19248758

Sample Description	Method / Analyte / Units / LOD	ME-MS81 Nd ppm 0.1	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.1	ME-MS81 Yb ppm 0.03
K04		3.4	0.89	4.9	0.80	<1	1940	0.1	0.08	1.13	0.06	1.78	33	1	4.1	0.29

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 26-OCT-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS VA19248758

Sample Description	Method	ME-MS61	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	ME-ICP06	OA-GRA05
	Analyte	Zr	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	Cr2O3	TiO2	MnO	P2O5	SrO	BaO	LOI
	Units	ppm	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	LOD	2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	0.01	0.01	0.01	0.01	0.01	0.01
K04		16	5.68	1.01	0.79	52.5	0.78	0.38	0.09	0.002	0.05	<0.01	0.12	0.23	0.06	40.2

***** See Appendix Page for comments regarding this certificate *****

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To: AKG EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Finalized Date: 26-OCT-2019
Account: AKGEXP

Project: Kiev

CERTIFICATE OF ANALYSIS VA19248758

Sample Description	Method	TOT-ICP06	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81
	Analyte	Total	Ag	As	Cd	Co	Cu	Li	Mo	Ni	Pb	Sc	Tl	Zn
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOD	0.01	0.5	5	0.5	1	1	10	1	1	2	1	10	2
K04		101.89	<0.5	<5	<0.5	<1	4	<10	1	15	<2	1	<10	17

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: AKC EXPLORATION INC
#1901 - 1188 WEST PENDER ST
VANCOUVER BC V6E 0A2

Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 26-OCT-2019
Account: AKCEXP

Project: Kiev

CERTIFICATE OF ANALYSIS VA19248758

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	CRU-31	LOG-22	ME-4ACD81	ME-ICP06
	ME-MS81	OA-GRA05	PUL-31	SPL-21
	TOT-ICP06	WEI-21		

APPENDIX VI - XRF RESULTS OF NIMO SUN AND FOX DRILL CORES

HoleID	From_m	V2O5_pct	Description
FX07-01	10	1.05	
FX07-01	14	1.39	
FX07-01	22	0.69	
FX07-01	29	1.53	
FX07-01	32	0.74	
FX07-02	15	0.12	soft flaky shale
FX07-02	18	0.13	
FX07-02	25.5	0.09	soft clayish shale
FX07-02	28	0.13	yellow staining
FX07-02	31	0.09	soft flaky shale
FX07-02	38.6	0.16	soft flaky shale
FX07-02	45.7	0.38	hard
FX07-02	47	0.52	soft flaky shale
FX07-02	48.5	0.22	has a label "Canol Litho 6"
FX07-02	54	0.04	
FX07-02	58.5	0.18	
FX07-02	72.5	0.29	
FX07-02	80	0.18	
FX07-02	84	0.20	
FX07-02	88	0.15	
FX07-02	105	0.29	
FX07-03	16	0.06	medium grey
FX07-03	20	0.02	almost vanadium zone, black to dark grey
FX07-03	22	0.29	black
FX07-03	29	1.04	
FX07-03	36	0.68	
FX07-03	40	1.58	
FX07-03	46.5	0.09	
FX07-03	49	1.28	
FX07-03	55	0.09	
FX07-03	60	0.33	
FX07-03	64	0.24	
FX07-03	70	0.19	
FX07-03	75	0.25	
FX07-03	78.53	0.47	
FX07-03	87	0.38	

FX07-03	91.8	0.29	
FX07-03	96.3	0.36	
FX07-03	105	0.11	
FX07-03	111	0.20	
FX07-03	113.6	0.24	
FX07-03	121	0.04	
FX07-03	125	0.14	Ca 7.8%
FX07-03	128	0.11	Ca 7.36%
FX07-03	137	0.26	
FX07-03	186	0.09	
FX07-04	31	0.46	
FX07-04	59	0.23	
FX07-04	66	0.20	
SN07-01	62.63	0.24	assay is 2500, some narrow qtz vein (2 phases)
SN07-01	64	0.28	
SN07-01	97.5	0.13	
SN07-03	81.48	0.18	
SN07-03	82.93	0.03	f.g. py minor amount
SN07-03	98	0.14	
SN07-03	99.64	0.12	
SN07-03	104.82	0.11	

APPENDIX VII - MINERALOGY REPORT BY BUREAU VERITAS

BV Minerals - Metallurgical Division
Bureau Veritas Commodities Canada Ltd.
11620 Horseshoe Way,
Richmond, BC V7A 4V5 Canada
Tel: +1(604) 272-8110 Fax: +1(604) 272-0851
Email: wendy.ma@ca.bureauveritas.com

February 13, 2020

Mr. Tao Song
#1901-1188 West Pender Street,
Vancouver BC, Canada
V6E 0A2

Re: Mineralogical Assessment of the Three Test Samples
Project No. MM1900410

Dear Mr. Song,

We have completed the mineralogical assessment on the three test samples that you provided. These three test samples, labeled as BX2, BX4 and Composite, were representative of the feeds of the ongoing metallurgical tests at BV Minerals – Metallurgical Division.

The principal objective of this study was to identify and quantify the mineral abundances of the provided test samples. To achieve the program, the standard chemical analysis and QEMSCAN Bulk Mineral Analysis (BMA) protocols were conducted on each of the unsized test samples as received. All the information produced by this study are shown in three appendices attached at the end of this letter:

Appendix I – Sample Origin and Methodology;
Appendix II – QEMSCAN Particle Mineral Analysis (PMA) Data.

The data, in terms of the mineral composition and vanadium deportments* by the bearing minerals, of the three test samples are summarized in Table 1 and Figure 1 on the following page of this letter.

Thank you for inviting BV Minerals – Metallurgical Division to participate in this mineralogical testing program. If you have any questions regarding this study or our assessment of the data, please do not hesitate to contact us.

Kind regards,

Wendy Ma, M.Sc. P. Geo.
Mineralogy Manager

* The concentrations of vanadium in goethite and muscovite was based on the spectra data generated from EDS detectors. To achieve the accurate vanadium concentrations in these minerals, the microprobe analysis will be required.

MINERALOGICAL ASSESSMENTS OF THREE TEST SAMPLES

APPENDIX I

SAMPLE ORIGIN AND METHDOLOGY

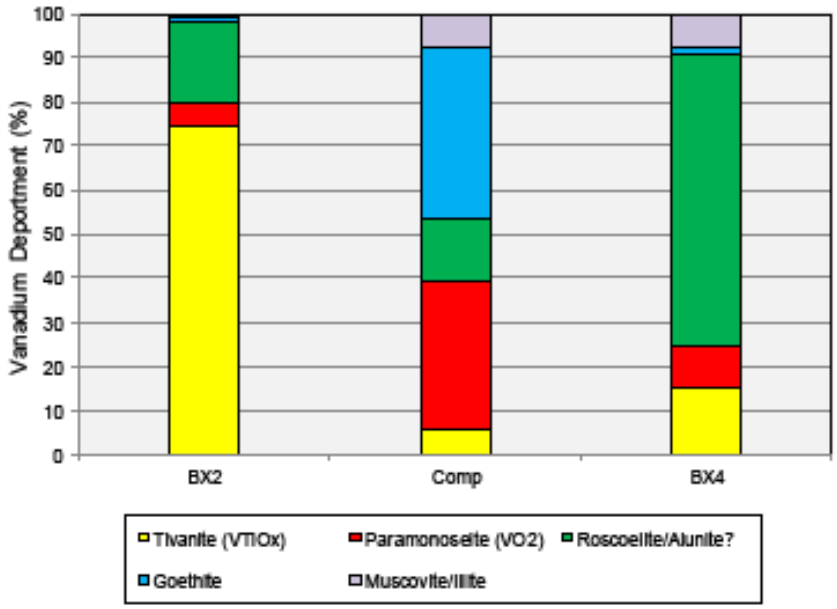
FEBRUARY 13, 2020

TABLE 1
CHEMICAL AND MINERAL COMPOSITIONS OF THE THREE TEST SAMPLES

Minerals	BX2	Composite	BX4	Minerals	BX2	Composite	BX4
Cu Sulphides	0.03	<0.01	<0.01	Quartz	79.4	83.6	81.0
Galena	<0.01	<0.01	0.01	K-Feldspar	4.93	7.05	4.44
Sphalerite	1.05	<0.01	0.83	Wollastonite	2.88	0.26	2.43
Pyrite	0.27	0.04	1.37	Plagioclase Feldspar	0.47	0.99	0.82
Tivanite (VTiOx)	0.41	0.01	0.02	Muscovite/Illite	0.44	1.11	0.61
Paramonoseite (VO2	0.01	0.03	<0.01	Calcite	1.44	1.35	1.18
Roscoelite/Alunite?	0.22	0.09	0.27	Pyroxene/Amphibole	0.26	0.09	0.31
Iron Oxides/Iron Meta	0.14	1.59	0.13	Apatite	0.20	0.13	0.09
				Organic Carbon/Graphit	7.36	3.32	6.07
				Others	0.47	0.33	0.46
Total	2.13	1.75	2.64	Total	97.9	98.2	97.4

Notes: 1) Iron Oxides include Geothite, Limonite, Ilmentite, Magnetite and Iron Metal.
2) Feldspar Group includes Plagioclase, Albite, Anorthite, Orthoclase and Sanidine/Obsidian.
3) Others include trace amounts of Rutile, Epidote, Sphene, and unresolved mineral species. See Appendix II for details. The mineral contents were measured in mass%.

FIGURE 1
VANADIUM DEPORTMENTS OF THE THREE TEST SAMPLES



MINERALOGICAL ASSESSMENTS OF THREE TEST SAMPLES

APPENDIX I

SAMPLE ORIGIN AND METHDOLOGY

FEBRUARY 13, 2020

1. Sample Origin and Methodology:

Three test samples were submitted for the mineralogical assessment at the BV Minerals - Metallurgical Division in Canada on October 10 and November 28, 2019, respectively. These three test samples, including BX2, BX4 and Composite, represented the feeds of the ongoing metallurgical tests at BV minerals-metallurgical Division.

Upon receipt of the samples, the representative cuts were taken from each of the three test samples for the chemical analysis and mineralogical studies. The standard chemical analysis protocols were performed on each of the test samples as received, to assist the calibrations of QEMSCAN analysis.

Each of the unsized samples as received was mounted into the 30mm blocks using epoxy. During the mounting, graphite was also added into each sample block in order to decrease the particle touching and the settlement of mineral particles with relatively high specific gravity. The mounted sample blocks were ground, polished and carbon coated using the standard QEMSCAN sample preparation procedures.

Following the sample preparation, the QEMSCAN Bulk Mineral Analysis (BMA) was conducted on each of the unsized samples. The SIP (Specific Identification Protocols) was particularly developed for these three test samples, to identify and quantify the mineral compositions of these three test samples. The data generated using QEMSCAN Particle Mineral Analysis (PMA) can be located in Appendix II.

MINERALOGICAL ASSESSMENTS OF THREE TEST SAMPLES

APPENDIX II

QEMSCAN BULK MINERAL ANALYSIS (BMA) DATA

FEBRUARY 13, 2020

TABLE 1A
MINERAL COMPOSITION OF THE THREE COMPOSITE SAMPLES
MM1900410

Minerals	BX2	Comp	BX4
Cu Sulphides	0.03	<0.01	0.00
Galena	<0.01	<0.01	0.01
Sphalerite	1.05	<0.01	0.88
Pyrite	0.27	0.04	1.46
Tivanite (VTiOx)	0.41	0.01	0.02
Paramonoseite (VO2)	0.01	0.03	0.00
Roscoelite/Alunite?	0.22	0.09	0.29
Goethite	0.08	1.53	0.06
Iron Metal	0.07	0.05	0.09
Quartz	79.4	83.6	86.2
K-Feldspar	4.93	7.05	4.73
Wollastonite	2.88	0.26	2.59
Plagioclase Feldspar	0.47	0.99	0.87
Muscovite/Illite	0.44	1.11	0.62
Calcite	1.44	1.35	1.25
Pyroxene/Amphibole	0.26	0.09	0.33
Apatite	0.20	0.13	0.03
Rutile/Anatase	0.09	0.12	0.09
Edingtonite Ba(AlSi)Ox	0.12	0.07	0.10
Zircon	0.01	0.01	0.04
Barite	<0.01	0.02	0.06
Organic Carbon/Graphite	7.36	3.32	0.00
Others	0.21	0.11	0.27
Total	100.0	100.0	100.0

Note: 1) Copper Sulphides include Chalcopyrite and Tetrahedrite.
2) Iron Oxides include Geothite, Hematite and Ilmonite.
3) Muscovite/Illite includes trace amounts of Kaolinite and Chlorite.
4) The mineral contents were measured in mass%.

TABLE 1B
VANADIUM DISTRIBUTION BY VANADIUM BEARING MINERALS
MM1900410

Mineral	BX2	Comp	BX4
Tivanite (VTiOx)	74.5	5.5	15.2
Paramonoseite (VO2)	5.6	33.7	9.6
Roscoelite/Alunite?	18.3	14.4	66.1
Goethite	0.8	38.5	1.3
Muscovite/Illite	0.8	7.9	7.9
Total	100.0	100.0	100.0

APPENDIX VIII - ACID LEACHING RESULTS

LEACH RESULTS SUMMARY

Client: Song Tao
Test: L1
Sample: Composite

Date: 6-Nov-19
Project: 1902410

Objective: Sulphuric acid leach of vanadium from composite sample

Test	Sample	Leach Temp.	Leach		Extraction	
id	id	°C	Sulphuric acid	% solids	V,%	Fe,%
L1	Composite	90-95	1:3	23	86.4	93.7

ACID LEACH TEST REPORT

Client: Song Tao
Test: L1
Sample: Composite

Date: 6-Nov-19
Project: 1902410

Objective: Sulphuric acid leach of vanadium from composite sample

TEST CONDITIONS

Solids weight:	129.8 g	
12N H2SO4:	451 g	
Slurry:	581 g	
Wt. % Solid:	23 %	
Temperature:	90-95 °C	
Test Duration:	2 hours	

TEST DESCRIPTION

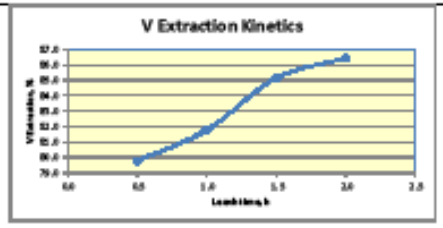
- composite sample pulverized to 80% passing 42 µm
- adjusted to 23% solids with 12N sulphuric acid
- agitated leach on magnetic stirrer for 120 minutes at 90-95°C
- slurry sample taken at 30, 60, 90 minutes and at the end of leaching
- slurry filtered, volume and weight of PLS recorded and assayed
- cake washed three times with water
- dried residue weighed and assayed

HEAD GRADE

	V
Calculated:	0.17 %
Measured:	0.15 %

LEACH TEST DATA

Time		Slurry	Solution			Assay										Recovery				
hours	Temp. °C	Weight (g)	Solution SG, g/ml	Vol. (mL)	Assay Vol. (mL)	V (mg/L, %)	(mg)	Fe (mg/L, %)	(mg)	Al (mg/L, %)	(mg)	K (mg/L, %)	(mg)	Mg (mg/L, %)	(mg)	V (%)	Fe (%)	Al (%)	K (%)	Mg (%)
0	90																			
0.5	103	551	1.350	337	15	515.2	174	3,042	1025	2,555	874	767	259	57.5	195	79.5	97.1	39.2	30.0	73.3
1.0	85	535	1.333	322	15	529.3	179	3,021	1014	3,051	1026	843	283	567	190	81.6	96.0	41.3	32.8	74.2
1.5	95	510	1.338	302	17	560.4	186	3,040	1001	3,269	1077	933	306	618	204	85.1	94.8	43.3	35.5	76.7
2.0	97	451	1.360	275		615.9	169	3,115	920	3,595	1117	994	314	654	205	85.4	93.7	44.9	36.4	77.3
Total in solution							709		3990		1117		914		806	86.4	937	44.9	36.4	77.3
Residue		105.6				0.025	29.6	0.057	66.5	1.297	1,369	0.52	649	0.05	61	13.6	6.3	55.1	63.6	22.7
Head						0.18		0.83		2.11		0.74		0.22						
Total																100.0	100.0	100.0	100.0	100.0



LEACH SOLUTION ASSAY REPORT

Client: Song Tao
Sample: L1 PLS as per ID

Date: 6-Nov-19
Project: 1902410

Analyte	Unit	Sample ID				LDL	Method
		L1 30' Pls	L1 60' Pls	L1 90' Pls	L1 Final PLS		
Al	mg/L	2888.0	3051.0	3269.0	3528.0	0.08	ICPH2O
As	mg/L	9.4	10.3	9.8	10.2	0.2	ICPH2O
B	mg/L	7.73	11.81	9.05	9.57	0.06	ICPH2O
Ba	mg/L	0.007	0.019	0.014	0.025	0.003	ICPH2O
Ca	mg/L	64.10	86.93	79.77	78.17	0.05	ICPH2O
Cd	mg/L	5.31	5.82	5.88	6.03	0.01	ICPH2O
Co	mg/L	<0.03	0.20	0.13	0.17	0.03	ICPH2O
Cr	mg/L	35.11	35.19	36.54	38.48	0.03	ICPH2O
Cu	mg/L	25.54	24.49	24.56	24.89	0.04	ICPH2O
Fe	**mg/L**	**3057.0**	**3021.0**	**3040.0**	**3118.0**	0.02	ICPH2O
K	mg/L	767.0	843.0	933.0	994.0	0.4	ICPH2O
Li	mg/L	0.09	0.90	0.70	0.99	0.02	ICPH2O
Mg	mg/L	578.10	586.70	617.80	644.60	0.05	ICPH2O
Mn	mg/L	23.40	23.60	22.66	23.05	0.01	ICPH2O
Mo	mg/L	10.22	10.85	10.92	11.16	0.05	ICPH2O
Na	mg/L	23.0	51.0	25.0	24.0	0.1	ICPH2O
Ni	mg/L	21.45	23.46	23.25	23.70	0.06	ICPH2O
P	mg/L	126.5	137.1	137.8	140.6	0.2	ICPH2O
Pb	mg/L	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
S	mg/L	186900	179400	180400	186800.0	0.3	ICPH2O
Sb	mg/L	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
Se	mg/L	<0.4	0.4	<0.4	<0.4	0.4	ICPH2O
Si	mg/L	0.3	2.8	1.3	2.1	0.2	ICPH2O
Sr	mg/L	1.321	1.548	1.398	1.444	0.002	ICPH2O
Tl	mg/L	<2	<2	<2	<2	2	ICPH2O
V	**mg/L**	**520.40**	**539.30**	**580.40**	**618.90**	0.06	ICPH2O
Zn	mg/L	193.80	196.30	192.10	175.80	0.02	ICPH2O

RESIDUE ASSAY REPORT

Client: Song Tao
Sample: L1 Solids as per ID

Date: 6-Nov-19
Project: 1902410

Analyte	Unit	Sample ID				LDL	Method
		L1 0.5h Solids	L1 1h Solids	L1 1.5h Solids	L1 Final Residue		
LOI	%	5	5.4	5.2	6.1		XF701
Al2O3	%	2.77	2.68	2.6	2.45	0.01	XF701
BaO	%	0.42	0.42	0.42	0.42	0.01	XF701
CaO	%	0.08	0.25	0.16	0.87	0.01	XF701
Cr2O3	%	0.008	0.007	0.014	0.008	0.004	XF701
Fe2O3	%	0.12	0.1	0.1	0.09	0.01	XF701
K2O	%	0.68	0.66	0.65	0.63	0.01	XF701
MgO	%	0.13	0.11	0.1	0.10	0.01	XF701
MnO	%	<0.01	<0.01	<0.01	<0.01	0.01	XF701
Na2O	%	0.12	0.11	0.11	0.115	0.01	XF701
P2O5	%	0.005	0.005	0.005	0.006	0.001	XF701
SO3	%	0.56	0.79	0.6	1.59	0.01	XF701
SiO2	%	88.71	88.62	88.64	88.20	0.01	XF701
TiO2	%	0.17	0.16	0.17	0.17	0.01	XF701
V2O5	**%**	**0.096**	**0.081**	**0.067**	**0.050**	**0.002**	**XF701**
ZnO	%	0.003	0.003	0.003	0.004	0.002	XF701
ZrO2	%	<0.01	<0.01	<0.01	<0.01	0.01	XF701

LEACH RESULTS SUMMARY

Client: Song Tao
Test: L2, L3
Sample: Composite

Date: 11-Dec-19
Project: 1902410

Objective: Temperature effect on V leach at the sulphuric acid dosage of 100kg/t and leach at 23% w/w solids

Test	Sample	Leach Temp.	Leach conditions		Extraction	
id	id	°C	Sulphuric acid dosage	% solids	V,%	Fe,%
L2	Composite	60	100kg/t	23	7.6	28.6
L3	Composite	90	100kg/t	23	11.9	50.8

ACID LEACH TEST REPORT

Client: Song Tao
Test: L2
Sample: Composite

Date: 11-Dec-19
Project: 1902410

Objective: Dosage of 100kg/t sulphuric acid and leach at 60 °C at 23% w/w solids

TEST CONDITIONS

Solids weight:	332.0	g
H2SO4:	100	kg/t
Slurry:	1,414	g
Wt % Solid:	23	%
Temperature:	60	°C
Test Duration:	6	hours
Initial pH:	0.99	

TEST DESCRIPTION

-composite sample ground to 80% passing 43µm
-adjusted to 23% solids in glass reactor
-agitated leach in heating mantel for 6 hours at 60 °C
-slurry sample taken at 0.5; 1; 2; 3; 4; 5 and 6h of leaching
-slurry filtered, volume and weight of PLS recorded and assayed
-cake washed three times with water
-dried residue weighed and assayed

Pic 1: Overhead agitation leach

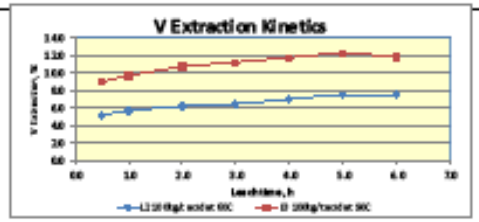
HEAD GRADE

	V
Calculated:	0.18 %
Measured:	0.18 %

LEACH TEST DATA

Time		Slurry	Solution			Assay										Recovery				
	Temp.	Weight	Solution SG, g/ml	Vol.	Assay Vol	V		Fe		Al		K		Mg		V	Fe	Al	K	Mg
hours	°C	(g)		(mL)	(mL)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(%)	(%)	(%)	(%)	(%)
0	58																			
0.5	62	1,414	1.010	1,082	7	28.3	31	486	493	467	505	49	53	253	273	5.2	16.1	7.3	2.6	38.5
1.0	60	1,393	1.015	1,055	7	31.5	33	542	575	480	510	46	49	247	262	5.6	18.8	7.3	2.4	37.0
2.0	59	1,397	1.015	1,059	7	34.3	37	619	663	496	533	49	53	247	265	6.2	21.7	7.7	2.6	37.3
3.0	59	1,407	1.016	1,068	7.5	35.8	38	668	714	494	527	52	56	241	260	6.5	23.4	7.6	2.7	36.7
4.0	60	1,427	1.016	1,088	7.5	37.7	42	717	780	519	572	58	62	245	262	7.0	25.9	8.2	3.0	37.0
5.0	60	1,441	1.016	1,102	7.5	39.2	44	767	845	523	584	61	65	245	263	7.5	27.6	8.4	3.2	37.1
6.0	60	1,430	1.016	1,090		40.4	45	791	873	502	557	65	72	236	262	7.6	28.6	8.0	3.5	37.0
Total in solution							45		873		557		72		262	7.8	28.6	8.0	3.5	37.0
Residue		321.8				0.17	547.0	0.68	2,191	1.99	6,403	0.62	1,995	0.14	447	92.4	71.4	92.0	96.5	63.0
Head						0.18		0.83		2.11		0.74		0.22						
Total																100.0	100.0	100.0	100.0	100.0

Note: Leach solutions light brown color



ACID LEACH TEST REPORT

Client: Song Tao
Test: L3
Sample: Composite

Date: 11-Dec-19
Project: 190241 0

Objective: Dosage of 100 kg/t sulphuric acid and leach at 90 °C at 23% w/w solids

TEST CONDITIONS

Solids weight:	332.0	g
H_2SO_4:	100	kg/t
Slurry:	1,413	g
Wt % Solid:	23	%
Temperature:	90	°C
Test Duration:	6	hours
Initial pH:	0.99	

TEST DESCRIPTION

-composite sample ground to 80% passing 43µm
-adjusted to 23% solids in glass reactor
-agitated leach in heating mantel for 6 hours at 60 °C
-slurry sample taken at 0.5; 1;2;3;4;5 and 6h of leaching
-slurry filtered, volume and weight of PLS recorded and assayed
-cake washed three times with water
-dried residue weighed and assayed

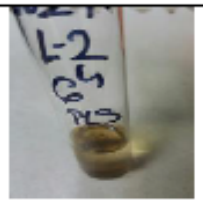
HEAD GRADE

	V
Calculated:	0.17 %
Measured:	0.18 %

LEACH TEST DATA

Time		Slurry	Solution			Assay										Recovery				
	Temp.	Weight	Solution	Vol.	Assay Vol.	V		Fe		Al		K		Mg		V	Fe	Al	K	Mg
hours	°C	(g)	SG, g/ml	(mL)	(mL)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(%)	(%)	(%)	(%)	(%)
0	88																			
0.5	90	1,413	1.015	1,078	7	48.1	52	968	1027	590	625	60	65	266	287	9.0	34.5	9.0	3.2	39.9
1.0	91	1,380	1.016	1,045	7	53.2	56	1097	1152	600	631	68	71	261	274	9.7	38.7	9.1	3.5	38.1
2.0	89	1,370	1.016	1,035	7	59.2	62	1264	1322	675	707	71	74	273	286	10.7	44.4	10.2	3.7	39.7
3.0	89	1,349	1.018	1,012	7	64.2	65	1411	1428	705	713	73	79	279	301	11.2	47.9	10.3	3.9	41.8
4.0	90	1,365	1.020	1,026	7	65.5	68	1450	1506	728	756	76	80	277	293	11.8	50.6	10.9	4.0	40.7
5.0	88	1,380	1.020	1,041	7	68.0	71	1458	1538	725	764	81	85	273	287	12.2	51.6	11.0	4.2	39.8
6.0	91	1,378	1.020	1,038		65.1	69	1436	1513	692	731	81	85	262	277	11.9	50.8	10.5	4.2	38.5
Total in solution							69		1513		731		85		277	11.9	50.8	10.5	4.2	38.5
Residue		318.7				0.16	510	0.46	1,466	1.95	6,214	0.61	1,944	0.14	443	88.1	49.2	89.5	95.8	61.5
Head						0.18		0.83		2.11		0.74		0.22						
Total																100.0	100.0	100.0	100.0	100.0

Note: leach solutions light brown color; slightly darker from L2 leach solutions



Pic 2: L2 and L3 solutions color

LEACH SOLUTION ASSAY REPORT

Client: Song Tao
Sample: L2 PLS as per ID

Date: 11-Dec-19
Project: 1902410

Analyte	Unit	Sample ID							LDL	Method
		L2 0.5h Pls	L2 1h Pls	L2 2h Pls	L2 3h Pls	L2 4h Pls	L2 5h Pls	L2 6h Pls		
Al	mg/L	467.00	480.00	496.40	493.60	518.70	523.00	501.90	0.08	ICPH2O
As	mg/L	2.3	2.4	2.4	2.4	2.7	2.8	2.8	0.2	ICPH2O
B	mg/L	2.61	2.29	2.35	2.57	2.54	2.68	2.29	0.06	ICPH2O
Ba	mg/L	0.062	0.054	0.044	0.049	0.050	0.046	0.050	0.003	ICPH2O
Ca	mg/L	888.90	917.40	867.80	900.30	894.10	881.80	858.70	0.05	ICPH2O
Cd	mg/L	6.24	5.67	5.56	4.80	5.31	5.30	5.25	0.01	ICPH2O
Co	mg/L	0.57	0.57	0.57	0.52	0.58	0.58	0.59	0.03	ICPH2O
Cr	mg/L	5.84	6.06	6.52	6.79	7.17	7.42	7.70	0.03	ICPH2O
Cu	mg/L	11.70	10.29	10.46	10.35	10.83	10.85	11.06	0.04	ICPH2O
Fe	**mg/L**	**455.40**	**541.80**	**619.00**	**668.40**	**717.20**	**757.10**	**790.80**	**0.02**	**ICPH2O**
K	mg/L	49.0	46.0	49.0	52.0	58.0	61.0	65.0	0.4	ICPH2O
Li	mg/L	0.06	0.06	0.07	0.09	0.08	0.08	0.09	0.02	ICPH2O
Mg	mg/L	252.80	247.00	246.80	240.50	245.40	244.70	235.80	0.05	ICPH2O
Mn	mg/L	18.36	16.59	16.61	16.02	16.07	15.92	15.75	0.01	ICPH2O
Mo	mg/L	0.25	0.26	0.30	0.35	0.44	0.49	0.56	0.05	ICPH2O
Na	mg/L	12.0	9.0	9.0	9.0	10.0	10.0	10.0	0.1	ICPH2O
Ni	mg/L	9.23	10.23	11.06	11.39	12.16	12.51	13.03	0.06	ICPH2O
P	mg/L	80.7	79.6	78.8	75.3	74.8	72.7	72.6	0.2	ICPH2O
Pb	mg/L	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
S	mg/L	8062.0	7624.0	7668.0	7455.0	7322.0	7170.0	7105.0	0.3	ICPH2O
Sb	mg/L	<0.2	<0.2	<0.2	<0.2	0.2	0.3	0.2	0.2	ICPH2O
Se	mg/L	0.6	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4	ICPH2O
Si	mg/L	112.1	129.3	140.4	147.9	155.6	161.1	166.4	0.2	ICPH2O
Sr	mg/L	4.623	3.803	3.522	3.389	3.402	3.223	3.149	0.002	ICPH2O
Tl	mg/L	<2	<2	<2	<2	<2	<2	<2	2	ICPH2O
V	**mg/L**	**28.25**	**31.49**	**34.32**	**35.75**	**37.69**	**39.15**	**40.39**	**0.06**	**ICPH2O**
Zn	mg/L	96.90	100.20	103.70	103.90	106.30	106.90	108.90	0.02	ICPH2O

LEACH SOLUTION ASSAY REPORT

Client: Song Tao
Sample: L3 PLS as per ID

Date: 11-Dec-19
Project: 1902410

Analyte	Unit	Sample ID							LDL	Method
		L3 0.5h Pls	L3 1h Pls	L3 2h Pls	L3 3h Pls	L3 4h Pls	L3 5h Pls	L3 6h Pls		
Al	mg/L	579.70	600.10	675.30	704.80	727.50	725.00	691.70	0.08	ICPH2O
As	mg/L	3.6	2.6	4.5	5.0	2.1	5.4	5.4	0.2	ICPH2O
B	mg/L	3.11	3.25	2.99	3.14	3.26	3.64	3.40	0.06	ICPH2O
Ba	mg/L	0.049	0.050	0.055	0.050	0.038	0.049	0.054	0.003	ICPH2O
Ca	mg/L	1064.00	1129.00	1129.00	1060.00	1013.00	1072.00	1015.00	0.05	ICPH2O
Cd	mg/L	5.92	3.84	5.81	5.84	2.39	5.68	5.48	0.01	ICPH2O
Co	mg/L	0.68	0.48	0.74	0.77	0.33	0.79	0.77	0.03	ICPH2O
Cr	mg/L	8.81	9.51	10.30	11.09	11.38	11.56	11.33	0.03	ICPH2O
Cu	mg/L	12.41	12.88	13.06	13.25	13.28	13.66	13.26	0.04	ICPH2O
Fe	**mg/L**	**952.80**	**1097.00**	**1264.00**	**1411.00**	**1450.00**	**1459.00**	**1435.00**	**0.02**	**ICPH2O**
K	mg/L	60.0	68.0	71.0	73.0	76.0	81.0	81.0	0.4	ICPH2O
Li	mg/L	0.10	0.12	0.13	0.14	0.15	0.17	0.17	0.02	ICPH2O
Mg	mg/L	266.30	261.00	272.50	279.00	277.20	273.30	261.70	0.05	ICPH2O
Mn	mg/L	17.88	17.67	17.96	18.15	17.87	17.60	17.09	0.01	ICPH2O
Mo	mg/L	0.76	0.78	1.63	2.00	0.95	2.40	2.44	0.05	ICPH2O
Na	mg/L	11.0	12.0	11.0	12.0	12.0	14.0	13.0	0.1	ICPH2O
Ni	mg/L	15.74	17.88	20.59	22.42	22.78	23.00	22.93	0.06	ICPH2O
P	mg/L	80.9	78.7	80.4	81.8	79.7	77.0	74.1	0.2	ICPH2O
Pb	mg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
S	mg/L	8039.0	7816.0	7855.0	7974.0	7711.0	7643.0	7379.0	0.3	ICPH2O
Sb	mg/L	0.3	<0.2	0.3	0.3	<0.2	0.4	0.3	0.2	ICPH2O
Se	mg/L	<0.4	0.4	0.9	1.0	0.5	1.2	1.3	0.4	ICPH2O
Si	mg/L	193.5	225.5	253.2	274.2	276.9	275.2	270.5	0.2	ICPH2O
Sr	mg/L	3.676	3.582	3.289	3.066	2.904	2.914	2.833	0.002	ICPH2O
Tl	mg/L	<2	<2	<2	<2	<2	<2	<2	2	ICPH2O
V	**mg/L**	**48.12**	**53.16**	**59.16**	**64.19**	**65.49**	**65.99**	**65.13**	**0.06**	**ICPH2O**
Zn	mg/L	126.70	134.50	146.40	155.20	155.40	154.90	151.80	0.02	ICPH2O

RESIDUE ASSAY REPORT

Client: Song Tao **Date:** 11-Dec-19

Sample: L2, L3 Final Solids as per ID **Project:** 1902410

Analyte	Unit	Sample ID		LDL	Method
		L2 6h Solids	L3 6h Solids		
LOI	%	6.6	6.2		XF701
Al2O3	%	3.76	3.68	0.01	XF701
BaO	%	0.41	0.4	0.01	XF701
CaO	%	0.91	0.64	0.01	XF701
Cr2O3	%	0.06	0.059	0.004	XF701
Fe2O3	%	0.97	0.66	0.01	XF701
K2O	%	0.87	0.86	0.01	XF701
MgO	%	0.23	0.23	0.01	XF701
MnO	%	<0.01	<0.01	0.01	XF701
Na2O	%	0.11	0.1	0.01	XF701
P2O5	%	0.033	0.033	0.001	XF701
SO3	%	1.67	1.28	0.01	XF701
SiO2	%	84.88	85.37	0.01	XF701
TiO2	%	0.18	0.18	0.01	XF701
V2O5	%	**0.304**	**0.288**	**0.002**	**XF701**
ZnO	%	0.022	0.008	0.002	XF701
ZrO2	%	<0.01	<0.01	0.01	XF701

LEACH RESULTS SUMMARY

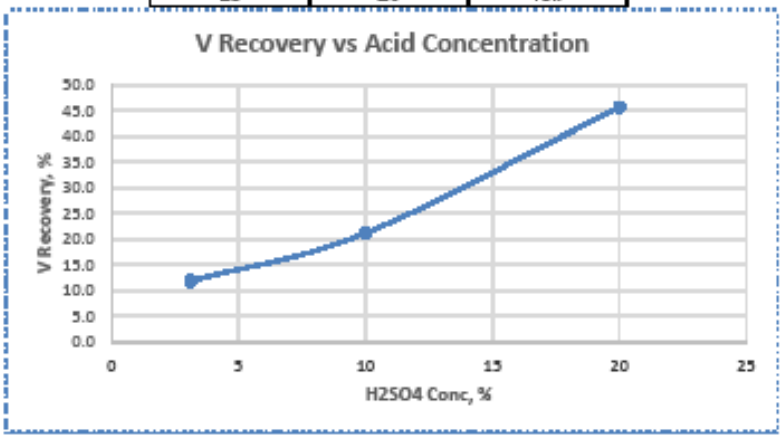
Client: Song Tao
Test: L4, L5
Sample: Composite

Date: 6-Feb-20
Project: 1902410

Objective: Sulphuric dosage effect on V leach at 40% w/w solids

Test id	Sample id	Leach Temp. °C	Leach conditions		Extraction	
			Sulphuric acid dosage	% solids	V,%	Fe,%
L4	Composite	90	150kg/t	40	21.2	73.0
L5	Composite	90	300kg/t	40	45.7	77.3

Leach at 90C	Acid concentration, %	V recovery,%
L3	3.1	11.9
L4	10	21.2
L5	20	45.7



ACID LEACH TEST REPORT

Client: Scag Tao
Test: L4
Sample: Composite

Date: 5-Feb-20
Project: 19024-10

Objective: Dosage of 150kg/t sulphuric acid and leach at 90°C at 40% w/w solids

TEST CONDITIONS

Solids weight:	500.0 g	
H2SO4:	150 kg/t	
Slurry:	1,250 g	
Wt.% Solid:	40 %	
Temperature:	90 °C	
Test Duration:	4 hours	

TEST DESCRIPTION

-composite sample ground to 80% passing 45µm
-adjusted to 40% solids in glass reactor
-agitated leach in heating mantle for 4 hours at 90°C
-slurry samples taken at 1;2;3 and 4h of leaching
-slurry filtered, volume and weight of PLS recorded and assayed
-cake washed three times with water
-dried residue weighed and assayed

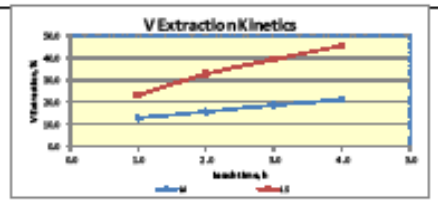
HEAD GRADE

	V
Calculated:	0.18 %
Measured:	0.18 %

LEACH TEST DATA

Time		Slurry	Solution			Assay										Recovery				
	Temp.	Weight	Solution SG, g/ml	Vol.	Assay Vol.	V		Fe		Al		K		Mg		V	Fe	Al	K	Mg
hours	°C	(g)		(ml)	(ml)	(mg/L)	(%)	(mg/L)	(%)	(mg/L)	(mg)	(mg/L)	(mg)	(mg/L)	(mg)	(%)	(%)	(%)	(%)	(%)
0	90																			
1.0	91	1,250		712	4.5	161.3	115	4167	3022	1,490	1061	221	157	611	435	13.0	71.2	10.2	4.4	40.8
2.0	90	1,237		700	7.1	199.9	140	5111	3599	1,654	1164	282	199	630	443	15.8	72.7	11.2	5.6	41.5
3.0	85	1,200		695	7.5	245.1	165	5330	3595	1,935	1301	324	220	675	452	18.5	73.3	12.5	6.4	45.1
4.0	90	1,183	1.006	650		322.2	187	5407	3513	2,062	1373	364	242	695	464	21.2	73.0	13.2	6.8	43.5
Total in solution							187		3513		1373		242		464	21.2	73.0	13.2	6.8	43.5
Residue		475.0				0.15	696.2	0.20	1,004	1.00	5,000	0.70	3,325	0.13	604	78.8	27.0	86.8	93.2	56.5
Head						0.18		0.83		2.11		0.74		0.22						
Total																100.0	100.0	100.0	100.0	100.0

Note: leach solution turns color



ACID LEACH TEST REPORT

Client: Boag Tao
Test: L5
Sample : Composite

Date: 6-Feb-20
Project: 1902410

Objective : Dosage of 300kg/t sulphuric acid and leach at 90 °C at 40% w/w solids

TEST CONDITIONS

Solids weight:	500.0 g	
H2SO4:	300 kg/t	
Slurry:	1,250 g	
Wt.% Solid:	40 %	
Temperature:	90 °C	
Test Duration:	6 hours	
Initial pH:	0.99	

TEST DESCRIPTION

-composite sample ground to 80% passing 45µm
-adjusted to 40% solids in glass reactor
-agitated leach in heating mantel for 4 hours at 90 °C
-slurry samples taken at 1;2;3 and 4h of leaching
-slurry filtered, volume and weight of PLS recorded and assayed
-cake washed three times with water
-dry cake solids weighed and assayed

HEAD GRADE

	V
Calculated:	0.17 %
Measured:	0.18 %

LEACH TEST DATA

Time		Slurry	Solution			Assay										Recovery				
	Temp.	Weight	Solution SG, g/ml	Vol.	Assay Vol.	V		Fe		Al		K		Mg		V	Fe	Al	K	Mg
hours	°C	(g)		(mL)	(mL)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(mg/L, %)	(mg)	(%)	(%)	(%)	(%)	(%)
0	88																			
1.0	91	1,250		682	9	218.3	199	823	3596	2,016	1375	364	248	659	449	23.2	7.52	13.4	7.0	43.6
2.0	89	1,225		660	9	420.6	280	553	3719	2,501	1669	504	336	738	493	32.8	7.78	16.3	9.5	47.8
3.0	88	1,236		670	9	492.2	335	523	3515	2,645	1.814	550	390	737	499	39.5	7.56	17.7	11.0	45.4
4.0	91	1,259	1.142	690	9	560.0	390	919	3699	2,921	2.080	633	450	764	546	45.7	7.73	20.3	12.7	53.0
Total in solution							890		3699		2.080		450		546	45.7	7.73	20.3	12.7	53.0
Residue		471.2				0.10	466	0.23	1,084	1.73	8,152	0.55	2,591	0.10	466	54.3	92.27	79.7	87.3	47.0
Head						0.18		0.83		2.11		0.74		0.22						
Total																100.0	100.0	100.0	100.0	100.0

Hot leach stainless steel

LEACH SOLUTION ASSAY REPORT

Client: Song Tao
Sample: L4 PLS as per ID

Date: 5-Feb-20
Project: 1902410

Analyte	Unit	L4 1h Pls	L4 2h Pls	L4 3h Pls	L4 4h Pls	LDL	Method
Al	mg/L	1490.00	1654.00	1926.00	2062.00	0.08	ICPH2O
As	mg/L	19.3	19.5	19.2	19.7	0.2	ICPH2O
B	mg/L	4.80	4.78	4.94	5.36	0.06	ICPH2O
Ba	mg/L	0.059	0.091	0.088	0.098	0.003	ICPH2O
Ca	mg/L	632.50	620.90	613.40	634.30	0.05	ICPH2O
Cd	mg/L	12.97	13.06	12.81	12.96	0.01	ICPH2O
Co	mg/L	1.92	1.98	1.93	2.01	0.03	ICPH2O
Cr	mg/L	29.04	34.44	38.29	41.48	0.03	ICPH2O
Cu	mg/L	37.87	39.09	38.87	39.22	0.04	ICPH2O
Fe	mg/L	4947.00	5111.00	5360.00	5407.00	0.02	ICPH2O
K	mg/L	220.5	282.3	323.6	364.3	0.4	ICPH2O
Li	mg/L	0.40	0.53	0.71	0.78	0.02	ICPH2O
Mg	mg/L	611.20	629.60	678.10	694.80	0.05	ICPH2O
Mn	mg/L	43.06	42.96	43.67	44.32	0.01	ICPH2O
Mo	mg/L	14.52	15.08	14.55	14.77	0.05	ICPH2O
Na	mg/L	21.1	21.3	21.8	23.2	0.1	ICPH2O
Ni	mg/L	51.86	53.96	54.56	56.21	0.06	ICPH2O
P	mg/L	247.2	252.9	250.0	256.4	0.2	ICPH2O
Pb	mg/L	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
S	mg/L	27300.0	27120.0	27790.0	27830.0	0.3	ICPH2O
Sb	mg/L	0.3	0.2	0.5	0.9	0.2	ICPH2O
Se	mg/L	5.6	6.3	6.4	5.9	0.4	ICPH2O
Si	mg/L	282.1	294.0	294.7	285.7	0.2	ICPH2O
Sr	mg/L	6.719	6.501	5.997	5.743	0.002	ICPH2O
Tl	mg/L	<2	<2	<2	<2	2	ICPH2O
V	mg/L	161.10	198.90	246.10	282.20	0.06	ICPH2O
Zn	mg/L	359.50	363.60	386.60	384.40	0.02	ICPH2O

LEACH SOLUTION ASSAY REPORT

Client: Song Tao
Sample: L5 PLS as per ID

Date: 5-Feb-20
Project: 1902410

Analyte	Unit	L5 1h Pls	L5 2h Pls	L5 3h Pls	L5 4h Pls	LDL	Method
Al	mg/L	2016.00	2501.00	2648.00	2921.00	0.08	ICPH2O
As	mg/L	18.3	19.4	18.6	17.9	0.2	ICPH2O
B	mg/L	5.71	6.36	7.04	7.82	0.06	ICPH2O
Ba	mg/L	0.148	0.128	0.119	0.145	0.003	ICPH2O
Ca	mg/L	523.50	484.80	492.60	495.20	0.05	ICPH2O
Cd	mg/L	11.69	12.26	11.74	11.23	0.01	ICPH2O
Co	mg/L	1.80	1.99	1.88	1.83	0.03	ICPH2O
Cr	mg/L	38.15	49.29	53.84	56.79	0.03	ICPH2O
Cu	mg/L	40.85	43.37	42.15	40.73	0.04	ICPH2O
Fe	mg/L	5273.00	5563.00	5253.00	5151.00	0.02	ICPH2O
K	mg/L	364.3	503.5	579.5	632.8	0.4	ICPH2O
Li	mg/L	0.71	0.98	1.08	1.25	0.02	ICPH2O
Mg	mg/L	659.10	737.50	737.10	764.10	0.05	ICPH2O
Mn	mg/L	39.62	41.79	40.22	38.96	0.01	ICPH2O
Mo	mg/L	16.87	17.61	16.49	15.94	0.05	ICPH2O
Na	mg/L	21.1	22.3	22.5	22.3	0.1	ICPH2O
Ni	mg/L	49.82	54.52	53.61	52.29	0.06	ICPH2O
P	mg/L	244.4	258.8	248.2	236.3	0.2	ICPH2O
Pb	mg/L	<0.2	<0.2	<0.2	<0.2	0.2	ICPH2O
S	mg/L	55980.0	59150.0	55030.0	54330.0	0.3	ICPH2O
Sb	mg/L	0.6	0.7	0.7	0.7	0.2	ICPH2O
Se	mg/L	6.1	6.3	5.9	5.9	0.4	ICPH2O
Si	mg/L	137.2	148.6	132.9	164.2	0.2	ICPH2O
Sr	mg/L	5.142	5.065	4.077	4.092	0.002	ICPH2O
Tl	mg/L	<2	<2	<2	<2	2	ICPH2O
V	mg/L	291.30	420.60	492.20	550.00	0.06	ICPH2O
Zn	mg/L	355.60	348.90	328.30	316.50	0.02	ICPH2O

RESIDUE ASSAY REPORT

Client: Song Tao
Sample: L4, L5 Final Solids as per ID

Date: 6-Feb-20
Project: 1902410

Analyte	Unit	Sample ID		LDL	Method
		L4 4h Solids	L5 4h Solids		
LOI	%	6.1	5.9		XF701
Al2O3	%	3.58	3.27	0.01	XF701
BaO	%	0.42	0.42	0.01	XF701
CaO	%	0.92	0.8	0.01	XF701
Cr2O3	%	0.061	0.057	0.004	XF701
Fe2O3	%	0.4	0.33	0.01	XF701
K2O	%	0.84	0.79	0.01	XF701
MgO	%	0.21	0.17	0.01	XF701
MnO	%	<0.01	<0.01	0.01	XF701
Na2O	%	0.13	0.12	0.01	XF701
P2O5	%	0.012	0.008	0.001	XF701
SO3	%	1.66	1.55	0.01	XF701
SiO2	%	86.21	86.99	0.01	XF701
TiO2	%	0.18	0.18	0.01	XF701
V2O5	**%**	**0.261**	**0.176**	**0.002**	**XF701**
ZnO	%	0.003	0.002	0.002	XF701
ZrO2	%	<0.01	<0.01	0.01	XF701