

# **Geochemical and Prospecting Report**

**on the**

**Elko Property**

**Comprised of the**

**Cow 1-38 claims (YD 08099-08100, YD08575-08610) and  
Elko 1-177 claims (YD58651-58717, YD110388-110497)**

NTS 106D/06 and 106D/07  
Mayo Mining District  
Yukon Territory, Canada  
64°18'N Lat., 135°02'W Long.

Work Performed: July 21-24, 2013

On behalf of the owners:

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and

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## 2.0 SUMMARY AND INTRODUCTION

The Elko property is located 45 km north Keno City, Yukon and is thought to have good potential for sediment-hosted gold mineralization similar to the Tiger and/or Osiris-Conrad gold deposits further east in the Rackla Gold Belt, based on the similarity of regional geochemistry (anomalous Au, As, Sb, Hg) and proximity to the regionally significant Dawson Thrust.

The purpose of the 2013 project was to conduct follow-up prospecting and soil sampling in the north-central and northeast parts of the property. These areas have anomalous Au, As, Sb, and Hg values in ridge and spur soils collected in 2010. In addition, they occur in an area of resistivity and magnetic anomalies defined in a 2011 DIGHEM V survey.

A four-person team completed a two-day program of prospecting and soil sampling. The work was in part supported by a grant under the Yukon Mining Incentive Program.

The project was successful in confirming and extending several Au-As-Sb in soil anomalies. The anomalies are underlain by orange-weathering siliceous, pyritic and calcareous siltstones of the Proterozoic Hyland Group, which have anomalous As and Sb values. Unfortunately, the source of the gold-in-soil anomalies has not yet been identified. Nevertheless, the siliceous, pyritic, calcareous siltstones represent a good potential host for Carlin-style, sediment-hosted gold mineralization. Three priority targets for follow-up have been identified

## 3.0 PROJECT LOCATION AND LAND STATUS

The Elko property (Figure 1) is located approximately 45 km NNE of Keno City in the Mayo Mining District on NTS map sheet 106D/06 (approximately 64°18'N, 135°02'W).

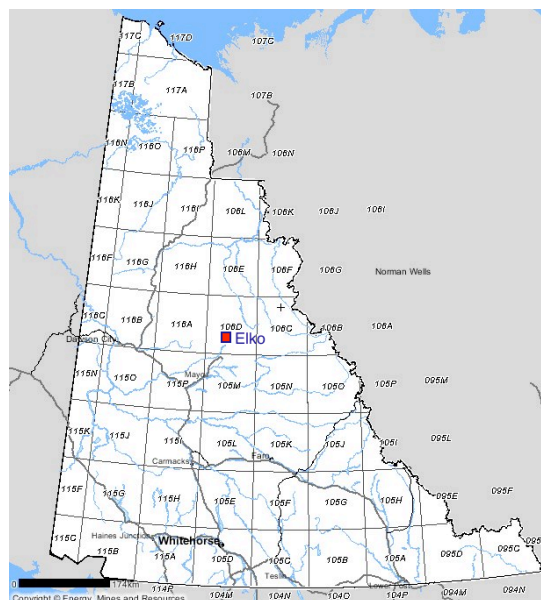


Figure 1. Location map of Elko property.

The Elko property includes the Cow 1-38 and Elko 1-177 quartz claims totaling 215 claims and approximately 4300 hectares (Table 1, Figures 2 and 3). The claims are held by several owners in trust for Cathro Resources Corp. (50%) and Cazador Resources Ltd. (50%). The property is not subject to any land restrictions, royalties or option agreements.

**Table 1: List of Claims, Elko Property, Mayo Mining District, Yukon (Note expiry date shown is prior to the acceptance of the work described in this report)**

District	Grant Number	Type	Claim	Claim #	Claim Owner	StakingDate	ClaimExpiryDate	Status
Mayo	YD08099	Quartz	Cow	1	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08100	Quartz	Cow	2	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08575	Quartz	Cow	3	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08576	Quartz	Cow	4	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08577	Quartz	Cow	5	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08578	Quartz	Cow	6	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08579	Quartz	Cow	7	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08580	Quartz	Cow	8	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08581	Quartz	Cow	9	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08582	Quartz	Cow	10	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08583	Quartz	Cow	11	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08584	Quartz	Cow	12	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08585	Quartz	Cow	13	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08586	Quartz	Cow	14	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08587	Quartz	Cow	15	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08588	Quartz	Cow	16	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08589	Quartz	Cow	17	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08590	Quartz	Cow	18	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08591	Quartz	Cow	19	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08592	Quartz	Cow	20	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08593	Quartz	Cow	21	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08594	Quartz	Cow	22	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08595	Quartz	Cow	23	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08596	Quartz	Cow	24	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08597	Quartz	Cow	25	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08598	Quartz	Cow	26	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08599	Quartz	Cow	27	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08600	Quartz	Cow	28	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08601	Quartz	Cow	29	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08602	Quartz	Cow	30	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08603	Quartz	Cow	31	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08604	Quartz	Cow	32	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08605	Quartz	Cow	33	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08606	Quartz	Cow	34	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08607	Quartz	Cow	35	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08608	Quartz	Cow	36	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08609	Quartz	Cow	37	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD08610	Quartz	Cow	38	Adam R. Travis – 100%	09-11-04	15-01-26	Active
Mayo	YD58651	Quartz	Elko	1	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58652	Quartz	Elko	2	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58653	Quartz	Elko	3	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58654	Quartz	Elko	4	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58655	Quartz	Elko	5	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58656	Quartz	Elko	6	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58657	Quartz	Elko	7	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58658	Quartz	Elko	8	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58659	Quartz	Elko	9	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58660	Quartz	Elko	10	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58661	Quartz	Elko	11	Michael S. Cathro – 100%	10-05-05	15-01-26	Active
Mayo	YD58662	Quartz	Elko	12	Michael S. Cathro – 100%	10-05-05	15-01-26	Active







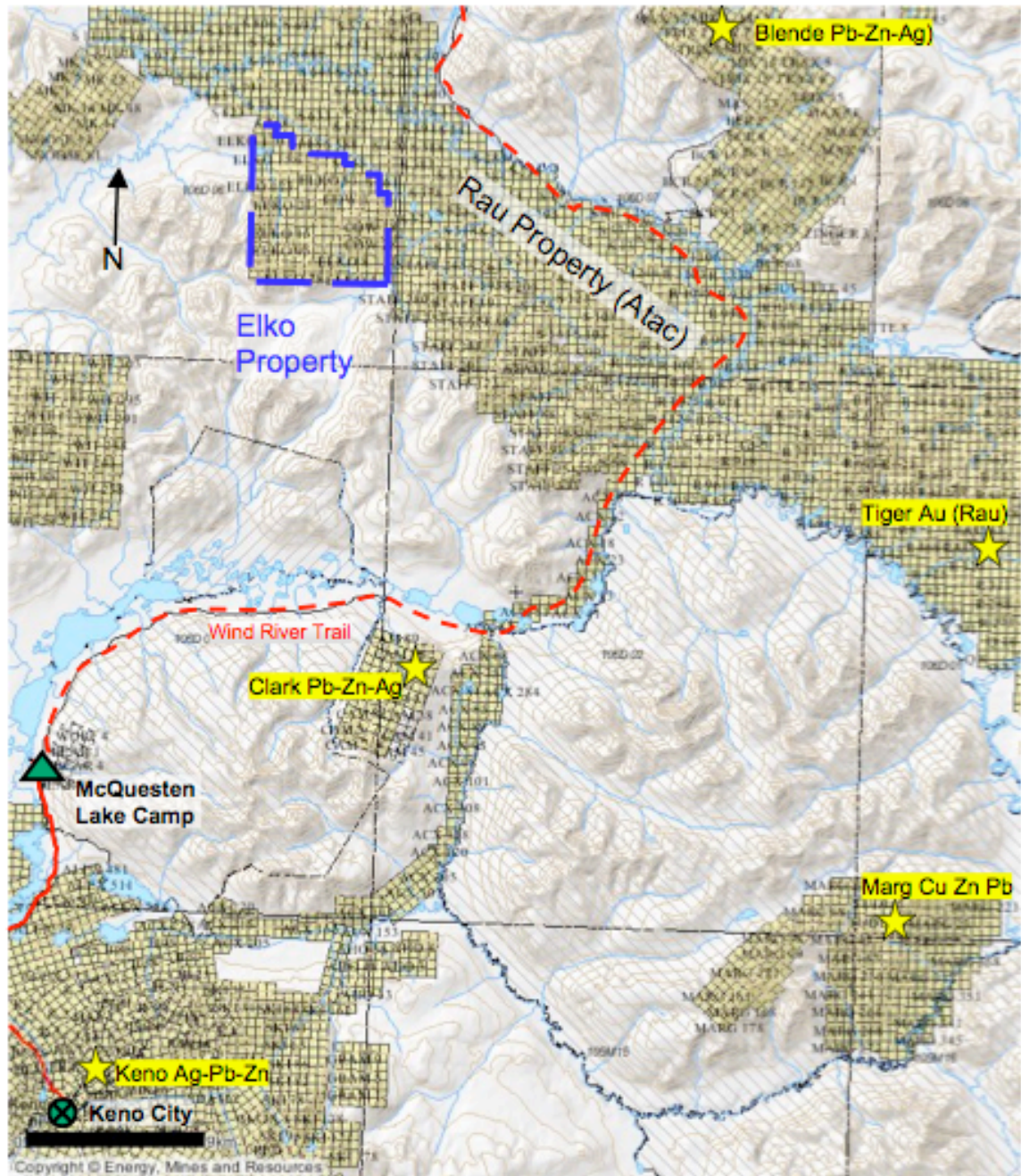


Figure 2. Regional property map showing location of key deposits, roads, Keno City and McQuesten Lake camp.

#### 4.0 ACCESS

The Elko project is accessible by helicopter from Mayo (90 km). Existing nearby winter roads access and new road access being developed into the nearby Rau project may afford for economical transportation of heavy equipment and fuel in the future, should the property develop to a more advanced stage. The Wind River Trail, a winter road, begins



at McQuesten Lake and passes within 6 km of the north side of the Elko property (Figure 2).

## 5.0 PREVIOUS WORK

The owners acquired the core of the property in late 2009 based on presence of anomalous Au, As, Sb, Mo and W values in government stream sediment samples, combined with permissive geology for sediment-hosted gold mineralization. At the time of staking, a careful review of government records identified neither known mineral occurrences nor any record of previous exploration in the area of the Elko property.

The owners completed a small prospecting, silt and soil-sampling program on the Elko property and environs in 2010, in part supported by the Yukon Mining Incentive Program (Cathro, 2011). Broad-spaced ridge and spur sampling successfully identified anomalous values in soils on two ridges on the Cow 4 and 12-16 claims in the northeast part of the property (Figures 4-7). Several soil samples were anomalous for Au (to 156.2 ppb), As (to 1609 ppm), Sb (to 54.72 ppm) and Hg (to 1585 ppm). A 15 m random chip sample of the sandy, calcareous breccia in outcrop on the east-trending spur returned weakly anomalous As (160.8 ppm) and Au (10 ppb), and two soil samples collected here were also anomalous in As (91.5 and 120.8 ppm) and Sb (13.36 ppm). A northwest striking package of Highland Group shale, silty limestone, calcareous sandstone, and calcareous breccia underlies this area.

The property was briefly optioned to Golden Ridge Resources Ltd., which completed a DIGHEM V airborne electromagnetic and magnetic survey in August 2011 (Piegrass, 2012), prior to dropping the option. A total of 246 line-km was flown on lines oriented NE-SW (030/210 degrees) and spaced at 200 m. Tie lines were flown orthogonal to traverse lines with a 2000 m line spacing. The DIGHEM V survey identified several NW trending resistivity lows, a NNE cross structure and circular magnetic features in the area of the anomalous soil geochemistry. These geophysical features are interpreted to be related to sulphide-bearing and/or graphitic conductive sedimentary units, cross faults and intrusive plugs respectively (Piegrass, 2012).

## 6.0 REGIONAL GEOLOGY AND MINERAL DEPOSITS

The Property is underlain by Upper Proterozoic/Paleozoic rocks of ancestral North America (PCH; Hyland Group) and is located directly south of, adjacent to and in the hangingwall of the regionally important Dawson Thrust (Figure 3). Mississippian aged rocks just to the east of the claims (MK; Keno Hill Quartzite) and Upper Cambrian-Lower Devonian rocks are immediately north of the claims on the Rau Property (CDB1; Bouvette Formation).

Figure 4 shows the regional geological mapping by the Geological Survey of Canada (L. Green and J.A. Roddick, GSC Map 15-1962). The Elko target area is shown as being underlain primarily by Paleozoic unit 3.

Unit 3 (now known as the Hyland Group) is described as Precambrian and/or Cambrian buff, brown and rusty weathering gritty quartzite, sandstone and quartz pebble conglomerate; black, maroon and green shales and slates, schistose quartzite, quartz chlorite schist, quartz mica schist, and phyllite with minor limestone and black chert. In some places thin to medium-bedded limestone can be mapped. It is important to note that Hyland Group is an important host to gold mineralization at Brewery Creek and elsewhere in the region.

The emerging “Rackla gold belt” (Figure 5), including the “Rau trend” and “Nadaleen trend” as named by Atac Resources, falls along the thrust-faulted margin of the Selwyn Basin to the south and Mackenzie platform to the north. Mainly underlain by Paleozoic carbonate and siliciclastic rocks, this area has been explored in the past for Keno-Hill type Ag-Pb-Zn veins and stratabound Pb-Zn-Ag replacement and Mississippi Valley type mineralization, although gold exploration was minimal prior to about 2009.

According to information released by Atac Resources and the Yukon Geological Survey, the Tiger Zone mineralization in the Rau trend consists of stratabound lenses replacing dolomitized and decalcified limestone of the Upper Cambrian to Lower Devonian Bouvette Formation. Gold mineralization has been outlined over a 650 m long, 150 m wide area and averages about 40 m thick. Mineralization occurs beneath a volcanoclastic horizon, which may have acted as an impermeable cap. The Rau trend mineralization is closely associated with a northwest-trending zone of structural disruption coincident with the hinge zone of a regional anticlinal fold closure occurring between the regional scale Dawson and Robert Service Thrusts.

At Tiger, both high-grade oxide (limonite) and low to moderate-grade sulphide (pyrite-arsenopyrite-pyrrhotite) zones are hosted in fractured, brecciated and altered carbonate rocks of the Bouvette Formation (Unit CDB1). Highlighted drill intersections include 24.08 m grading 24.07 g/t Au and 24.47 m grading 19.59 g/t Au in oxide, and 70.8 m grading 5.11 g/t Au and 78.54 m grading 1.71 g/t Au (sulphide). The Tiger zone is reported to have been discovered by following up an anomalous government stream sediment sample (150 ppb Au, 6.8 ppm As, 44 ppb Pb, 19 ppb W). Mineralization has been described as “Nevada-Style” and similarities with sediment-hosted (Carlin-type) and Ketza River, Yukon deposits have been noted. A genetic association with a nearby Late Cretaceous(?) dyke swarm has also been inferred.

Further to the east, mineralization in the Osiris – Conrad area of the Nadaleen trend (Figure 5) is described as being “Carlin-style” and is hosted by structurally disrupted Proterozoic (Hyland Group) and Lower Paleozoic silty limestone, calcareous diamictite, non-calcareous shale, and mafic intrusions. There is a strong association with As (including realgar and orpiment minerals), Sb, Hg and Tl.

The Rau belt occurs north of the important Tombstone gold belt, which includes the important Fairbanks, Fort Knox, and Pogo intrusion-related gold deposits in Alaska, and the Brewery Creek, Clear Creek, and Eagle Gold (Dublin Gulch) deposits in Yukon. The

Eagle Gold deposit, owned by Victoria Gold Corp. is located west southwest of the Elko property area and has an Indicated Resource of 2.7 million ounces of gold (98.6 million tonnes grading 0.85 g/t).

The prolific and high-grade Keno Hill silver-lead-zinc mining camp (Alexco Resources Corp.) is located approximately 45 kilometres south of Elko. Between 1913 and 1990 this district is reported to have produced more than 217 million ounces of silver at an average grade of 40.5 oz/ton, along with significant quantities lead and zinc. Other important deposits in the immediate area include the carbonate-hosted Blende deposit of Blind Creek Resources, located 25 km northeast of Elko, with an inferred resource of 19.6 mt grading 3.04% Zn, 2.8% Pb and 55.9 g/t Ag.

## 7.0 REGIONAL GEOPHYSICS

The regional government total field aeromagnetic map (Figure 6) shows subtle aeromagnetic highs to the NW and SE of the Property, suggestive of possible un-mapped or buried intrusive bodies which are indicative of Tombstone-style gold deposits, and which may also be important at Rau.

As noted above, the 2011 DIGHEM V survey identified several NW trending resistivity lows on the Elko property, a NNE cross structure and circular magnetic features (Figures 7 and 8) in the area of the anomalous soil geochemistry. These geophysical features are interpreted to be related to sulphide-bearing and/or graphitic conductive sedimentary units, cross faults and intrusive plugs respectively.

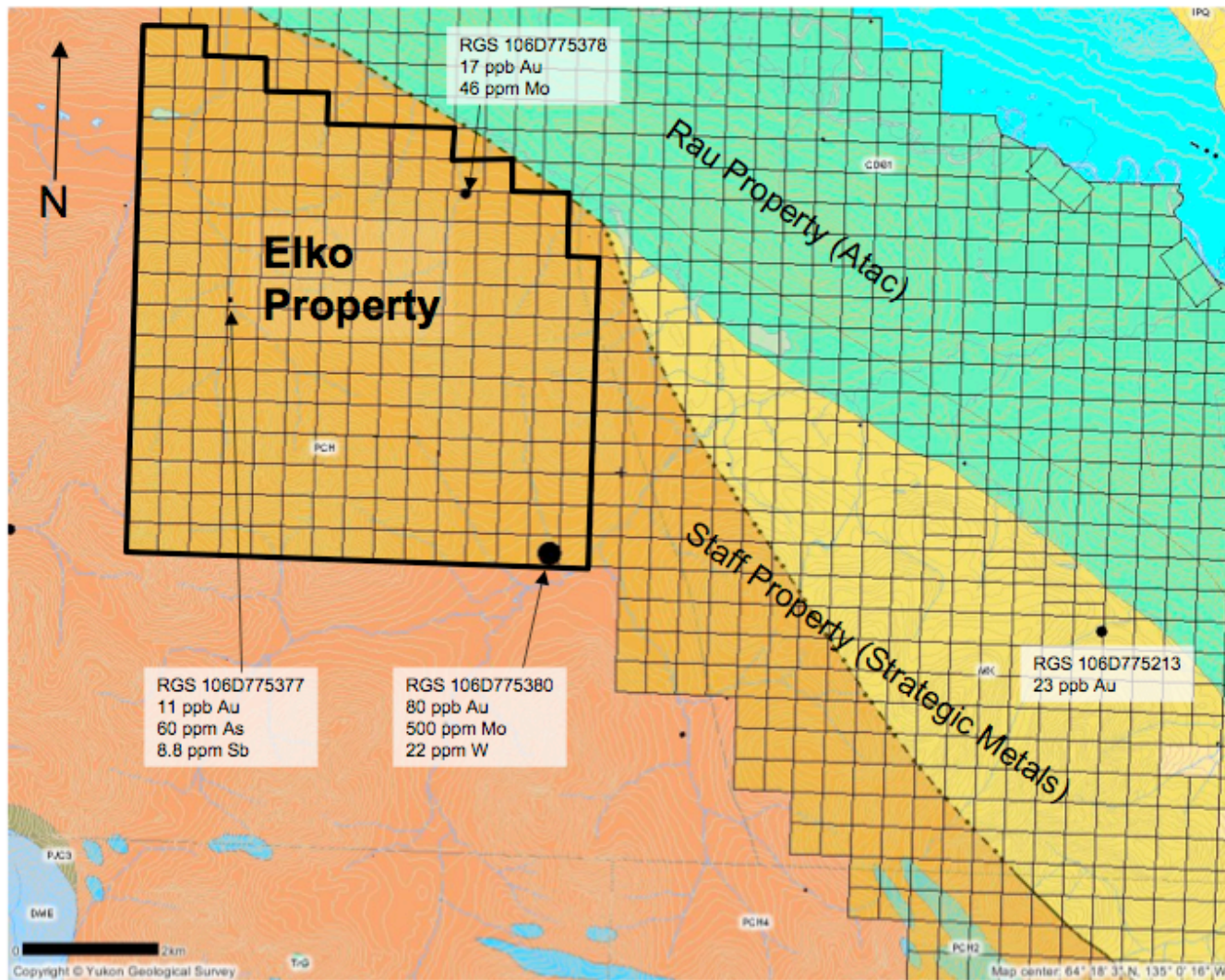


Figure 3. Regional geology map of Elko property area showing current Elko and Cow claims and anomalous Regional Geochemical Survey sample sites (after YGS Mapmaker website).

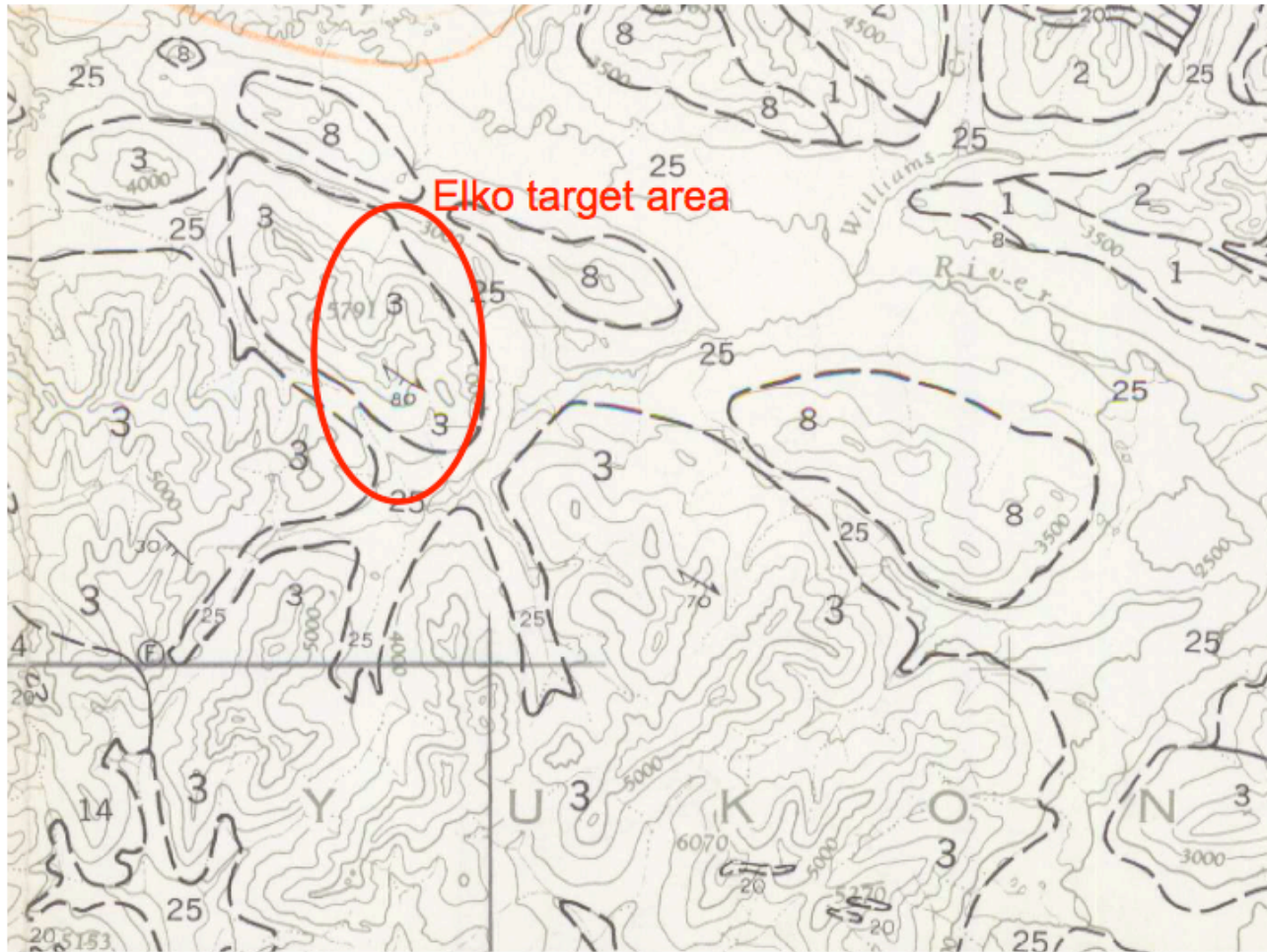


Figure 4. Regional geology of the Elko target area, after Green and Roddick, 1962 (GSC Map 15-1962).

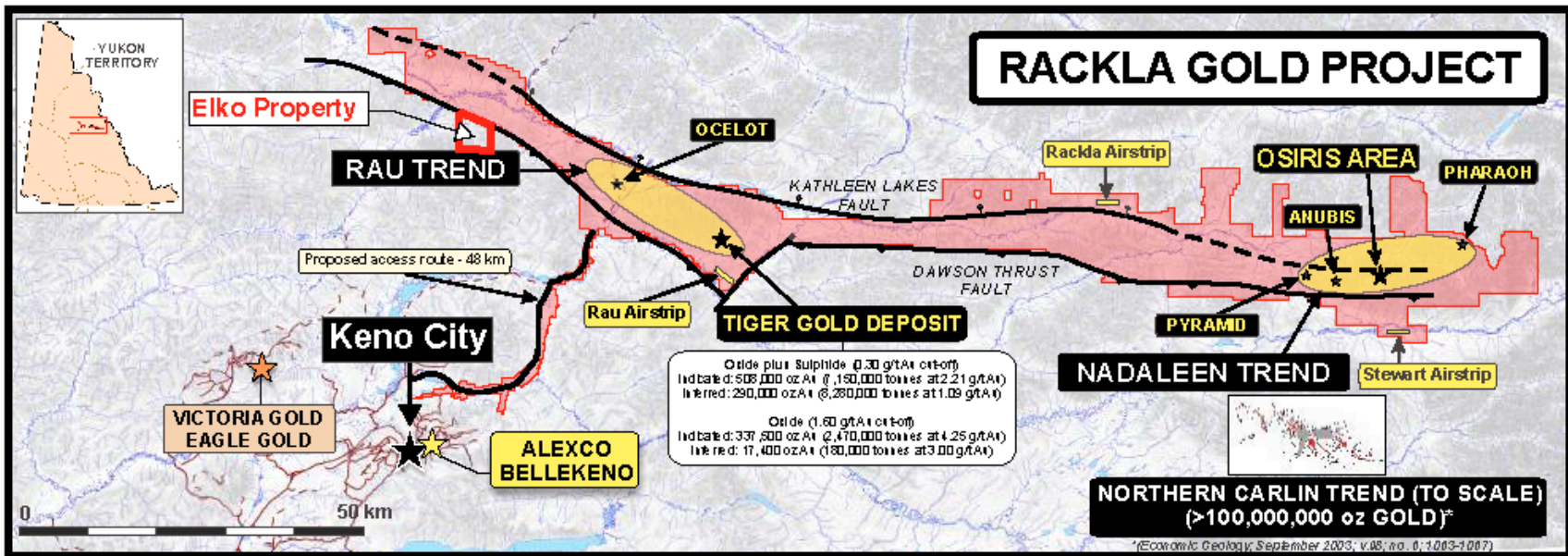


Figure 5: Location of Elko property at west end of Rau trend, Rackla gold belt (map courtesy of Atac Resources Ltd.).

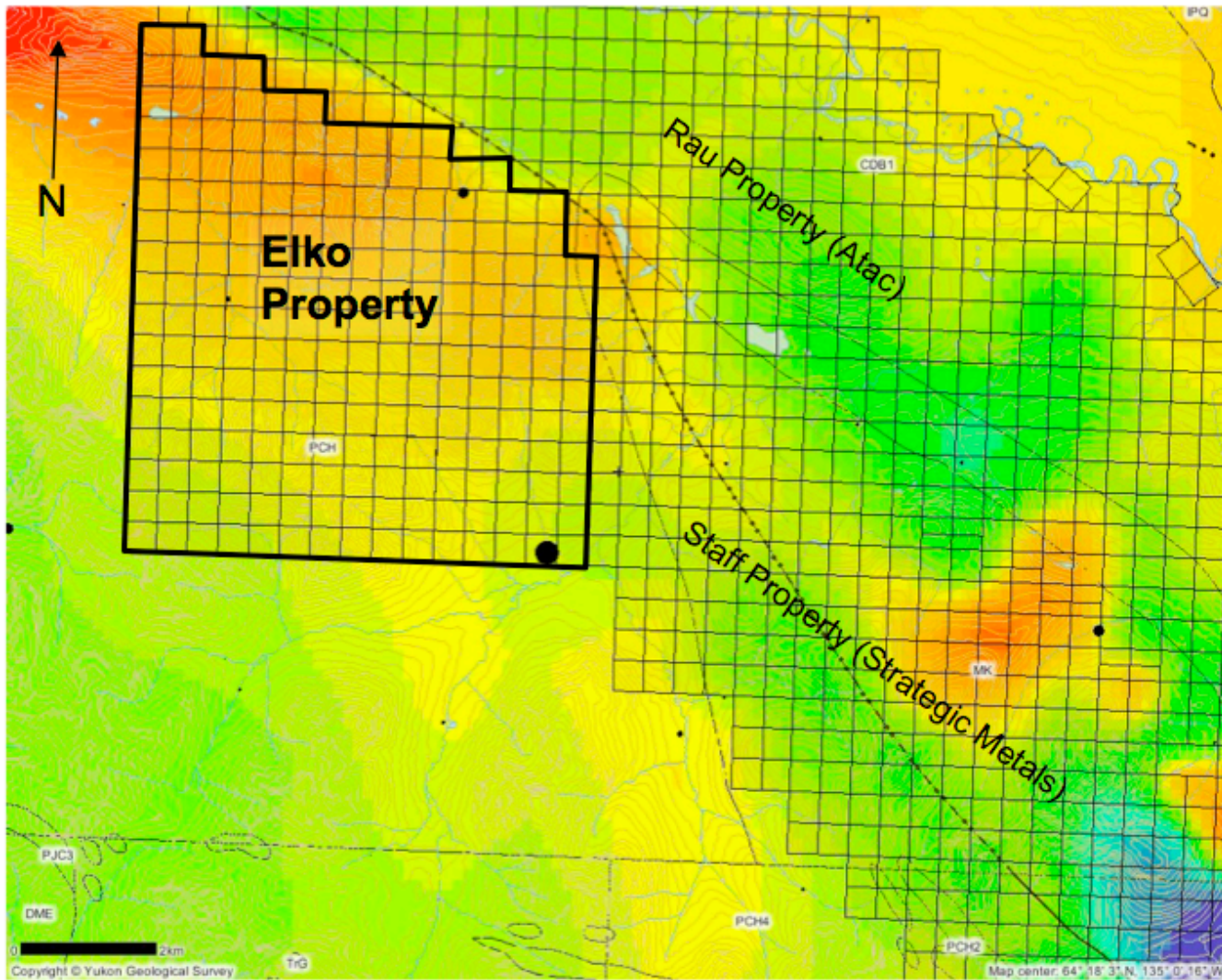


Figure 6. Regional total field aeromagnetics of the Elko property area (from YGS Mapmaker website).

## 8.0 2013 WORK PROGRAM

The prospecting and soil geochemical program was completed between July 21 and 24, 2013 by a team of two geologists and two prospectors (Mike Cathro, Adam Travis, Susan Tevendale and Shelly Spence). The crew was mobilized from Whitehorse and based at a motel in Mayo. Access to the property was accomplished by 206L helicopter chartered from Fireweed Helicopters in Mayo. Safety and communication in the field was assured through two-way radios and a satellite phone.

The work areas were chosen based on anomalous soil samples and geophysical features identified in the 2010 and 2011 work programs. Extra attention was paid to the area of anomalous 2010 soil sample ESA-018 on the Cow 4 claim (156 ppb Au, 1609 ppm As, 54.7 ppm Sb, 6.2 ppm Ag, 237 ppm Cu). Ridges and spurs were prospected for signs of sulphide and oxide mineralization, alteration (e.g. iron carbonate, silicification, decalcification, clay, jasperoid, etc.) and veining and structural disruption. Eleven samples of subcrop, float or outcrop were collected for assay in 2013.

A total of 111 contour soil samples were collected on ridges or contour lines with a nominal sample spacing of 50 m. Samples were taken from the B-horizon or C-horizon at depths of 10 to 40 cm. Scree was abundant and many of the samples were essentially talus fines.

Soil and rock samples were delivered to the ALS Minerals preparation facility in Whitehorse at the end of the program. Rocks were crushed and then a 250 g split was pulverized to >85% passing 75 microns. Soils were dried and sieved to 180 microns. For both rocks and soils, a 25 g split was digested in aqua regia and analyzed for Au by ICP-MS (ALS method Au-TL43). An additional 25 elements were determined by aqua regia digestion of a 1 g split followed by ICP-MS or ICP-OES analyses (ALS method ME-MS41).

Sample descriptions, geological observations and other field data were collected in field notebooks, field maps and on hand-held GPS units. Field data and sample descriptions were later transferred into excel tables and merged with analytical results (Appendix 1). Analytical certificates for all samples are included in Appendix 2.

## 9.0 RESULTS AND INTERPRETATION

Locations of all 2013 rock and soil samples are included as Figures 9 and 10 respectively. Results for all 2010 and 2013 have been combined for plotting purposes and are shown as graduated percentile symbol plots on Figures 11-14 for Au, As, Sb and Hg respectively. Thresholds for rocks were selected visually since there are too few samples for a statistical analysis. Thresholds for soils are shown as percentiles calculated using the combined 2010 and 2013 sample database (n=163) as follows:



Percentiles	Au ppm	As ppm	Sb ppm	Hg ppm
80	0.007	41.9	3.8	0.09
90	0.012	91.2	8.0	0.25
95	0.020	146.2	13.4	0.65
98	0.038	596.4	22.4	1.20
Max	0.156	1609.0	54.7	1.59

It should be noted that the 2010 and 2013 samples were run at different labs using different methods and may not be directly comparable. Comparative statistics have not been completed on the two datasets. In particular, Au for rocks was completed by 30 g fire assay with AA finish in 2010, and by direct aqua regia digestion of a 25 g split in the 2013 samples. Au in the 2010 soils was determined by aqua regia digestion of a 10 g split.

### **Prospecting Results**

Of the 11 rock samples collected in 2013, all were low in gold (maximum 5 ppb), however four samples were moderately anomalous in the pathfinders As and Sb. These came from targets on the Cow 4 and Cow 18 claims respectively:

#### *Cow 4 target*

Rock samples ERM13-001, 002, and 003 were collected directly west of a narrow north-trending ridge in the centre of the Cow 4 claim (Figure 9). The three samples are anomalous for pathfinders (173-240 ppm As and 5.2-9.0 ppm Sb; Appendix 1; Figures 12 and 13), were collected from orange weathering, siliceous and calcareous siltstone float or outcrop with traces of disseminated pyrite, and are located approximately 50 m west of and downhill of 2010 soil sample ESA-018 which is strongly anomalous for gold and pathfinder elements (156 ppb Au, 1609 ppm As, 54.7 ppm Sb, 6.2 ppm Ag, 237 ppm Cu). Although the gold values are low, the presence of anomalous As and Sb in orange-weathering altered sediment is promising, particularly since anomalous gold is found in soils nearby. Geophysically, the Cow 4 target sits on a prominent, northwest-trending coincident magnetic high / resistivity low. Additional prospecting is required.

#### *Cow 18 target*

Rock sample ERM13-006 is located in the NW corner of Cow 18 claim (Figure 9) and is described as an orange-weathering, pyritic siltstone. This rock returned 176 ppm As and 2.05 ppm Sb (Appendix 1; Figures 12 and 13). It occurs a few hundred metres SE of an orange-weathering calcareous, silty breccia unit which crosses the ridge on the boundary of the Cow 15/17 claims, and which returned weak As (160.8) and Au (10 ppb) in a 2010 15 m random chip sample. This unit appears to be the SE extension of the orange weathering, siliceous and calcareous siltstone at the Cow 4 target.

### **Soil Sampling Results**

#### *Cow 4-15 anomaly*

Three of the 111 samples collected in 2013 are anomalous for Au, As, and Sb (ESA13-001, 006 and 011). These samples returned 38 to 77 ppb Au, 36.7 to 1550 ppm As and

1.5 to 52.2 ppm Sb. They are clustered along a 500 m long trend extending in a southeasterly direction from 2010 soil sample ESA-018, which has 156 ppb Au and strong pathfinders, as described above. The trend extends from the Cow 4 claim onto Cow 13 and 15. The anomalous values are most extensive for Au (Figure 11) and As (Figure 12) and most tightly restricted for Sb (Figure 13).

#### *Cow 11-12-13 anomaly*

A second, broad and diffuse, low-order Au-As-Sb-Hg anomaly is present near the peak on Cow 13/14 claims. Samples from the lower slopes on Cow 11, taken in 2013, ranged up to 19 ppb Au, 127 ppm As and 31.9 ppm Sb (Figures 11, 12, 13). A 2010 sample on the ridge on Cow 13 returned 45 ppb Au (Figure 11). Steep terrain to the NW of the peak has limited sampling to the Cow 12-13-14 ridge and the lower slopes on Cow 11. Additional prospecting and soil sampling is warranted in this area.

#### *Elko 137-154 anomaly*

Anomalous Ag-in-soil values occur in five samples clustered on the ridge centred on the Elko 137 and 154 claims (Figure 10). Samples ESA13-036, 038, 039 and ESM13-20 and 21 have Ag values ranging from 1.52 to 4.83 ppm (90<sup>th</sup> to 98<sup>th</sup> percentile; Appendix 1). In addition, several of these these samples have highly anomalous base metal values such as Cu (to 148 ppm), Mo (to 36.6 ppm), Sb (to 16.8 ppm), and Zn (to 592 ppm). This area is underlain by black shale with local narrow quartz-calcite contains with minor sulphides. A high background metal content in the black shale is suspected to be the source of the anomalous values and no further work is recommended here.

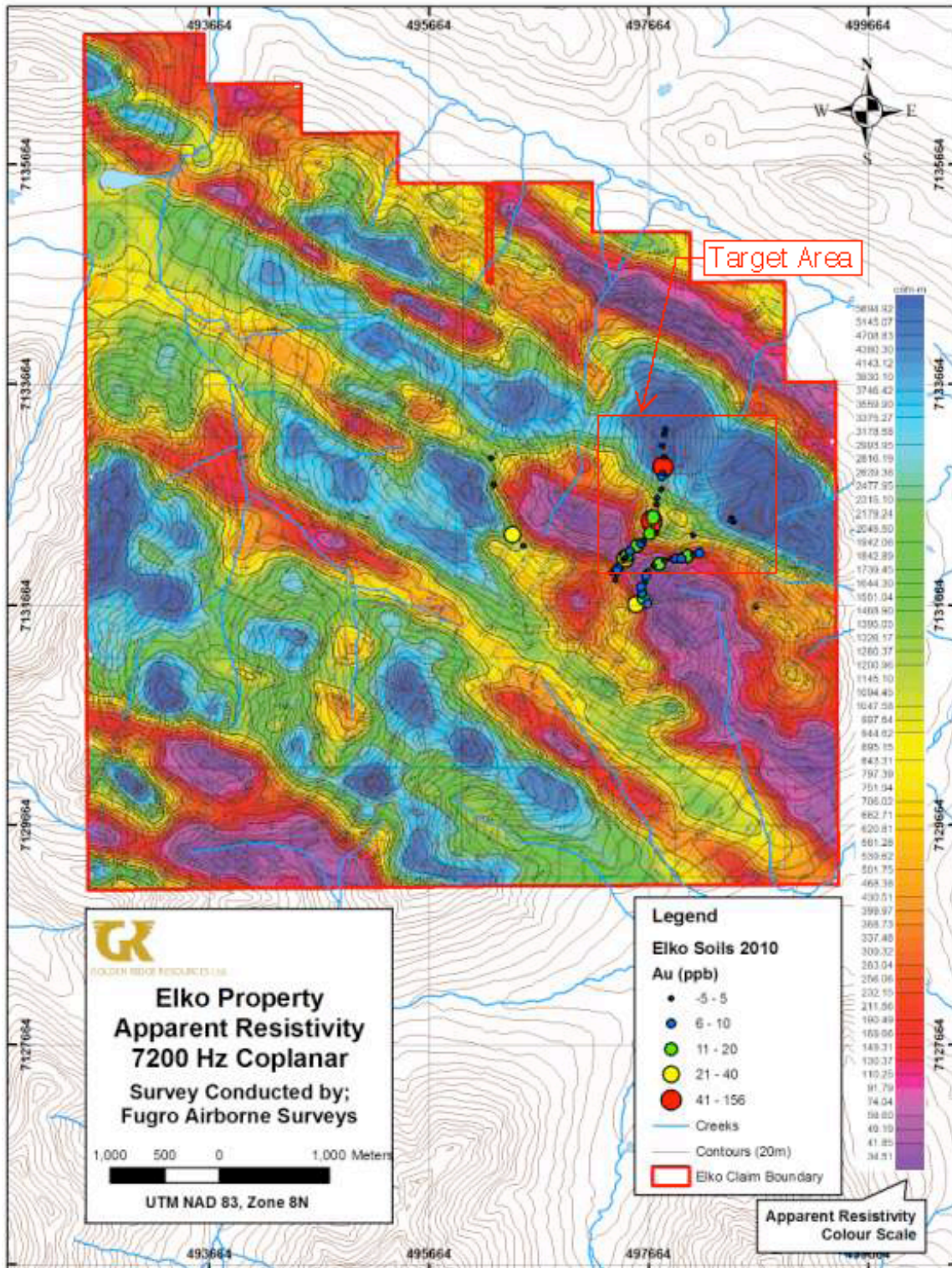


Figure 7. Apparent resistivity and 2010 gold in soil results (from Piepgrass, 2012).

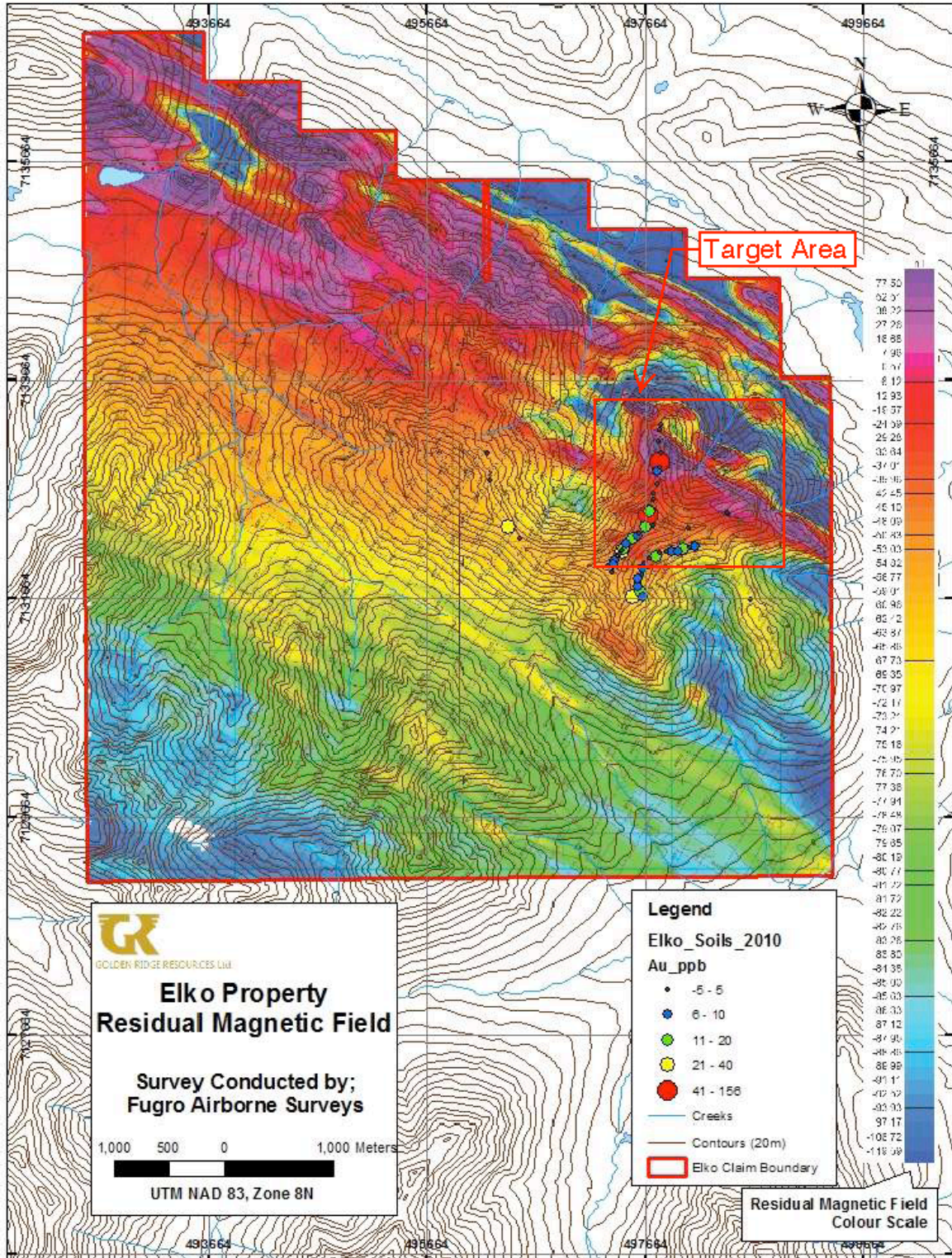


Figure 8. Residual magnetic field and 2010 gold in soil values (from Piegrass, 2012).

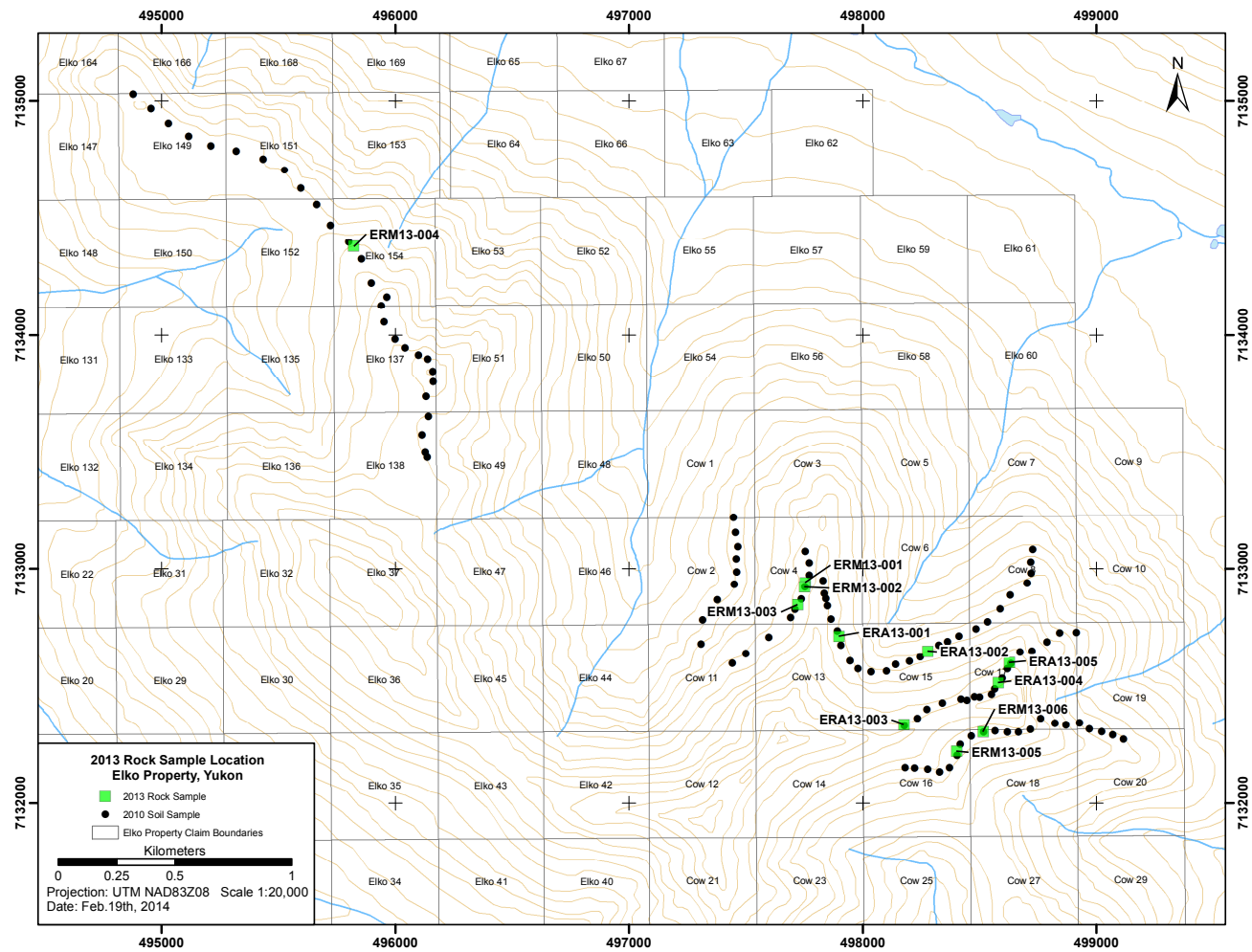


Figure 9. Rock Sample Location Map.

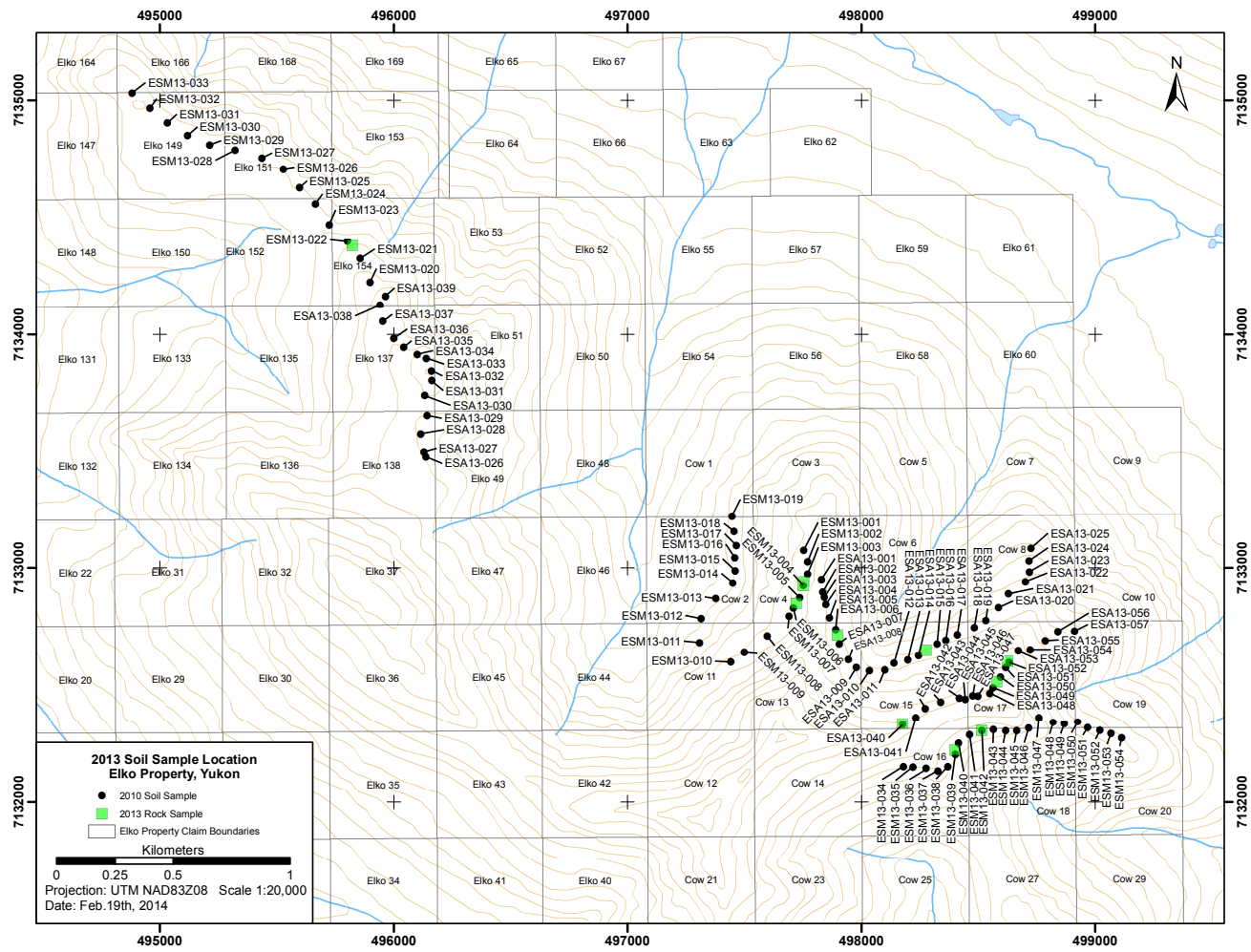


Figure 10. Soil Sample Location Map.

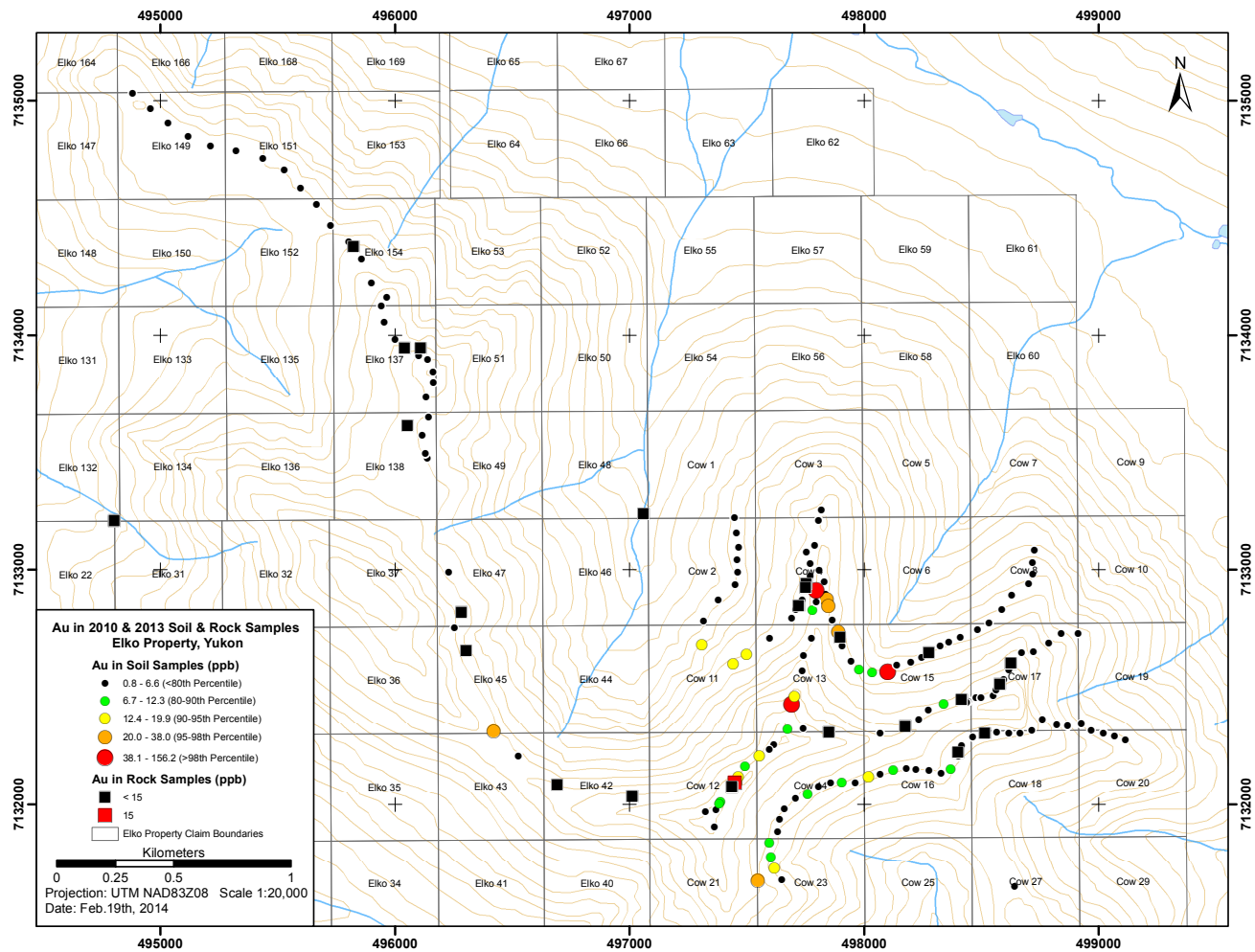


Figure 11. Gold in rock and soil samples (2010 and 2013 samples combined).

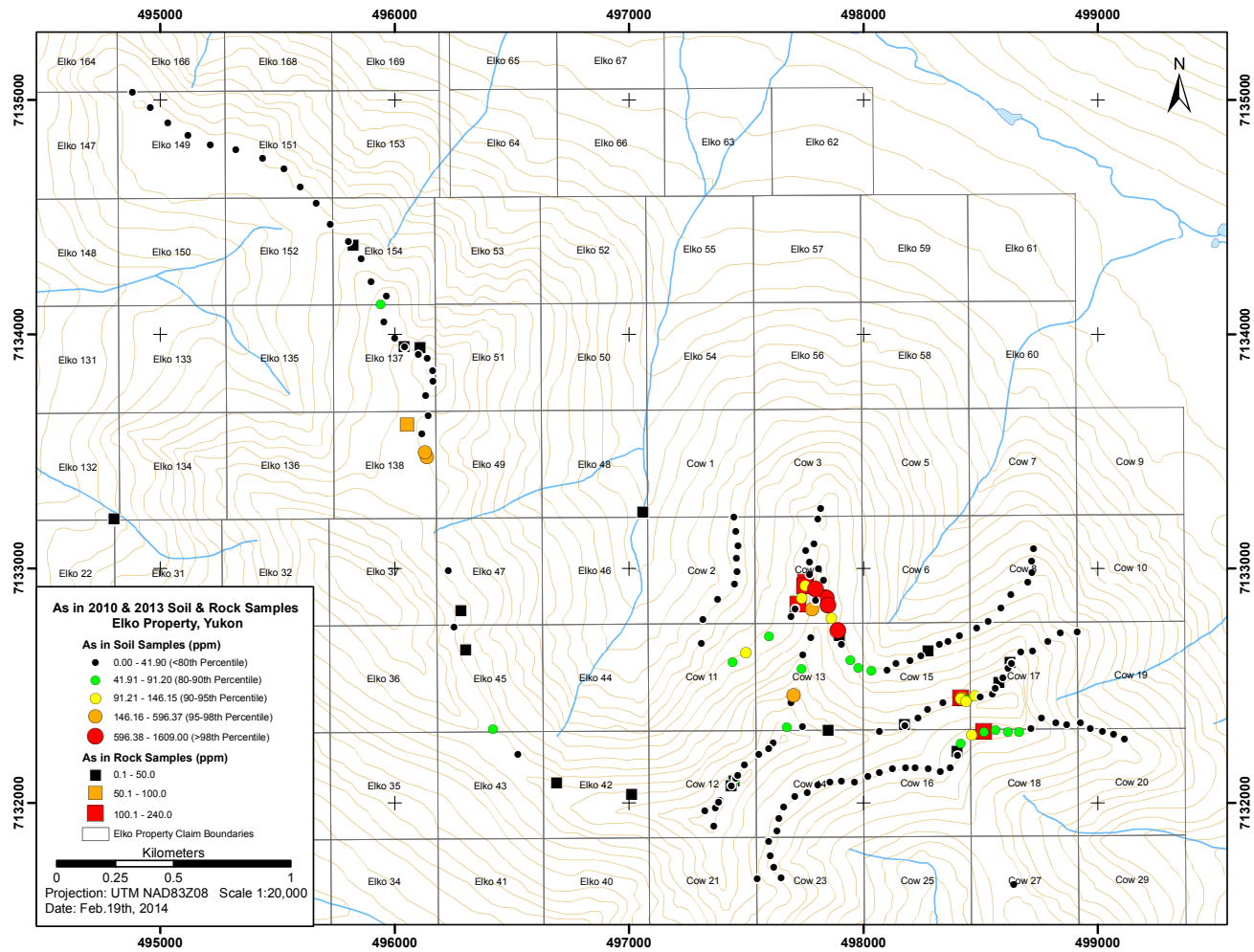


Figure 12. Arsenic in rock and soil samples (2010 and 2013 samples combined).



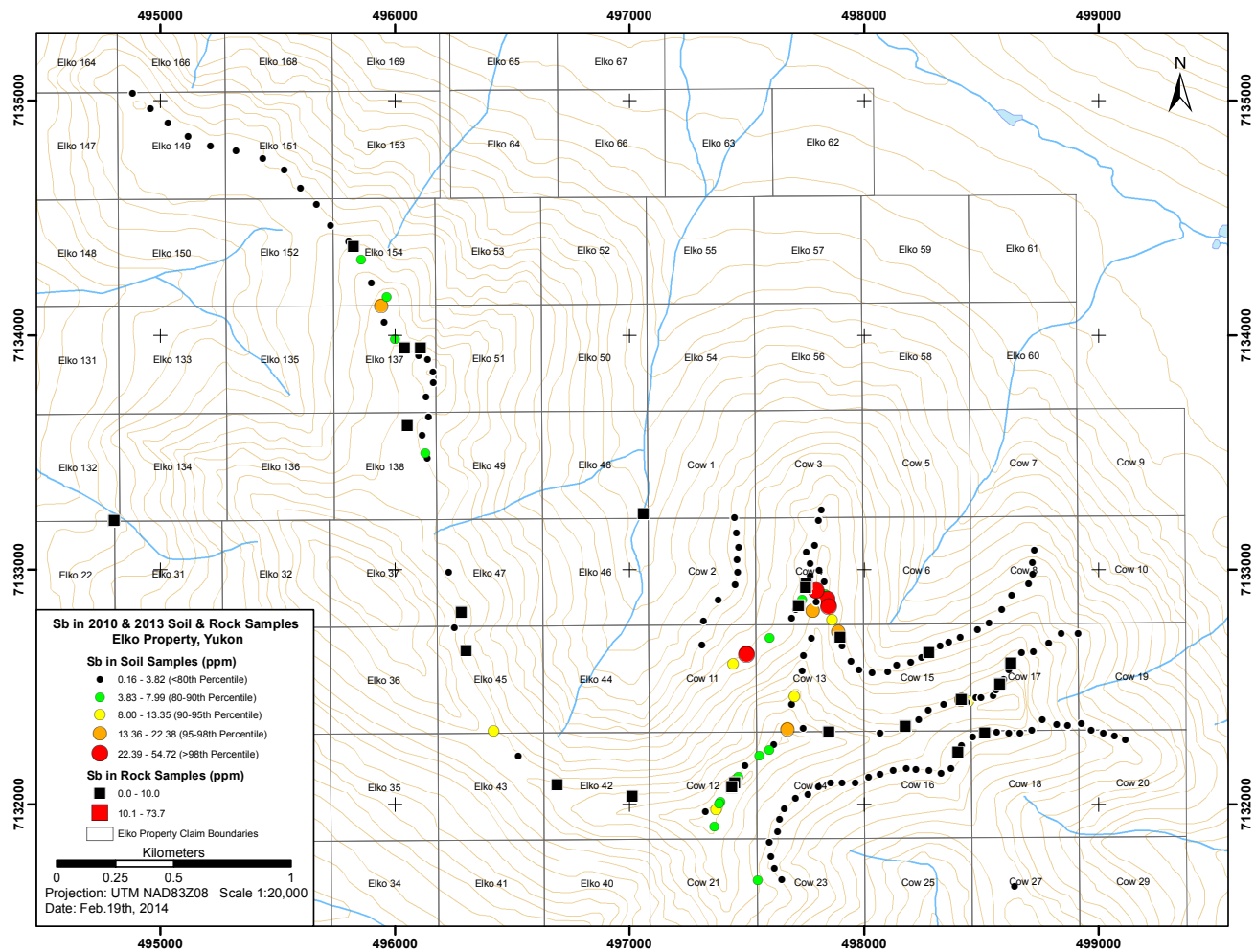


Figure 13. Antimony in rock and soil samples (2010 and 2013 samples combined).

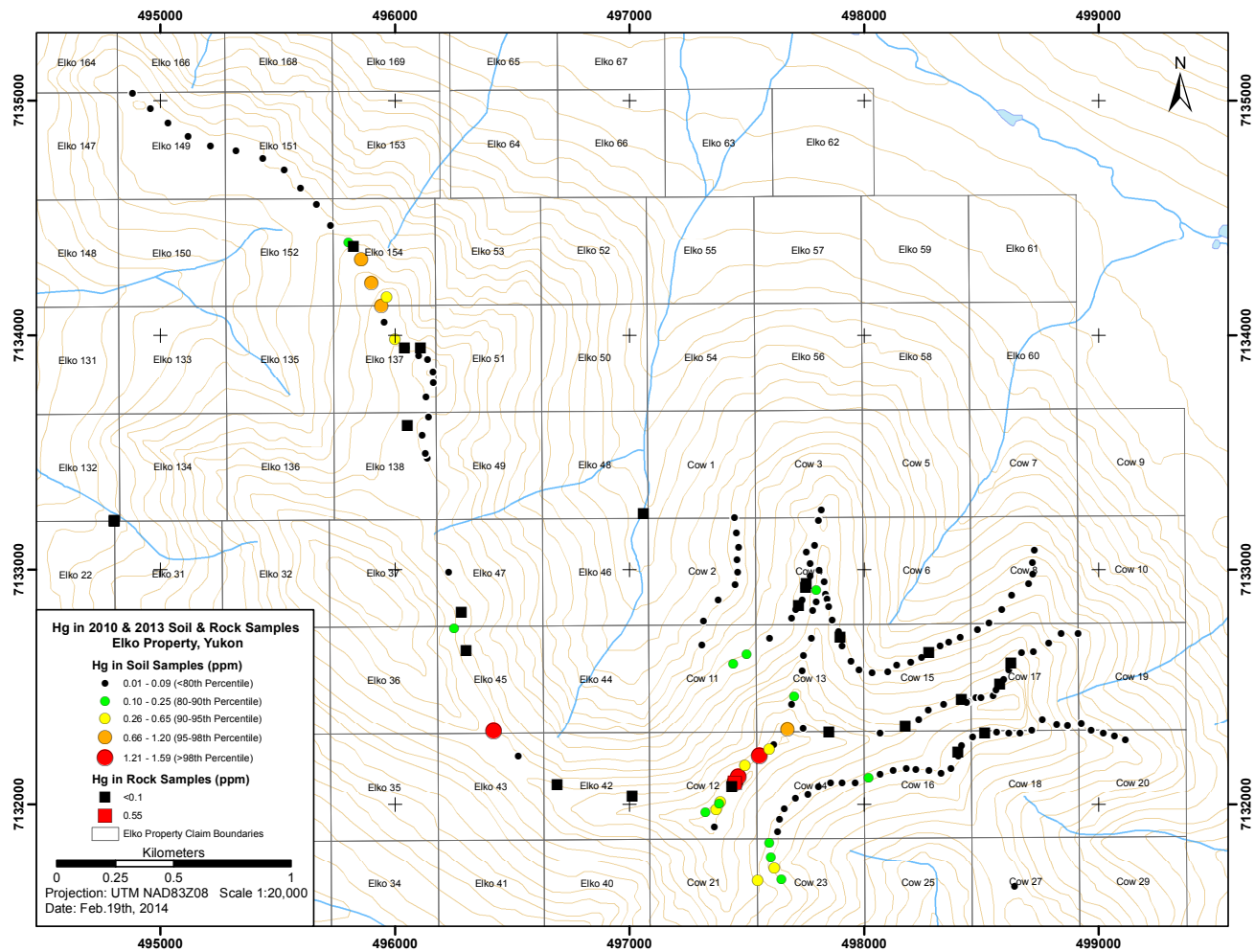


Figure 14. Mercury in rock and soil samples (2010 and 2013 samples combined).

## 10.0 SUMMARY AND RECOMMENDATIONS

The project was successful in confirming and extending several Au-As-Sb in soil anomalies. The anomalies are underlain by orange-weathering siliceous, pyritic and calcareous siltstones of the Proterozoic Hyland Group, which have anomalous As and Sb values. Unfortunately, the source of the gold-in-soil anomalies has not yet been identified. Nevertheless, the siliceous, pyritic, calcareous siltstones represent a good potential host for Carlin-style, sediment-hosted gold mineralization. Three priority targets for follow-up have been identified:

### *Cow 4-15 anomaly*

Three soil samples collected in 2013 are anomalous for Au, As, and Sb (38 to 77 ppb Au, 36.7 to 1550 ppm As and 1.5 to 52.2 ppm Sb). They are clustered along a 500 m long trend extending in a southeasterly direction from 2010 soil sample ESA-018, which has 156 ppb Au and strong pathfinders. The trend extends from the Cow 4 claim onto Cow 13 and 15.

Rock samples ERM13-001, 002, and 003 were collected directly west of a narrow north-trending ridge in the centre of the Cow 4 claim, and about 50 m west of the soil anomaly described above. The three rock samples are anomalous for pathfinders (173-240 ppm As and 5.2-9.0 ppm Sb), and were collected from orange weathering, siliceous and calcareous siltstone float or outcrop with traces of disseminated pyrite. Although the gold values are low, the presence of anomalous As and Sb in orange-weathering altered sediment is promising, particularly since anomalous gold is found in soils nearby. Geophysically, the Cow 4 target sits on a prominent, northwest-trending coincident magnetic high / resistivity low. Additional prospecting is required.

### *Cow 11-12-13 anomaly*

A second, broad and diffuse, low-order Au-As-Sb soil anomaly is present near the peak on Cow 13/14 claims. Samples from the lower slopes on Cow 11, taken in 2013, ranged up to 19 ppb Au, 127 ppm As and 31.9 ppm Sb. A 2010 sample on the ridge on Cow 13 returned 45 ppb Au. Steep terrain to the NW of the peak has limited sampling to the Cow 12-13-14 ridge and the lower slopes on Cow 11. Additional prospecting and soil sampling is warranted in this area.

### *Cow 18 target*

Rock sample ERM13-006 is located in the NW corner of Cow 18 claim (Figure 9) and is described as an orange-weathering, pyritic siltstone. This rock returned 176 ppm As and 2.05 ppm Sb. It occurs a few hundred metres SE of an orange-weathering, calcareous, silty breccia unit which crosses the ridge on the boundary of the Cow 15/17 claims, and which returned weak As (160.8) and Au (10 ppb) in a 15 m random chip sample in 2010. This unit appears to be the SE extension of the orange weathering, siliceous and calcareous siltstone at the Cow 4 target.

## 11.0 QUALIFICATIONS

I, Michael S. Cathro, of 2560 Telford Place, Kamloops, British Columbia, hereby certify that:

- I have been a registered professional geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) since 1992 (Reg.# 19093).
- I am a graduate of Queens University, Kingston, Ontario with a B.Sc (Honours) in Geological Sciences (1984), and a graduate of the Colorado School of Mines, Golden, Colorado with a M.Sc. in Geology (1992). My Master's thesis topic was the Geology and Mineral Deposits of the Ketz River District, Yukon Territory.
- I am presently employed as a consulting geologist, President of Cathro Resources Corp., Kamloops, BC, and Vice-President of Virginia Energy Resources Inc and Anthem Resources Inc.
- I have been working as a professional geologist in mineral exploration, exploration management, geological research, and administration of mine and exploration permitting and compliance on a semi-continuous basis since 1984.
- My career has given me experience in precious and base metal, industrial minerals, uranium, coal, tantalum-niobium, and rare earth element exploration primarily in British Columbia, Yukon, Western USA, Australia and the southwest Pacific.
- I have published numerous research papers and made presentations on the geology of porphyry copper-gold-molybdenum, epithermal gold, and intrusion related gold deposits, and exploration topics, primarily in British Columbia.



Michael S. Cathro, M.Sc., P.Geo.  
March 18, 2014

## 12.0 REFERENCES

Cathro, M.S. (2011): Assessment Report on Geochemical Prospecting on the Elko Property, comprised of Cow 1-38, and Elko 1-67 Claims, Mayo Mining District, Yukon Territory, NTS 106D/07.

Pieprgrass, K.E. (2012): 2011 Assessment Report, Elko Project, Yukon, Canada, NTS 106D/06 and 106D/07, Mayo Mining District.

## Appendix 1

### Sample Descriptions and Analytical Results

Appendix 1a: 2013 Elko Rock Sample Descriptions and Results

Sample Number	NAD83Z	Easting	Northing	Alt_m	Yr	Date	Rock mater	Sample type	Width_m	Colour	Texture	Rock_type	Mineralization	Alteration
ERA13-001	8	497897	7132712		2013	22-Jul-13	float	grab				quartz vein	ZnS?	FeOx
ERA13-002	8	498277	7132648		2013	22-Jul-13	float?	grab				shale	Py	
ERA13-003	8	498175	7132336		2013	23-Jul-13	float?	grab		Grey		quartz stockwork		
ERA13-004	8	498578	7132515		2013	23-Jul-13	float?	grab		Rusty		altered volcanic	Py	
ERA13-005	8	498625	7132601		2013	23-Jul-13	float?	grab				quartz vein	Cpy	
ERM13-001	8	497754	7132942		2013	22-Jul-13	float	grab		orange		calcareous siltstone		silica, carbonate, FeOx
ERM13-002	8	497750	7132924		2013	22-Jul-13	float - scree	grab		grey & orange		siltstone	trace py	silica, carbonate, FeOx
ERM13-003	8	497721	7132848		2013	22-Jul-13	outcrop	grab		grey-green & orange		siltstone with quartz veins	trace py	silica, carbonate, FeOx
ERM13-004	8	495823	7134379		2013	22-Jul-13	float	grab		gray + yellow-red		siltstone	vuggy FeOx	
ERM13-005	8	498401	7132221		2013	23-Jul-13	float	grab		rusty		quartz vein	FeOx	
ERM13-006	8	498514	7132304		2013	23-Jul-13	float	grab		orange-brown + grey		limy siltstone	Py, FeOx, fine black veinlets	

\*2013 samples; Au by ALS Minerals method AU-TL43; 25 g aqua regia digestion followed by ICP-MS

2013 samples; All other elements by ALS Minerals method ME-MS41 (ICP-MS or ICP-OES)

Appendix 1a: 2013 Elko Rock Sample Descriptions and Results

Sample Number	Description	Ag_ppm	Al_Perc	As_ppm	Au_ppm	B_ppm	Ba_ppm	Be_ppm	Bi_ppm	Ca_Perc	Cd_ppm
ERA13-001	WP 24, quartz, vein float, 30 by 10 cm thick, rusty fractures with ZnS?	0.07	0.1	2.6	0.01	5	10	0.12	0.6	0.02	0.005
ERA13-002	wp 35 black sulfidized shale	0.25	1.47	1.3	0.01	5	210	1.11	0.37	1.47	0.04
ERA13-003	wp 64, grey quartz stockwork	0.04	0.32	6.8	0.01	5	40	0.09	0.06	0.11	0.22
ERA13-004	wp 75 rusty, sulfide, grey "rusty quartz pyrite altered volcanic"	0.05	1.31	0.6	0.01	5	160	0.8	0.16	0.67	0.02
ERA13-005	wp 78 cpy coarse bleb in quartz vein	0.19	0.06	0.1	0.01	5	30	0.025	0.005	5.5	0.21
ERM13-001	rock float, orange weathering, siliceous and calcareous fx siltstone or silty limestone	0.21	0.67	173	0.01	5	380	0.7	0.06	11.2	0.28
ERM13-002	scree; orange weathering, grey siliceous calcareous rock, trace py	0.17	0.32	240	0.01	5	250	0.47	0.03	8.52	0.1
ERM13-003	outcrop; orange weathering, siliceous, calcaerous, grey-green siltstone. 2% quartz veins, trace pyrite, foliation subvertical @ 120 °	0.05	0.31	222	0.01	5	300	0.33	0.06	16.75	0.13
ERM13-004	pale yellow-red iron oxide vuggy float within grey siltstone ledges	0.34	1.71	2.1	0.01	5	610	1.12	1.68	1.39	0.07
ERM13-005	rusty quartz float	0.04	0.56	6.1	0.01	5	60	0.13	0.04	0.23	0.07
ERM13-006	float; orange-brown weathering, grey limy siltstone; trace disseminated pyrite, fine black veinlets	0.07	1.37	176	0.01	5	100	0.17	0.15	3.94	0.13

\*2013 samples; Au

2013 samples; All c



Appendix 1a: 2013 Elko Rock Sample Descriptions and Results

Sample Number	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_Perc	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K_Perc	La_ppm	Li_ppm	Mg_Perc	Mn_ppm	Mo_ppm	Na_Perc	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm
ERA13-001	15.65	1.7	14	0.025	14.5	0.73	0.25	0.025	0.01	0.01	0.0025	0.01	7.8	1.3	0.02	101	0.23	0.005	0.025	3.7	30	43.1	0.6
ERA13-002	100.5	42.4	113	0.37	128	3.94	7.3	0.17	0.31	0.04	0.033	0.41	53.3	16.1	1.07	207	5.66	0.03	8.25	70.4	4900	29.2	13.6
ERA13-003	9.15	4.8	21	0.07	35.6	1.2	1.28	0.025	0.07	0.01	0.006	0.02	4.7	12.2	0.13	1150	0.51	0.005	0.11	18	520	2.3	1.2
ERA13-004	52.9	11.3	75	4.72	217	6.8	5.39	0.19	0.43	0.01	0.081	0.45	29.3	8.8	1.41	827	0.33	0.05	3.38	26.1	1420	2.9	24.7
ERA13-005	7.61	3.6	14	0.025	623	0.68	0.3	0.025	0.01	0.02	0.076	0.02	3.6	1	0.05	359	0.33	0.005	0.09	13.8	70	0.9	0.5
ERM13-001	66.5	40.9	33	0.57	121.5	7.12	2.9	0.14	0.2	0.03	0.065	0.35	35.5	9.7	2.59	1200	0.46	0.02	0.27	106.5	3270	5.4	9.7
ERM13-002	69.8	29	33	0.17	23.1	5.98	2.01	0.13	0.17	0.02	0.061	0.14	37.5	4.6	1.94	1300	0.28	0.04	0.3	71.8	3500	7.2	3.6
ERM13-003	34.3	35.5	50	0.09	36.6	6.76	1.5	0.11	0.07	0.02	0.071	0.2	19	3.9	2.59	1720	0.12	0.01	0.16	179.5	1700	12.3	3.4
ERM13-004	68.5	66.6	134	0.2	587	16.5	8.58	0.26	0.46	0.02	0.053	0.29	35.3	11.8	1.05	851	6.95	0.03	6.03	57.2	4820	14.6	7
ERM13-005	11.7	2.9	19	0.12	22.1	1.42	1.74	0.025	0.05	0.01	0.005	0.05	5.5	18.5	0.3	76	0.28	0.01	0.05	20.4	160	5.8	2.4
ERM13-006	34.4	32.2	99	0.41	55.7	8.63	5.36	0.15	0.05	0.01	0.053	0.06	17.2	41.1	3.04	1940	0.72	0.09	0.11	158	1770	6.5	2.3

\*2013 samples; Au

2013 samples; All c

Appendix 1a: 2013 Elko Rock Sample Descriptions and Results

Sample Number	Re_ppm	S_Perc	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_Perc	Ti_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Au_ppm*	Certificate
ERA13-001	0.0005	0.01	0.12	0.4	0.01	0.01	1.5	0.005	0.03	1.1	0.0025	0.01	0.23	0.5	0.025	0.65	6	0.8	0.0005	WH13135202
ERA13-002	0.011	1.14	2.19	4.7	1.8	0.7	182.5	0.05	0.09	5.6	0.434	0.05	2.36	100	0.27	15.9	47	21.4	0.001	WH13135202
ERA13-003	0.0005	0.01	0.65	1.3	0.4	0.01	31.4	0.005	0.03	0.7	0.0025	0.01	0.33	14	0.025	4.18	36	3.1	0.001	WH13135202
ERA13-004	0.0005	1.07	1.4	8.3	1.8	0.9	96	0.02	0.03	4.4	0.434	0.03	0.32	79	0.51	9.73	39	9.5	0.002	WH13135202
ERA13-005	0.0005	0.06	0.05	2.8	0.2	0.01	309	0.005	0.01	0.01	0.0025	0.01	0.08	4	0.025	3.11	9	0.25	0.0005	WH13135203
ERM13-001	0.001	0.15	5.24	14.1	0.6	0.01	526	0.01	0.04	3.4	0.014	0.05	0.64	41	0.09	15.1	109	8.9	0.003	WH13135202
ERM13-002	0.001	0.64	9.02	9.2	0.7	0.01	720	0.01	0.03	3.2	0.007	0.01	0.39	31	0.1	15	78	6.8	0.003	WH13135202
ERM13-003	0.0005	0.1	2.44	12.7	0.6	0.01	1005	0.01	0.04	1.3	0.0025	0.01	0.11	16	0.06	15.45	88	1.6	0.001	WH13135202
ERM13-004	0.0005	0.14	1.45	7.3	1.1	0.6	113.5	0.08	0.05	3.3	0.393	0.04	0.42	121	0.24	12.6	46	16.2	0.004	WH13135202
ERM13-005	0.0005	0.01	0.71	1.1	0.3	0.01	13.3	0.005	0.01	1.4	0.0025	0.01	0.22	9	0.025	0.83	42	2.1	0.001	WH13135202
ERM13-006	0.0005	0.01	2.05	12.7	0.4	0.01	173	0.01	0.03	1.2	0.0025	0.01	0.19	53	0.05	12.4	128	1.1	0.001	WH13135202

\*2013 samples; Au

2013 samples; All c

Elko 2013 Soil Descriptions and Results

Sample #	NAD83Z	Easting	Northing	Alt_m	Yr	Date	Depth (cm)	Horizon	Colour	Texture	Description	Ag_ppm	Al_Perc	As_ppm	Au_ppm	B_ppm	Ba_ppm	Be_ppm	Bi_ppm
ESA13-001	8	497829	7132951		2013	22-Jul-13			Black	organic, permafrost	WP 17, black organic permafrost	0.04	0.87	5.6	0.1	5	170	0.32	0.04
ESA13-002	8	497834	7132898		2013	22-Jul-13				talus	wp 18, talus slope, mix Fe carb	0.08	3.91	39.5	0.1	5	620	2.17	0.06
ESA13-003	8	497842	7132876		2013	22-Jul-13			orange-brown		wp 19, orange/br soil, quartz carb veinlets?	0.34	2.18	615	0.1	5	200	1.31	0.14
ESA13-004	8	497848	7132845		2013	22-Jul-13			orange-brown		wp 21, orange/br soil	0.28	1.49	1140	0.1	5	230	1.08	0.2
ESA13-005	8	497863	7132788		2013	22-Jul-13			grey-green	rocks	wp 22, grey rocks, green shale with high SX	0.07	4.2	135	0.1	5	1160	3.09	0.07
ESA13-006	8	497890	7132737		2013	22-Jul-13			grey-orange	boulders	wp 23, big boulders, mix gr/orange	0.14	2.9	1550	0.1	5	550	1.73	0.06
ESA13-007	8	497906	7132676		2013	22-Jul-13			greenish		wp 25, greenish outcrop	0.07	3.42	28.9	0.1	5	540	1.78	0.17
ESA13-008	8	497944	7132609		2013	22-Jul-13			grey-blue	pebbles-rocks	wp 26, grassy green slope, grey blue rocks/pebbles	0.07	2.23	44.4	0.1	5	40	0.5	0.58
ESA13-009	8	497978	7132575		2013	22-Jul-13			black-grey shale with yellow-green stain		wp 27 black/grey shale with yellow green stain; scorodite	0.58	1.27	42.3	0.1	5	140	0.34	0.53
ESA13-010	8	498034	7132562		2013	22-Jul-13			grey-green	rocky	wp 28, grey/green shale rock with quartz	0.08	1.85	43.3	0.1	5	50	0.57	0.55
ESA13-011	8	498100	7132565		2013	22-Jul-13			grey-black	rocky	grey/black shale	0.1	2.33	36.7	0.1	5	110	0.76	0.57
ESA13-012	8	498139	7132595		2013	22-Jul-13			rusty	rocky	wp 30, come around to see rusty blocks	0.05	3.72	15.8	0.1	5	820	1.93	0.08
ESA13-013	8	498199	7132608		2013	22-Jul-13			grey		wp 33, grey, no rusty	0.06	4.42	24	0.1	5	780	3.01	0.07
ESA13-014	8	498245	7132627		2013	22-Jul-13			grey-green	rocky	wp 34, grey-green; crossed little creek, took pic of plated	0.03	3.31	6.8	0.1	5	380	1.38	0.05
ESA13-015	8	498324	7132676		2013	22-Jul-13			grey-green	rocky	wp 36, grey/green foliated rock	0.1	3.61	7.5	0.1	5	250	1.59	0.1
ESA13-016	8	498361	7132690		2013	22-Jul-13			grey-green		wp 37 in brush, grey/green	0.04	4.16	5.1	0.1	5	180	1.71	0.07
ESA13-017	8	498410	7132715		2013	22-Jul-13			grey-green		wp 38 in mossy bush, grey/green	0.05	4.32	2.7	0.1	5	1130	1.87	0.06
ESA13-018	8	498483	7132745		2013	22-Jul-13			grey-green	rocky	wp 39 - grey green rock	0.05	4.15	4.5	0.1	5	450	1.51	0.07
ESA13-019	8	498532	7132776		2013	22-Jul-13			grey		wp 40 - grey; across a side hill	0.04	3.95	9.3	0.1	5	820	1.21	0.04
ESA13-020	8	498586	7132832		2013	22-Jul-13			grey; rusty		wp 41 - grey, occasional rusty piece	0.03	3.76	1.6	0.1	5	740	1.43	0.03
ESA13-021	8	498629	7132890		2013	22-Jul-13			green		wp 42, soily green rock	0.05	3.5	0.9	0.1	5	280	1.22	0.04
ESA13-022	8	498702	7132942		2013	22-Jul-13			grey	rocky	wp 43 - on ridge, grey rock	0.07	2.67	8.6	0.1	5	280	1.59	0.14
ESA13-023	8	498718	7132984		2013	22-Jul-13					wp 44 - down ridge, base of small bluff	0.16	2.94	5.5	0.1	5	350	1.34	0.11
ESA13-024	8	498717	7133032		2013	22-Jul-13			grey		wp 45 - down ridge, grey	0.12	2.93	7	0.1	5	140	1.37	0.13
ESA13-025	8	498726	7133086		2013	22-Jul-13					wp 46 - down ridge	0.09	3.35	1.7	0.1	5	110	2.23	0.1
ESA13-026	8	496138	7133476		2013	22-Jul-13			rusty, orange-brown		new spot - to ridge to west by Heli. Wp 47, rusty orange t	0.09	1.23	146.5	0.1	5	390	0.68	0.11
ESA13-027	8	496129	7133497		2013	22-Jul-13			rusty, orange-brown		wp 48, over hill rusty orange brown	0.07	0.88	161.5	0.1	5	320	0.38	0.09
ESA13-028	8	496116	7133574		2013	22-Jul-13			more grey		wp 49 - lost rusty more grey grassy saddle	0.06	3.9	11.3	0.1	5	1190	1.65	0.06
ESA13-029	8	496143	7133653		2013	22-Jul-13				clay	wp 50 +51 glacier clay	0.12	6.46	20.9	0.1	5	1020	3.12	0.11
ESA13-030	8	496133	7133737		2013	22-Jul-13			grey		wp 52 start of hill, grey, coming up slope	0.07	3.14	6.3	0.1	5	400	1.35	0.07
ESA13-031	8	496164	7133800		2013	22-Jul-13			grey		wp 53 - on hill side, grey	0.14	2.15	14.5	0.1	5	590	0.57	0.13
ESA13-032	8	496162	7133845		2013	22-Jul-13			grey		wp 54 + 55, foliated top of ridge, grey	0.23	1.66	7.6	0.1	5	430	0.32	0.08
ESA13-033	8	496140	7133898		2013	22-Jul-13					wp 56 top of mountain	0.19	2.2	7.8	0.1	5	490	0.52	0.1
ESA13-034	8	496101	7133915		2013	22-Jul-13					wp 57 - sloping downward westside down ridge, limey rod	0.09	2.89	8.3	0.1	5	570	0.6	0.09
ESA13-035	8	496043	7133945		2013	22-Jul-13					wp 59, quartz carbonate vein, "old sample ERM 005"	0.18	1.88	36	0.1	5	890	0.66	0.09
ESA13-036	8	496001	7133982		2013	22-Jul-13			greyish		wp 59 - shale greyish	1.52	2.02	17.9	0.1	5	440	0.52	0.15
ESA13-037	8	495953	7134055		2013	22-Jul-13					wp 60 on down slope, shale	0.13	3.2	12.2	0.1	5	410	0.29	0.07
ESA13-038	8	495941	7134127		2013	22-Jul-13			grey		wp 61 shale, grey	2.38	1.62	49.9	0.1	5	320	0.41	0.19
ESA13-039	8	495966	7134164		2013	22-Jul-13					wp 62, shale	1.75	1.42	21.6	0.1	5	610	0.56	0.2
ESA13-040	8	498176	7132332		2013	23-Jul-13			grey		wp 63, on heli landing in saddle on top ridge, grey shale/cl	0.07	1.41	16.7	0.1	5	70	0.32	0.31
ESA13-041	8	498233	7132362		2013	23-Jul-13			black		wp 65 - black shale	0.05	1.75	25.1	0.1	5	60	0.35	0.67
ESA13-042	8	498274	7132401		2013	23-Jul-13			black-grey		wp 66 - black/grey shale	0.04	2.08	14.6	0.1	5	100	0.41	0.35
ESA13-043	8	498339	7132428		2013	23-Jul-13			green-maroon		wp 67 - green/maroon schist	0.03	1.53	5	0.1	5	50	0.5	0.19
ESA13-044	8	498419	7132445		2013	23-Jul-13					wp 68 - on top of ridge, foliated volcanics. Wp 69 - top of	0.07	1.3	227	0.1	5	390	0.28	0.14
ESA13-045	8	498444	7132441		2013	23-Jul-13					wp 70 - same as last sample, eastern contact	0.1	0.96	71.2	0.1	5	510	0.35	0.13
ESA13-046	8	498476	7132455		2013	23-Jul-13					wp 71 - out of rusty	0.14	1.47	139.5	0.1	5	350	0.48	0.13
ESA13-047	8	498498	7132454		2013	23-Jul-13					wp 73	0.1	1.99	10.2	0.1	5	360	0.72	0.18
ESA13-048	8	498549	7132466		2013	23-Jul-13					wp 72 on top (very top) of ridge, ridge splits	0.04	3.53	9.7	0.1	5	690	1.96	0.13
ESA13-049	8	498563	7132489		2013	23-Jul-13					wp 74 - shaley, downhill	0.07	3.73	6.4	0.1	5	300	1.85	0.09

Elko 2013 Soil Descriptions and Results

Sample #	NAD83Z	Easting	Northing	Alt_m	Yr	Date	Depth (cm)	Horizon	Colour	Texture	Description	Ag_ppm	Al_Perc	As_ppm	Au_ppm	B_ppm	Ba_ppm	Be_ppm	Bi_ppm
ESA13-050	8	498595	7132535		2013	23-Jul-13			grey		wp 76 - grey foliated	0.1	3.27	7.2	0.1	5	570	2.02	0.13
ESA13-051	8	498617	7132575		2013	23-Jul-13			grey		wp 77 0 grey limy volcanic	0.07	4	9.4	0.1	5	280	1.46	0.11
ESA13-052	8	498632	7132598		2013	23-Jul-13					wp 79 soil taken with rock sample ERA13-005 abundant	0.06	4.06	30.1	0.1	5	290	1.22	0.06
ESA13-053	8	498671	7132646		2013	23-Jul-13			grey		wp 80 - grey, downhill from quartz	0.04	2.92	4.4	0.1	5	690	1.04	0.12
ESA13-054	8	498722	7132651		2013	23-Jul-13					wp 81 - grassy ridge	0.05	3.15	2.5	0.1	5	880	1.23	0.05
ESA13-055	8	498787	7132689		2013	23-Jul-13					wp 82 - grassy ridge, mix organics, limy volcanic	0.09	3.27	3.3	0.1	5	470	1.38	0.04
ESA13-056	8	498840	7132728		2013	23-Jul-13			orange-brown		wp 83, rusty fe carb, orange brown soil	0.04	1.58	3.2	0.1	5	200	1.35	0.03
ESA13-057	8	498911	7132729		2013	23-Jul-13					wp 84, below rusty zone	0.09	3.29	1	0.1	5	130	0.72	0.05
ESM13-001	8	497753	7133077		2013	22-Jul-13	20	c	brown	rocky		0.03	3.4	1.3	0.1	5	1150	1.23	0.03
ESM13-002	8	497770	7133028		2013	22-Jul-13	20	b-c	grey-brown	rocky	rusty rock	0.08	3.71	6.5	0.1	5	280	1.5	0.08
ESM13-003	8	497770	7132976		2013	22-Jul-13	20	b-c	brown	rocky	rusty rock	0.08	4.36	3.5	0.1	5	140	1.93	0.11
ESM13-004	8	497751	7132927		2013	22-Jul-13	20	b-c	brown	moss-scrree		0.15	2.91	120	0.1	5	340	1.79	0.09
ESM13-005	8	497736	7132874		2013	22-Jul-13	30	b	brown	rocky	rusty rocks	0.1	3.62	121.5	0.1	5	870	2.8	0.08
ESM13-006	8	497710	7132829		2013	22-Jul-13	40	c	brown	scree	shale, greenish phyllite	0.07	3.8	27	0.1	5	860	2.34	0.07
ESM13-007	8	497690	7132794		2013	22-Jul-13	30	c	grey-brown	scree	grey phyllite	0.14	7.21	39.8	0.1	5	530	3.08	0.39
ESM13-008	8	497598	7132710		2013	22-Jul-13	20	c	brown	scree		0.42	1.05	47.8	0.1	5	190	0.3	0.49
ESM13-009	8	497499	7132640		2013	22-Jul-13	20	c	brown	scree	dark grey phyllite scree	0.98	1.36	127	0.1	5	210	0.35	0.56
ESM13-010	8	497442	7132600		2013	22-Jul-13	10	TF	brown	scree	grey phyllite	0.52	1.17	66.2	0.1	5	210	0.31	0.44
ESM13-011	8	497308	7132681		2013	22-Jul-13	10	TF	brown	scree	grey phyllite outcrop	0.06	2.33	30.4	0.1	5	250	1.05	0.15
ESM13-012	8	497315	7132784		2013	22-Jul-13	15	b-c	brown	scree	grey phyllite	0.06	3.85	9.2	0.1	5	330	1.59	0.07
ESM13-013	8	497377	7132871		2013	22-Jul-13	15	TF	brown	scree	grey/brown siltstone	0.06	3.21	14.3	0.1	5	210	1.43	0.12
ESM13-014	8	497451	7132936		2013	22-Jul-13	20	b	brown	silt-sand	in wet gully	0.04	3.62	12.9	0.1	5	390	1.61	0.06
ESM13-015	8	497460	7132988		2013	22-Jul-13	30	b	brown	scree	buck brush	0.05	3.26	8.9	0.1	5	280	1.5	0.09
ESM13-016	8	497459	7133044		2013	22-Jul-13	30	b	brown	silt-sand		0.07	3.42	9.9	0.1	5	300	1.68	0.09
ESM13-017	8	497465	7133098		2013	22-Jul-13	30	b	orange-brown	silt-sand		0.07	2.92	14.2	0.1	5	280	1	0.14
ESM13-018	8	497456	7133159		2013	22-Jul-13	30	b	orange-brown	silt-sand		0.07	2.8	7.1	0.1	5	420	1.44	0.11
ESM13-019	8	497446	7133223		2013	22-Jul-13	30	b	brown	silt-sand		0.05	2.74	4.5	0.1	5	730	1.21	0.1
ESM13-020	8	495899	7134224		2013	22-Jul-13	20	c	dark brown		black shale	4.83	0.64	15.6	0.1	5	780	0.25	0.12
ESM13-021	8	495856	7134325		2013	22-Jul-13	15	a	dark brown	silt	black shale	1.99	0.21	3.2	0.1	5	140	0.12	0.04
ESM13-022	8	495803	7134398		2013	22-Jul-13	20	b	brown	silt-sand	subcrop grey-green limy siltstone	0.25	1.9	36.3	0.1	5	290	0.89	0.47
ESM13-023	8	495724	7134471		2013	22-Jul-13	15	b	brown	silt-sand	green-grey silty limestone	0.11	3.78	4.6	0.1	5	550	2.33	0.07
ESM13-024	8	495665	7134558		2013	22-Jul-13	10	b	brown	silt	pale green limy siltstone	0.04	3.64	11.5	0.1	5	220	2.34	0.12
ESM13-025	8	495598	7134628		2013	22-Jul-13	10	b	brown	silt		0.06	3.74	10.7	0.1	5	320	1.9	0.09
ESM13-026	8	495528	7134706		2013	22-Jul-13	10	b	brown	silt		0.22	2.2	13.9	0.1	5	250	0.83	0.21
ESM13-027	8	495436	7134754		2013	22-Jul-13	10	b	orange-brown	silt-sand	shaley fragments	0.07	1.97	5.4	0.1	5	200	0.61	1.31
ESM13-028	8	495322	7134787		2013	22-Jul-13	20	b	brown	silt-sand		0.14	1.78	4.5	0.1	5	210	0.49	0.25
ESM13-029	8	495214	7134810		2013	22-Jul-13	25	b	brown	silt-sand		0.14	1.97	9.6	0.1	5	320	0.44	0.21
ESM13-030	8	495119	7134849		2013	22-Jul-13	30	b	brown	silt	silt	0.05	3.38	10.9	0.1	5	220	1.29	0.15
ESM13-031	8	495032	7134904		2013	22-Jul-13	15	b	brown	silt		0.11	1.96	12.2	0.1	5	220	0.59	0.22
ESM13-032	8	494958	7134967		2013	22-Jul-13	10	b-c	brown		siltstone, rusty rock	0.11	2.63	4.8	0.1	5	540	1.31	0.12
ESM13-033	8	494882	7135032		2013	22-Jul-13	20	b	brown		limestone	0.2	1.84	30.2	0.1	5	220	0.78	0.27
ESM13-034	8	498180	7132152		2013	23-Jul-13	20	TF-b	brown		pale grey, phyllite	0.22	1.19	23.8	0.1	5	150	0.38	0.3
ESM13-035	8	498220	7132151		2013	23-Jul-13	20	TF-b	brown		pale grey, phyllite	0.11	0.96	9.3	0.1	5	130	0.25	0.3
ESM13-036	8	498276	7132145		2013	23-Jul-13	25	TF-b	brown		quartz, phyllite	0.06	0.96	7.6	0.1	5	90	0.19	0.23
ESM13-037	8	498327	7132134		2013	23-Jul-13	20	TF-b	brown		quartz, phyllite	0.05	1.45	5.8	0.1	5	60	0.25	0.29
ESM13-038	8	498370	7132152		2013	23-Jul-13	30	TF-b	brown		quartz, phyllite	0.11	1.24	19.6	0.1	5	80	0.4	0.38
ESM13-039	8	498402	7132204		2013	23-Jul-13	20	TF-b	brown		quartz, phyllite	0.17	1.23	13.6	0.1	5	60	0.16	0.32
ESM13-040	8	498416	7132253		2013	23-Jul-13	20	TF-b	brown		quartz, phyllite	0.1	2.06	45.1	0.1	5	60	0.72	0.51
ESM13-041	8	498462	7132288		2013	23-Jul-13	30	TF-b	brown		quartz, phyllite	0.09	1.28	127	0.1	5	250	0.44	0.14

Elko 2013 Soil Descriptions and Results

Sample #	NAD83Z	Easting	Northing	Alt_m	Yr	Date	Depth (cm)	Horizon	Colour	Texture	Description	Ag_ppm	Al_Perc	As_ppm	Au_ppm	B_ppm	Ba_ppm	Be_ppm	Bi_ppm
ESM13-042	8	498515	7132305		2013	23-Jul-13	20	TF-b	brown		quartz, phyllite	0.15	1.8	88.5	0.1	5	220	0.42	0.24
ESM13-043	8	498565	7132310		2013	23-Jul-13	20	TF-b	brown		mixed grey phyllite and brown limey siltstone	0.11	2.39	67.7	0.1	5	220	0.63	0.17
ESM13-044	8	498617	7132305		2013	23-Jul-13	20	TF-b	brown		grey phyllite	0.18	2.07	71	0.1	5	210	0.58	0.34
ESM13-045	8	498665	7132305		2013	23-Jul-13	20	TF-b	brown		black shale and grey phyllite, grey silty limestone	0.15	2.14	45.8	0.1	5	340	0.66	0.34
ESM13-046	8	498715	7132316		2013	23-Jul-13	20	TF-b	brown		black shale	0.09	2.03	17.5	0.1	5	300	0.6	0.34
ESM13-047	8	498759	7132362		2013	23-Jul-13	20	TF-b	brown		silty limestone on ridge	0.09	3.39	11.9	0.1	5	320	1.35	0.09
ESM13-048	8	498820	7132342		2013	23-Jul-13	20	TF-b	brown		silty limestone on ridge	0.19	3.15	6.1	0.1	5	300	1.14	0.11
ESM13-049	8	498867	7132336		2013	23-Jul-13	20	TF-b	brown		grey silty limestone	0.12	2.89	20.4	0.1	5	350	2.08	0.1
ESM13-050	8	498925	7132343		2013	23-Jul-13	20	b	orange-brown		gopher hole	0.09	3.61	13.1	0.1	5	320	1.67	0.09
ESM13-051	8	498968	7132318		2013	23-Jul-13	20	b	brown		ridge of silty limestone	0.05	2.67	5.4	0.1	5	550	1.17	0.1
ESM13-052	8	499020	7132307		2013	23-Jul-13	20	TF-b	brown		green shale	0.07	3.2	3.5	0.1	5	430	0.95	0.08
ESM13-053	8	499068	7132293		2013	23-Jul-13	20	TF-b	brown		ridge of green shale	0.06	3.29	2.5	0.1	5	450	1.52	0.06
ESM13-054	8	499113	7132274		2013	23-Jul-13	20	TF-b	brown		ridge of green shale	0.06	3.21	1.6	0.1	5	490	1.25	0.05

\*2013 samples; Au by ALS Minerals method AU-TL43; 25 g aqua regia digestion with ICP-MS finish

2013 samples; All other elements by ALS Minerals method ME-MS41 (ICP-MS or ICP-OES)

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Sample #	Ca_Perc	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_Perc	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K_Perc	La_ppm	Li_ppm	Mg_Perc	Mn_ppm	Mo_ppm	Na_Perc	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm
ESA13-001	3.37	0.19	17.25	10.2	43	0.41	22.2	2.01	3.13	0.06	0.04	0.06	0.02	0.04	9.5	7.5	0.77	582	0.38	0.01	1.09	30.7	1620	3.2	6
ESA13-002	2.26	0.14	68	55.1	300	10.8	75.8	8.45	16.6	0.26	0.15	0.04	0.066	0.86	35.8	59.8	4.5	1340	0.72	0.01	6.29	138.5	4050	7	69.3
ESA13-003	1.36	0.29	55.2	44.7	138	3.7	77	7.54	9.57	0.25	0.03	0.05	0.082	0.13	29.9	37.1	1.99	1400	1.42	0.01	1.36	102	2930	14.2	18.6
ESA13-004	1.61	0.31	62.8	54.2	81	2.64	126.5	8.24	6.82	0.21	0.05	0.06	0.078	0.07	33.3	20.5	1.29	1660	3.12	0.01	0.77	101.5	3660	21.6	8.2
ESA13-005	2.34	0.15	79.3	57	292	13.05	96.5	8.04	19	0.39	0.11	0.01	0.079	0.8	42	59.5	5.21	1140	0.74	0.01	1.62	154.5	4230	9.7	52.1
ESA13-006	2.9	0.19	78.8	59.2	251	9.98	93.1	8.1	13.6	0.32	0.08	0.02	0.073	0.4	40.2	40.4	3.06	1480	1.91	0.01	1.78	135.5	4540	17.1	37.6
ESA13-007	1.14	0.2	76.1	47.4	178	8.79	75	7.44	13.45	0.21	0.09	0.02	0.066	0.39	40.4	51.8	3.44	1360	0.8	0.01	2.33	92.3	3320	17.6	28.9
ESA13-008	0.1	0.14	23.6	26.9	32	0.89	56.7	4.97	6.4	0.05	0.05	0.03	0.018	0.04	11.3	62	0.78	1460	1.98	0.01	0.08	42.9	710	35.6	2.9
ESA13-009	0.19	0.44	34.2	25.9	21	1	129	3.74	3.53	0.06	0.03	0.09	0.023	0.11	17.9	18	0.44	3000	9.66	0.02	0.12	38.7	2150	37.1	7.7
ESA13-010	0.08	0.14	27.4	33.1	26	0.97	60	4.78	5.11	0.06	0.04	0.03	0.018	0.04	13.1	45.1	0.61	1560	1.82	0.01	0.07	43.3	690	43.5	3
ESA13-011	0.21	0.09	30.4	41.6	46	2.55	65	5.15	6.56	0.1	0.03	0.02	0.02	0.05	15.1	63.5	1.02	1620	1.55	0.005	0.36	48.8	730	54.4	3.7
ESA13-012	2.32	0.14	103	57.8	230	7.37	97.7	8.08	15.7	0.31	0.12	0.03	0.067	0.41	51.4	48.2	3.94	1400	0.73	0.01	1.96	113.5	4780	10.2	27.3
ESA13-013	1.73	0.16	81.8	53.8	235	10.4	92.8	9.05	19	0.32	0.06	0.03	0.089	0.65	44.4	56.4	4.93	1350	0.59	0.01	3.97	117.5	4680	8.9	60.1
ESA13-014	5.36	0.18	54.4	54.8	397	3.55	89.2	7.06	17.4	0.23	0.18	0.02	0.048	0.32	28.8	31.9	3.66	1140	0.72	0.01	4.95	156.5	3020	5	31.4
ESA13-015	2.95	0.26	83.6	60.2	258	2.65	131.5	8.02	16.8	0.2	0.1	0.03	0.061	0.25	46.6	31.2	3.63	1400	0.88	0.01	7.67	159.5	3810	12.7	30.3
ESA13-016	1.67	0.11	75.8	38.6	257	1.68	58.6	7.97	16.95	0.24	0.08	0.02	0.073	0.32	42.6	36.1	4.41	1020	0.57	0.01	7.44	101.5	4380	9.9	35.4
ESA13-017	1.76	0.1	67.9	45.4	286	2.35	62.7	7.99	17.25	0.23	0.08	0.02	0.061	0.58	37.4	45.6	4.93	1100	0.5	0.01	6.39	120.5	4720	5.5	44.6
ESA13-018	1.96	0.2	99.8	50.5	249	1.95	62.8	7.91	17.75	0.25	0.09	0.02	0.065	0.38	52.9	42.7	4.36	1280	0.82	0.01	3.99	124	5450	7.6	33
ESA13-019	2.22	0.07	44.1	54.7	303	3.47	95.5	6.89	14.7	0.18	0.19	0.04	0.034	0.46	24.5	49.2	4.74	1010	0.38	0.01	8.24	158	3110	3.3	36.8
ESA13-020	1.8	0.11	51.5	44.2	220	3.14	69.8	7.37	15.35	0.18	0.13	0.04	0.045	0.49	27	39.4	4.26	1140	0.59	0.01	8.43	90.6	3780	3.4	32.6
ESA13-021	1.85	0.08	38.6	39.9	284	3.8	76.3	6.29	14	0.16	0.16	0.03	0.022	0.41	21.5	36.7	3.69	926	0.41	0.01	14.2	118	2970	3	35.8
ESA13-022	0.95	0.22	124	24.9	100	2.22	32.4	5.36	10	0.15	0.06	0.05	0.057	0.05	66.1	21	1.62	1090	1.28	0.01	10.25	54.2	1600	12.9	6.6
ESA13-023	5.3	0.38	71.2	50	166	3.28	109.5	6.84	13.3	0.14	0.08	0.07	0.053	0.15	38.4	21	2.75	1500	1.17	0.01	9.78	111.5	3950	16.2	14.2
ESA13-024	1.95	0.79	58.4	40.8	297	1.25	51.6	5.92	10	0.15	0.12	0.05	0.062	0.06	32.7	23.7	2.55	1490	0.77	0.01	9.45	153	1860	27.7	7.8
ESA13-025	1.48	0.19	129	35	70	4.59	72.9	5.85	16.05	0.24	0.07	0.04	0.061	0.29	65.8	30.8	3.11	1480	0.62	0.01	14.15	63.1	3950	43.9	25.8
ESA13-026	1.19	0.34	52.4	44.8	30	0.59	54.1	9.37	4.5	0.16	0.06	0.07	0.099	0.05	25.8	13.2	0.54	2150	1.16	0.01	0.31	69	2430	12.5	4.3
ESA13-027	2.15	0.29	39.8	46.6	27	0.88	43.6	8.89	3.47	0.15	0.03	0.08	0.092	0.05	19.6	8.1	0.38	1980	1.31	0.01	0.28	63	2980	7.5	3.3
ESA13-028	1.3	0.12	55.7	38.2	107	15	39.8	8.5	16.9	0.24	0.05	0.04	0.08	0.39	29.6	55.1	4.52	1160	0.37	0.005	3.31	48.4	3500	6.6	25.9
ESA13-029	2.7	0.35	132.5	78.9	386	12.95	155.5	14.45	28.1	0.44	0.11	0.03	0.127	0.69	72.2	63.5	6.69	2260	1.47	0.01	6.45	180.5	5830	13.2	58
ESA13-030	1.27	0.23	56.7	39	135	1.1	81.5	7.02	13.05	0.28	0.04	0.02	0.072	0.22	29.5	31.9	3.08	1220	0.84	0.005	1.55	68.7	2280	7.6	22.8
ESA13-031	1.24	0.28	64.8	29.5	99	0.43	111	4.67	7.62	0.16	0.04	0.07	0.05	0.08	36.6	17.2	1.13	1660	1	0.005	0.59	46.8	1600	9	8
ESA13-032	4.08	0.58	26.3	19.3	96	0.47	86.7	3.59	3.89	0.08	0.04	0.07	0.022	0.13	13.8	13.4	0.7	565	0.57	0.005	2.38	85.9	2100	7.5	8.1
ESA13-033	4.35	0.46	49.2	37.4	100	0.6	96.6	5.17	6.74	0.11	0.03	0.07	0.041	0.1	25.4	17.6	1.38	1340	0.79	0.005	0.67	65.8	3390	8.3	7.1
ESA13-034	1.31	0.68	66.6	34.6	174	0.48	50.9	6.85	10.75	0.18	0.04	0.07	0.075	0.09	35.8	23.8	1.54	2050	0.92	0.005	0.41	102	1860	7.2	9.5
ESA13-035	1.99	0.85	68.9	46	102	0.65	67.6	5.54	5.87	0.16	0.06	0.1	0.049	0.11	39.5	17.2	0.9	2370	2.41	0.005	0.39	108.5	1890	7.5	9.1
ESA13-036	0.45	4.99	57.3	22.6	40	1.11	96.2	4.67	6.32	0.14	0.02	0.29	0.044	0.09	28.8	17.6	0.84	867	17.35	0.005	0.52	114	1420	10.3	10.4
ESA13-037	1.27	0.81	69.3	50.6	164	1.07	95.4	7.45	14	0.18	0.03	0.06	0.073	0.1	35.8	23.6	1.9	2020	2	0.005	0.71	81.3	2740	5.6	13.5
ESA13-038	0.07	0.26	28.3	6.5	38	2.58	61.1	3.15	5.14	0.12	0.03	0.93	0.042	0.16	16.5	15.6	0.84	264	36.6	0.005	1.17	58.9	760	10.7	18.4
ESA13-039	0.04	0.11	21.2	3.7	72	2.15	148	2.95	3.96	0.14	0.04	0.33	0.042	0.25	11.7	12.6	0.87	123	6.35	0.005	1.28	76.4	780	9	26.4
ESA13-040	0.05	0.19	29.7	8.9	25	0.93	38.5	3.21	5.52	0.09	<0.02	0.04	0.022	0.03	14.4	14.2	0.32	596	2.04	0.005	0.31	21.4	770	17.3	5.4
ESA13-041	0.07	0.12	17.05	22.5	29	2.34	35.8	3.92	5.8	0.1	0.02	0.03	0.023	0.04	8.5	30.8	0.48	1310	1.62	0.005	0.37	23.1	1040	75.1	6.5
ESA13-042	0.1	0.18	23.5	12.7	34	1.55	21.7	3.47	5.96	0.1	0.02	0.03	0.027	0.06	12	23.4	0.56	662	1.8	0.005	0.99	21.2	690	19.9	9.6
ESA13-043	0.05	0.19	16.65	14.8	25	2.4	13.1	3.4	4.27	0.09	0.02	0.05	0.016	0.04	8.2	29.2	0.43	1300	0.69	0.005	0.43	22.3	670	7.8	5.6
ESA13-044	7.3	0.18	44	178.5	130	0.33	192	5.31	3.97	0.13	0.1	0.05	0.035	0.04	22	24.1	0.78	1120	2.58	0.005	0.12	634	3410	8.6	2.6
ESA13-045	0.96	0.17	36	36.2	25	0.65	34.6	4.13	2.7	0.09	0.04	0.04	0.025	0.03	18.7	9.7	0.43	814	1.21	0.005	0.46	99.9	1230	10.6	3.3
ESA13-046	1.42	0.46	49.3	75.1	83	0.56	74.2	6.46	4.36	0.11	0.07	0.04	0.049	0.03	24.4	22.3	0.61	2420	1	0.005	0.28	138.5	1710	12.3	4.5
ESA13-047	0.61	0.25	58	22.2	56	1.26	28.3	3.7	6.92	0.1	0.04	0.03	0.038	0.04	23.4	16.5	0.78	950	1.48	0.005	1.1	44.1	1180	17.5	6.5
ESA13-048	1.01	0.17	66.2	32.2	264	2.32	42.1	6.09	12.65	0.18	0.03	0.02	0.055	0.08	29.7	39.7	3.26	1220	0.89	0.005	5.28	150.5	1970	10	18.8
ESA13-049	1.47	0.17	97.2	39.9	152	2.95	81.4	7.43	17.2	0.27	0.03	0.02	0.065	0.33	55.6	40	3.49	1280	1.35	0.005	4.54	97.8	3530	13.9	39.3

## Elko 2013 Soil Descriptions and Results

Sample #	Ca_Perc	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_Perc	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K_Perc	La_ppm	Li_ppm	Mg_Perc	Mn_ppm	Mo_ppm	Na_Perc	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm
ESA13-050	2.33	0.23	100.5	57.2	227	4.65	139.5	8.24	17.35	0.3	0.07	0.05	0.079	0.32	57	29.7	3.12	1560	1.25	0.005	10.1	163.5	3820	20.8	37.8
ESA13-051	1.4	0.22	78.3	54	213	2.02	81.5	8.13	17.25	0.27	0.08	0.05	0.057	0.43	43.6	37.3	3.62	1550	1.11	0.005	4.08	140	3710	13.6	36.3
ESA13-052	2.7	0.15	43.8	79	452	1.88	103	8.49	15.4	0.24	0.08	0.03	0.064	0.41	22.5	38.6	3.96	790	0.63	0.005	1.38	306	2640	4.9	37.1
ESA13-053	1.34	0.2	44.4	28.5	266	1.44	39.2	5.6	10.25	0.15	0.11	0.04	0.057	0.09	17.2	34	2.35	1000	0.8	0.005	12.9	90.1	1110	9.9	10.2
ESA13-054	1.72	0.13	46.9	32.4	188	1.62	44.2	6.24	11.9	0.28	0.09	0.05	0.058	0.37	23.9	28.6	3.04	1170	1.03	0.005	12.6	68.9	1690	5.1	28.6
ESA13-055	1.97	0.16	43	37.5	95	1.64	81.4	6.88	12.65	0.3	0.08	0.06	0.068	0.32	22.4	25.1	3.49	1180	0.59	0.005	7.84	52.1	2510	5.2	21.9
ESA13-056	9.98	5.55	64.6	37.9	138	7.29	42	5.94	5.93	0.15	0.09	0.09	0.062	0.19	31.7	11.9	1.3	1080	1.33	0.005	3.51	106.5	3960	77.1	12.7
ESA13-057	12.3	0.34	51.5	38.6	272	1.7	63.1	5.87	14.4	0.15	0.1	0.04	0.035	0.1	26.1	25.3	3.14	1420	0.77	0.005	6.95	136.5	3040	6.3	11.6
ESM13-001	1.42	0.08	56.6	48.4	317	1.16	29.4	6.52	13.45	0.2	0.06	0.03	0.066	0.39	28.7	44.1	4.53	1200	0.17	0.005	4.33	130	3370	3.8	33.9
ESM13-002	1.44	0.11	53.4	30.6	149	0.89	53	6.89	14.95	0.2	0.04	0.03	0.069	0.21	28.1	31.1	3.88	1140	0.9	0.005	8.57	65.2	3240	8.8	18.6
ESM13-003	1.81	0.13	87.9	44.5	243	1.8	83.8	8.35	20	0.33	0.14	0.02	0.078	0.38	47.6	38.3	4.86	1180	1.4	0.005	2.29	118.5	4390	10.8	43.1
ESM13-004	2.9	0.2	87	59	284	4.02	105	8.47	14.55	0.27	0.07	0.04	0.078	0.33	46.3	33.5	2.75	1260	1.57	0.005	1.35	164	3890	12	32.2
ESM13-005	1.41	0.14	74.6	52.7	253	12.05	81.7	8.67	15.45	0.26	0.05	0.04	0.083	0.48	41.1	41.7	4.66	1340	0.64	0.005	3.3	142.5	3160	14.2	30.3
ESM13-006	1.7	0.14	70	45.8	243	10.75	114.5	8.78	16.6	0.3	0.07	0.03	0.086	0.63	39	41.8	4.35	1210	0.72	0.005	5.17	115.5	3480	8.6	53.4
ESM13-007	2.87	0.36	168	96.6	481	11.55	185.5	16.8	32.6	0.27	0.07	0.115	0.76	97.6	111.5	6.08	2540	3.7	0.02	6.72	256	7320	38	73.1	
ESM13-008	0.25	0.49	31	24.3	22	1.27	143.5	3.97	3.13	0.06	0.03	0.09	0.026	0.13	16.5	12.6	0.44	2240	7.53	0.03	0.09	46.2	2370	35.1	10
ESM13-009	0.25	0.71	50.5	43.5	27	1.35	220	4.83	4.36	0.07	0.02	0.11	0.035	0.11	24.5	18	0.58	5260	8.11	0.02	0.24	84.4	2220	63.4	9.2
ESM13-010	0.11	0.43	29.1	30.4	23	1.65	146	3.7	3.73	0.05	0.04	0.1	0.03	0.13	14	9.3	0.36	4510	7.43	0.02	0.09	41.6	2480	44.8	12.8
ESM13-011	1	0.23	109	25.1	58	2.09	56.3	5.18	7.98	0.11	0.02	0.06	0.057	0.05	51	19.9	1.01	958	1.6	0.01	2.23	54.9	2820	11.9	9
ESM13-012	1.84	0.14	87.3	41.4	234	7.58	74.4	7.87	18.5	0.19	0.11	0.05	0.058	0.26	49.9	35.7	3.66	1440	0.51	0.01	7.66	113	4060	8.2	29.1
ESM13-013	1.42	0.13	79.5	35.3	220	6.56	46	6.63	15	0.18	0.08	0.03	0.042	0.21	43.8	42.7	3.07	1080	0.73	0.01	8	102.5	3840	13.1	29.1
ESM13-014	1.46	0.08	77.7	37.3	220	4.08	46.1	7.33	15.65	0.17	0.08	0.02	0.06	0.26	41.6	39.5	3.5	1130	0.49	0.01	6.51	94.4	3730	7	35.9
ESM13-015	0.79	0.15	73.5	31.9	217	1.82	28.8	6.63	13.85	0.1	0.02	0.02	0.064	0.1	37	26.1	2.71	1320	0.66	0.01	5.47	85.2	2560	8.6	16.3
ESM13-016	0.86	0.17	81.6	34.3	231	1.98	31.1	6.98	15.25	0.11	0.03	0.03	0.066	0.11	40.4	28.6	2.88	1380	0.74	0.01	6.09	92	2720	9.3	18
ESM13-017	0.58	0.13	59.4	22.7	160	1.3	23	5.9	13.05	0.07	0.04	0.02	0.069	0.07	26.7	24.5	2.1	1060	0.84	0.01	7.31	61.7	1320	11.6	13.7
ESM13-018	0.88	0.23	72.9	28.1	137	1.33	35.4	5.64	10.75	0.12	0.05	0.04	0.059	0.12	30.3	27.1	2.22	1090	0.77	0.01	7.03	64.3	2320	9.1	13.5
ESM13-019	1.19	0.11	49.9	28.3	158	1.26	29.7	5.33	10.45	0.08	0.05	0.02	0.054	0.12	24.8	28.6	2.28	1060	0.77	0.01	8.31	72.9	1960	8.2	17.9
ESM13-020	0.12	0.33	10.35	1.1	51	0.77	59.8	1.56	1.97	0.07	<0.02	0.83	0.037	0.13	5.4	3	0.25	44	8.18	0.01	0.2	32.9	2240	7	8.5
ESM13-021	1.32	0.22	4.26	0.5	9	0.2	22.1	0.37	0.58	0.025	<0.02	0.68	0.012	0.05	3	0.5	0.03	12	5.81	0.01	0.16	4	2150	3.9	2.6
ESM13-022	1.8	0.67	44.8	47.8	91	0.88	125	4.47	6.44	0.05	0.02	0.11	0.071	0.03	24.7	12.2	0.8	2880	2.72	0.01	2.6	99.3	1820	12.7	5.6
ESM13-023	1.49	0.14	57	44	162	3.86	53	7.49	16.85	0.14	0.05	0.03	0.085	0.35	30	34.4	3.46	1240	0.45	0.01	4.28	85.6	3500	4.6	30.8
ESM13-024	8.93	0.08	95.2	51.7	399	6.11	47	7.81	18.85	0.24	0.2	0.01	0.079	0.64	50.8	27.8	3.41	1500	0.92	0.01	1.46	200	3210	3	54.4
ESM13-025	1.35	0.14	72.6	34.6	283	3.65	39.2	7.42	15.9	0.12	0.1	0.02	0.073	0.2	40.4	29.9	2.99	973	0.52	0.01	5.11	107.5	2210	8.6	21.8
ESM13-026	1.06	0.37	45.4	24.4	156	3.65	39.9	4.95	8.01	0.07	0.07	0.07	0.046	0.25	23.6	21.3	1.36	866	1.25	0.01	1.79	78.4	1600	18.4	32.3
ESM13-027	0.09	0.2	122.5	23.4	75	1.05	111	6.48	10.25	0.07	0.04	0.04	0.046	0.07	79	12.7	0.48	754	16.5	0.03	0.83	60.4	1800	23.1	11
ESM13-028	0.14	0.34	21.9	6.1	35	2.13	48.7	2.81	6.09	0.025	<0.02	0.05	0.023	0.19	12.1	14.2	0.81	255	6.75	0.01	0.47	25.2	860	27.2	20
ESM13-029	0.6	0.06	29.2	11.3	107	1.32	26.4	3.48	8.31	0.05	0.03	0.08	0.033	0.04	16.1	12.8	0.89	289	1.43	0.01	4.95	46.2	1130	12.8	7.6
ESM13-030	0.93	0.13	48.4	38.1	293	2.3	37.9	5.96	11.6	0.09	0.09	0.05	0.057	0.06	24.1	26.7	2.79	1320	1.12	0.01	8.03	144	1460	18.1	9.4
ESM13-031	0.37	0.17	34.2	12.6	72	1.31	23.7	3.56	6.8	0.025	<0.02	0.06	0.038	0.05	17.5	16.4	0.75	427	1.09	0.01	2	41.9	870	14.7	8.7
ESM13-032	1.25	0.25	51.6	37	431	6.91	31.1	7.26	13.1	0.13	0.04	0.04	0.075	0.88	24.6	33.5	1.69	519	0.4	0.02	6.81	168.5	2720	13.8	88.9
ESM13-033	0.61	0.61	51.9	21.5	60	0.88	39.8	4.22	5.55	0.07	0.03	0.07	0.047	0.06	26.1	17.1	1.09	1140	1.83	0.01	1.45	56.4	1180	23.7	8.4
ESM13-034	0.07	0.27	27.1	8.9	18	0.84	37.3	3.29	3.83	0.025	0.03	0.06	0.02	0.07	13.6	9.7	0.22	1240	2.36	0.01	0.17	17.6	1900	17.4	9.3
ESM13-035	0.03	0.23	32.3	13.7	13	0.88	31.7	2.81	4.18	0.025	<0.02	0.04	0.016	0.06	15.6	5.8	0.13	3020	2.93	0.01	0.13	14.6	1340	19.6	11.5
ESM13-036	0.04	0.14	33	7.7	14	0.65	37.6	2.85	3.68	0.025	<0.02	0.03	0.013	0.07	16.7	11	0.25	889	1.19	0.01	0.18	17.5	1060	12.7	7.7
ESM13-037	0.02	0.11	44.7	6.6	18	1.13	27.8	3.34	5.32	0.025	0.02	0.04	0.015	0.05	21.5	16.4	0.28	521	1.1	0.01	0.25	15.6	1110	11.3	11
ESM13-038	0.13	0.16	29.3	10.4	23	1.25	112.5	3.16	4.71	0.025	0.02	0.05	0.03	0.05	17.3	10.1	0.23	739	2.98	0.01	0.08	28.8	2390	20.8	9.8
ESM13-039	0.04	0.18	19.9	5.3	28	1.02	95.1	3.12	5.8	0.025	<0.02	0.05	0.019	0.04	12	13.1	0.29	476	2.26	0.01	0.16	18.4	1350	20.7	7.2
ESM13-040	0.05	0.1	15.3	26.2	29	2.6	41.1	4.3	6.39	0.025	0.03	0.04	0.025	0.04	6.8	44.6	0.55	1370	1.44	0.01	0.33	31.6	1100	48.6	5.4
ESM13-041	2.55	0.29	55.6	47.8	59	0.41	75.2	7.28	4.18	0.09	0.04	0.07	0.062	0.03	33	25.8	0.5	1900	1.38	0.01	0.15	133	3140	17.7	2.3

Elko 2013 Soil Descriptions and Results

Sample #	Ca_Perc	Cd_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Cu_ppm	Fe_Perc	Ga_ppm	Ge_ppm	Hf_ppm	Hg_ppm	In_ppm	K_Perc	La_ppm	Li_ppm	Mg_Perc	Mn_ppm	Mo_ppm	Na_Perc	Nb_ppm	Ni_ppm	P_ppm	Pb_ppm	Rb_ppm
ESM13-042	0.98	0.27	64.7	53	95	1.36	88.5	6.9	6.44	0.1	0.08	0.06	0.058	0.04	34.5	25	1.27	1900	2.44	0.01	0.84	139	2820	26.3	3.4
ESM13-043	1.33	0.31	64.2	46	128	0.9	77.1	6.23	8.77	0.11	0.07	0.05	0.059	0.05	36.4	38.3	1.68	1860	1.42	0.005	1.09	111.5	2470	18.5	3.9
ESM13-044	0.68	0.23	49	35.9	85	1.1	69.3	5.08	6.59	0.08	0.07	0.05	0.042	0.06	30.8	32.5	1.13	1280	1.28	0.005	0.42	76.7	1410	39.3	5.1
ESM13-045	0.78	0.27	53.1	44.8	71	1.05	65.9	4.84	6.27	0.06	0.08	0.07	0.04	0.07	29.5	27.6	0.93	1440	1.28	0.005	0.51	72.4	1470	65.6	7.8
ESM13-046	0.35	0.24	66.4	33.2	82	0.95	45.6	4.64	6.62	0.07	0.04	0.04	0.034	0.07	32	21.3	0.85	925	1.88	0.005	0.91	85.2	1860	26.8	8.8
ESM13-047	1.84	0.34	109	44	143	2.75	63.6	6.98	14.15	0.21	0.09	0.05	0.058	0.34	60.7	36.5	2.83	1340	1.97	0.005	2.92	89.2	3660	11.8	33
ESM13-048	1.26	0.39	98	32.6	167	1.85	44	6.6	14.85	0.2	0.1	0.06	0.069	0.26	62.8	31.5	2.52	2440	1.56	0.005	2.11	82.2	3900	13.7	24.3
ESM13-049	1.78	0.51	144.5	55.8	128	1.38	70.5	5.72	13.8	0.21	0.05	0.09	0.098	0.2	90.3	29.2	2.11	2770	0.89	0.005	4.26	107.5	2650	17.7	14.6
ESM13-050	1.49	1.22	62.8	40.8	291	3.76	53.1	6.67	12.15	0.15	0.07	0.03	0.07	0.26	31.7	35.6	3.27	1140	0.71	0.005	4.23	139	2730	88.1	23.7
ESM13-051	1.64	0.32	92.1	37.8	95	0.66	36.3	5.03	9.2	0.08	0.04	0.03	0.058	0.13	44.1	22.5	1.58	1300	0.64	0.005	0.72	81	3580	10.3	10.6
ESM13-052	0.87	0.12	52.8	31.1	153	1.35	47.5	6.46	12.7	0.1	0.06	0.06	0.062	0.17	22.3	31.7	2.57	734	0.99	0.005	10.25	64.3	1860	7	18.3
ESM13-053	1.55	0.21	52.9	29.1	153	1.69	48	5.55	11.7	0.18	0.13	0.09	0.065	0.28	28.8	29.6	3.15	1110	0.63	0.005	9	70.8	2900	10.9	22.4
ESM13-054	1.7	0.13	70.9	34.1	131	1.28	52.4	5.92	12.5	0.19	0.04	0.06	0.08	0.36	39	31.6	2.73	1320	0.6	0.005	7.4	61.4	2950	5.2	25.3

\*2013 sample

2013 samples



## Elko 2013 Soil Descriptions and Results

Sample #	Re_ppm	S_Perc	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_Perc	Ti_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Au_ppm*	Certificate
ESA13-001	0.0005	0.23	0.42	2.5	0.5	0.1	182.5	0.01	0.02	0.3	0.039	0.04	0.21	43	0.025	4.02	28	1.6	0.002	WH13135203
ESA13-002	0.0005	0.03	4.54	16.9	0.7	0.4	266	0.01	0.01	3.6	0.401	0.19	0.31	196	0.24	11.4	110	5.5	0.003	WH13135203
ESA13-003	0.0005	0.07	23	14.9	1.4	0.3	183	0.005	0.03	1.9	0.093	0.08	0.43	113	0.32	15	122	1.1	0.02	WH13135203
ESA13-004	0.0005	0.1	52.2	13.8	1.9	0.2	237	0.005	0.05	2.1	0.041	0.06	0.57	75	0.16	16.75	130	1.9	0.038	WH13135203
ESA13-005	0.0005	0.03	13.3	15.3	0.8	0.5	298	0.005	0.02	3.9	0.294	0.14	0.26	211	0.13	13	117	4	0.005	WH13135203
ESA13-006	0.001	0.02	20.4	16.7	1.1	0.4	290	0.005	0.04	3.6	0.189	0.13	0.36	161	0.16	14.5	114	3.2	0.038	WH13135203
ESA13-007	0.0005	0.01	1.09	13.4	0.8	0.5	133.5	0.005	0.03	4.7	0.277	0.11	0.44	166	0.13	12.65	107	3.6	0.002	WH13135203
ESA13-008	0.0005	0.03	0.93	2.2	0.6	0.1	17.9	0.005	0.07	5.3	0.0025	0.03	1.26	22	0.025	3.43	102	1.5	0.004	WH13135203
ESA13-009	0.0005	0.27	3.82	1.1	2.6	0.1	110.5	0.005	0.25	1.5	0.009	0.13	3.77	28	0.07	9.21	102	0.9	0.01	WH13135203
ESA13-010	0.0005	0.02	1.21	2.2	0.5	0.1	16.8	0.005	0.1	5.9	0.0025	0.03	1.57	19	0.025	4.44	106	1	0.009	WH13135203
ESA13-011	0.0005	0.01	1.5	3.2	0.5	0.1	21.4	0.005	0.06	9	0.018	0.03	1.42	29	0.025	6.44	104	1.2	0.073	WH13135203
ESA13-012	0.0005	0.02	1.51	14.7	0.9	0.4	251	0.005	0.02	5	0.246	0.1	0.4	211	0.08	16.2	113	4.5	0.002	WH13135203
ESA13-013	0.0005	0.03	1.12	16.5	0.9	0.4	210	0.01	0.02	3.8	0.311	0.16	0.24	258	0.09	14	124	2.1	0.002	WH13135203
ESA13-014	0.0005	0.02	1.36	12.3	0.6	0.5	280	0.01	0.005	3	0.432	0.14	0.55	190	0.43	7.75	94	5.4	0.001	WH13135203
ESA13-015	0.0005	0.04	0.54	8.3	0.7	0.4	218	0.01	0.01	4.1	0.329	0.11	0.68	185	0.28	11.7	121	3.6	0.001	WH13135203
ESA13-016	0.0005	0.03	0.22	10.7	0.7	0.4	183	0.01	0.01	3.3	0.307	0.1	0.32	216	0.18	10.6	115	2.5	0.001	WH13135203
ESA13-017	0.0005	0.04	0.19	10.6	0.5	0.5	209	0.01	0.01	3.2	0.376	0.09	0.4	189	0.3	10.8	108	3	0.001	WH13135203
ESA13-018	0.0005	0.02	0.52	11.7	0.6	0.4	218	0.01	0.01	4.2	0.288	0.1	0.49	196	0.15	14.35	121	4	0.001	WH13135203
ESA13-019	0.001	0.03	0.2	6.3	0.3	0.4	145	0.01	0.01	2	0.413	0.09	0.7	175	0.23	8.8	92	7.2	0.002	WH13135203
ESA13-020	0.0005	0.04	0.26	8.4	0.7	0.4	136	0.01	0.005	2.5	0.399	0.08	0.3	173	0.22	9.15	94	3.7	0.001	WH13135203
ESA13-021	0.0005	0.04	0.17	3.5	1	0.4	114	0.02	0.01	1.7	0.404	0.11	0.36	146	0.27	7.96	84	4.4	0.001	WH13135203
ESA13-022	0.0005	0.05	1.15	6.3	1	0.6	70.8	0.01	0.01	2.5	0.285	0.09	0.73	128	0.29	20	85	2.3	0.001	WH13135203
ESA13-023	0.0005	0.13	0.63	5.1	1	0.4	319	0.03	0.03	2.9	0.247	0.09	0.5	139	0.42	11.6	101	2.5	0.003	WH13135203
ESA13-024	0.0005	0.04	0.79	11	0.8	0.5	85.6	0.01	0.02	3.1	0.336	0.09	0.45	151	0.31	14.75	134	3.5	0.002	WH13135203
ESA13-025	0.001	0.03	0.7	6.3	1	0.5	118.5	0.01	0.01	6.4	0.393	0.23	0.62	200	0.16	13.35	118	3.9	0.001	WH13135203
ESA13-026	0.0005	0.09	3.5	16.6	1.9	0.2	80.3	0.01	0.05	1.3	0.016	0.06	0.4	53	0.13	22	100	1.3	0.003	WH13135203
ESA13-027	0.0005	0.12	5.63	20	1.9	0.2	139.5	0.01	0.02	0.6	0.013	0.05	0.26	61	0.07	17.65	97	0.7	0.004	WH13135203
ESA13-028	0.0005	0.01	0.92	13.5	0.8	0.4	146.5	0.01	0.02	1.9	0.293	0.09	0.26	241	0.08	12.15	108	1.5	0.001	WH13135203
ESA13-029	0.0005	0.04	1.78	28.3	1.6	0.7	281	0.02	0.03	6.8	0.383	0.18	0.66	386	0.24	26.5	204	4	0.002	WH13135203
ESA13-030	0.0005	0.03	0.56	17.2	0.9	0.4	93.2	0.005	0.03	2.8	0.133	0.07	0.39	199	0.09	17.15	98	1.3	0.002	WH13135203
ESA13-031	0.0005	0.06	0.56	9.4	1.5	0.3	120	0.01	0.03	1	0.026	0.06	0.45	100	0.1	27.3	87	0.7	0.002	WH13135203
ESA13-032	0.0005	0.1	0.67	3.3	1	0.1	79.6	0.01	0.02	0.9	0.017	0.05	0.52	27	0.12	16.35	79	1	0.002	WH13135203
ESA13-033	0.001	0.11	0.97	6.7	1.2	0.2	180.5	0.01	0.03	0.6	0.037	0.06	0.43	89	0.08	19.2	86	0.8	0.002	WH13135203
ESA13-034	0.001	0.07	0.76	18.7	1.5	0.3	55.1	0.01	0.03	1.5	0.03	0.09	0.8	146	0.07	28.3	178	1	0.001	WH13135203
ESA13-035	0.0005	0.1	2.99	9.6	2.1	0.2	76.3	0.005	0.03	1.2	0.032	0.13	1.09	75	0.1	28.9	127	2.1	0.003	WH13135203
ESA13-036	0.001	0.04	6	6.7	2.9	0.4	38	0.005	0.05	1.3	0.034	0.29	4.54	165	0.14	23.7	592	<0.5	0.006	WH13135203
ESA13-037	0.0005	0.06	0.83	16.5	1.8	0.3	112.5	0.005	0.02	1.9	0.057	0.14	0.8	228	0.06	20	175	0.9	0.001	WH13135203
ESA13-038	0.001	0.15	16.8	2.7	6.6	0.5	23.9	0.005	0.11	2.5	0.049	0.84	5.86	448	0.5	7.95	162	1.6	0.002	WH13135203
ESA13-039	0.0005	0.4	4.37	2.2	10	1.1	62.3	0.005	0.07	1.5	0.032	0.56	5.24	72	0.31	9.69	223	3.7	0.001	WH13135203
ESA13-040	0.0005	0.05	1.63	0.6	0.8	0.4	9.5	0.005	0.08	0.2	0.017	0.12	0.71	49	0.14	2.56	66	<0.5	0.003	WH13135203
ESA13-041	0.0005	0.03	1.23	1.3	0.6	0.3	6.7	0.005	0.07	1.1	0.018	0.08	0.77	36	0.13	3.26	68	0.5	0.002	WH13135203
ESA13-042	0.0005	0.03	1.01	2.1	0.6	0.6	9.8	0.005	0.04	1.1	0.039	0.13	0.84	58	0.31	3.41	79	0.6	0.002	WH13135203
ESA13-043	0.0005	0.03	0.99	1.3	0.2	0.2	5.8	0.005	0.05	1.6	0.02	0.05	0.76	29	0.11	2.44	71	<0.5	0.011	WH13135203
ESA13-044	0.001	0.29	2.86	5.1	1.4	0.1	266	0.005	0.04	1.3	0.005	<0.02	0.56	37	0.025	16.8	63	4	0.007	WH13135203
ESA13-045	0.0005	0.03	11.2	4.5	0.8	0.2	47	0.005	0.02	1.9	0.023	0.05	0.55	35	0.19	13.25	86	1.3	0.002	WH13135203
ESA13-046	0.0005	0.08	2.45	5.4	1.3	0.2	64.8	0.01	0.03	0.6	0.013	0.05	0.95	47	0.14	17.65	91	2.1	0.003	WH13135203
ESA13-047	0.0005	0.04	1.93	3.4	0.6	0.4	43.2	0.005	0.03	1.4	0.033	0.09	0.74	81	0.15	8.09	87	1.6	0.006	WH13135203
ESA13-048	0.0005	0.03	0.93	10.1	0.8	0.8	145	0.01	0.02	2	0.261	0.13	0.42	168	0.16	10.15	78	1.4	0.002	WH13135203
ESA13-049	0.0005	0.03	0.87	9.6	1	0.5	167	0.01	0.02	4	0.301	0.15	0.46	214	0.1	12.1	122	1.8	0.002	WH13135203

## Elko 2013 Soil Descriptions and Results

Sample #	Re_ppm	S_Perc	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_Perc	Ti_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Au_ppm*	Certificate
ESA13-050	0.0005	0.13	1.88	10.3	1.1	0.4	241	0.02	0.03	3.5	0.269	0.13	0.64	206	0.21	12.7	143	2.9	0.005	WH13135203
ESA13-051	0.0005	0.02	1.14	10.5	0.8	0.4	121	0.005	0.03	3.9	0.267	0.14	0.73	170	0.08	15.1	150	4.4	0.002	WH13135203
ESA13-052	0.0005	0.02	0.48	16.8	0.9	0.5	113.5	0.005	0.01	1.9	0.196	0.12	0.39	222	0.15	10.9	131	3.2	0.001	WH13135203
ESA13-053	0.0005	0.06	0.61	10.9	0.6	0.7	98.3	0.01	0.03	1.6	0.464	0.06	0.46	162	0.25	8.3	76	3.3	0.001	WH13135203
ESA13-054	0.0005	0.08	0.4	11.2	0.8	0.5	91.9	0.02	0.01	1.3	0.414	0.07	0.31	175	0.14	10.45	79	2.5	0.002	WH13135203
ESA13-055	0.0005	0.09	0.47	10.9	0.7	0.4	140.5	0.01	0.02	1.3	0.303	0.07	0.37	192	0.15	10.8	87	2.5	0.002	WH13135203
ESA13-056	0.0005	0.005	1.07	10.7	1.2	0.4	145	0.01	0.01	3.4	0.149	0.05	0.47	105	0.18	17.05	511	3.9	0.001	WH13135203
ESA13-057	0.0005	0.03	0.47	5	0.5	0.4	364	0.01	0.02	2.6	0.294	0.08	0.4	147	0.47	9.01	90	3.1	0.001	WH13135203
ESM13-001	0.0005	0.02	0.28	14.4	0.7	0.5	116	0.01	0.03	2.7	0.419	0.05	0.37	161	0.26	11.4	97	1.9	0.001	WH13135203
ESM13-002	0.0005	0.06	0.42	8.8	0.7	0.5	140	0.01	0.01	1.7	0.308	0.07	0.32	206	0.14	9.69	95	1.8	0.001	WH13135203
ESM13-003	0.0005	0.01	0.9	12.1	1	0.4	175	0.005	0.04	6.5	0.294	0.17	0.7	259	0.14	11.55	132	8.1	0.001	WH13135203
ESM13-004	0.0005	0.03	5.47	20.2	1.3	0.4	219	0.005	0.03	4	0.143	0.12	0.46	203	0.12	15	125	2.7	0.005	WH13135203
ESM13-005	0.0005	0.03	5.61	15.9	1.1	0.4	208	0.005	0.02	3.4	0.226	0.1	0.3	204	0.07	14.4	121	1.9	0.005	WH13135203
ESM13-006	0.0005	0.04	1.96	16.5	0.9	0.4	193.5	0.01	0.01	3.2	0.309	0.12	0.27	231	0.13	11.2	120	2.5	0.002	WH13135203
ESM13-007	0.0005	0.07	2.87	21.4	1.8	0.6	298	0.03	0.04	11.6	0.281	0.25	1.25	310	0.46	34.6	229	6.9	0.003	WH13135203
ESM13-008	0.001	0.26	4.56	0.7	2.6	0.1	116	0.005	0.27	0.5	0.011	0.14	2.71	31	0.05	7.9	127	0.7	0.003	WH13135203
ESM13-009	0.0005	0.16	31.9	2.4	3.9	0.2	105.5	0.005	0.28	2.4	0.018	0.16	3.29	38	0.11	12.25	170	0.8	0.017	WH13135203
ESM13-010	0.0005	0.23	12.55	0.5	2.5	0.2	84.7	0.005	0.27	0.3	0.008	0.14	3.29	36	0.09	7.57	95	1	0.019	WH13135203
ESM13-011	0.0005	0.07	2.04	5.4	1.2	0.4	110	0.01	0.02	1.4	0.056	0.08	0.73	98	0.15	17.95	85	0.6	0.014	WH13135203
ESM13-012	0.0005	0.05	1.01	8.6	0.6	0.4	253	0.02	0.01	3.7	0.277	0.12	0.48	202	0.32	13.7	114	3.7	0.004	WH13135203
ESM13-013	0.0005	0.03	0.93	6.6	0.7	0.4	148	0.02	0.01	4.4	0.255	0.11	0.59	148	0.33	12.7	107	3	0.002	WH13135203
ESM13-014	0.0005	0.03	0.83	9.6	1	0.5	169	0.01	0.01	3.1	0.317	0.1	0.47	185	0.21	13.15	103	2.4	0.002	WH13135203
ESM13-015	0.0005	0.06	0.71	6.5	0.4	0.5	77.6	0.005	0.02	0.7	0.223	0.08	0.65	178	0.16	11.3	94	0.9	0.001	WH13135203
ESM13-016	0.0005	0.06	0.77	7.1	0.9	0.6	86.6	0.005	0.02	0.8	0.244	0.09	0.7	189	0.21	12.3	101	1	0.001	WH13135203
ESM13-017	0.0005	0.06	0.64	5.6	0.7	0.8	42.3	0.01	0.03	0.6	0.258	0.08	0.71	167	0.15	8.38	88	1.5	0.001	WH13135203
ESM13-018	0.0005	0.02	0.41	9.1	0.8	0.7	72.3	0.01	0.01	2.4	0.386	0.07	0.64	149	0.25	12.55	87	1.7	0.001	WH13135203
ESM13-019	0.0005	0.06	0.3	8.2	0.5	0.6	74.6	0.01	0.02	1.3	0.308	0.06	0.55	140	0.26	10.45	81	1.5	0.001	WH13135203
ESM13-020	0.0003	0.4	2.45	0.1	18.2	0.6	41.8	0.005	0.07	0.1	0.0025	0.27	10.55	49	0.29	7.59	104	<0.5	0.001	WH13135203
ESM13-021	0.0003	0.25	4.43	0.1	9.7	0.1	74.8	0.005	0.03	0.1	0.0025	0.11	6.86	34	0.15	5.59	19	<0.5	0.002	WH13135203
ESM13-022	0.0005	0.15	0.71	4.6	1.1	0.3	75.9	0.02	0.05	0.4	0.065	0.07	0.86	88	0.18	13.1	76	0.7	0.002	WH13135203
ESM13-023	0.0005	0.02	0.46	16.2	0.8	0.6	142	0.01	0.01	2.6	0.382	0.18	0.33	247	0.15	13.55	114	2	0.001	WH13135203
ESM13-024	0.0005	0.005	0.6	14	0.5	0.4	484	0.005	0.01	8.5	0.376	0.37	0.45	228	0.25	11.45	182	7.5	0.001	WH13135203
ESM13-025	0.0005	0.02	0.59	14.8	0.8	0.7	91.8	0.01	0.01	4.4	0.467	0.2	0.54	203	0.3	12.85	123	4.1	0.001	WH13135203
ESM13-026	0.0005	0.02	0.98	11.1	0.7	0.3	39.2	0.005	0.03	3.7	0.161	0.24	1.07	122	0.18	13.25	103	3	0.002	WH13135203
ESM13-027	0.0005	0.15	2.42	3.9	0.8	0.4	293	0.005	0.13	3.8	0.023	0.12	0.98	88	0.12	7.33	83	1.7	0.003	WH13135203
ESM13-028	0.0005	0.1	1.06	1.3	1.3	0.4	35.4	0.005	0.05	0.2	0.036	0.22	1.8	81	0.11	6.68	100	<0.5	0.001	WH13135203
ESM13-029	0.0005	0.07	0.72	2.1	0.9	0.7	41.5	0.01	0.03	0.2	0.189	0.19	0.84	97	0.21	5.65	48	1.2	0.002	WH13135203
ESM13-030	0.0005	0.07	0.76	10.8	0.9	0.7	41.6	0.01	0.01	1.7	0.441	0.24	0.65	157	0.21	11.7	111	2.9	0.002	WH13135203
ESM13-031	0.0005	0.03	0.65	4	0.6	0.5	21.4	0.005	0.04	1	0.09	0.14	0.73	76	0.21	7.67	63	<0.5	0.001	WH13135203
ESM13-032	0.0005	0.02	0.41	27.2	0.9	1.2	78.7	0.01	0.02	3.6	0.368	0.28	0.48	173	0.12	14.1	94	1.7	0.001	WH13135203
ESM13-033	0.0005	0.04	1.45	6.1	1.2	0.3	24.6	0.005	0.04	2.5	0.057	0.12	0.91	62	0.15	15.7	99	0.8	0.002	WH13135203
ESM13-034	0.0005	0.11	1.33	0.3	0.7	0.2	21.5	0.005	0.08	0.3	0.007	0.08	1.53	27	0.09	3.24	56	0.5	0.003	WH13135203
ESM13-035	0.0005	0.08	0.8	0.3	0.7	0.2	7.5	0.005	0.12	0.3	0.008	0.12	0.9	24	0.08	1.9	55	<0.5	0.001	WH13135203
ESM13-036	0.0005	0.06	0.65	0.3	0.4	0.1	9.9	0.005	0.14	0.5	0.01	0.05	0.73	19	0.05	1.63	55	<0.5	0.001	WH13135203
ESM13-037	0.0005	0.05	0.47	0.5	0.6	0.2	6	0.005	0.1	0.9	0.009	0.09	0.73	24	0.06	1.86	46	0.5	0.001	WH13135203
ESM13-038	0.0005	0.06	1.33	0.3	1.7	0.4	27.5	0.005	0.27	0.2	0.008	0.11	2.86	45	0.11	7.29	96	0.5	0.009	WH13135203
ESM13-039	0.0005	0.07	1.1	0.3	1.6	0.4	15.9	0.005	0.11	0.1	0.012	0.11	1.24	58	0.12	3.23	61	<0.5	0.002	WH13135203
ESM13-040	0.0005	0.06	1.35	1.4	0.4	0.2	5.4	0.01	0.04	2.4	0.011	0.06	1.33	28	0.09	5.4	74	0.8	0.001	WH13135203
ESM13-041	0.0005	0.15	2.19	6.8	1.5	0.1	112.5	0.005	0.03	0.5	0.007	0.02	0.64	44	0.05	23.6	100	1.6	0.003	WH13135203

Elko 2013 Soil Descriptions and Results

Sample #	Re_ppm	S_Perc	Sb_ppm	Sc_ppm	Se_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Te_ppm	Th_ppm	Ti_Perc	Tl_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Zn_ppm	Zr_ppm	Au_ppm*	Certificate
ESM13-042	0.0005	0.04	3.6	9.4	1.4	0.2	84.2	0.005	0.03	3.1	0.03	0.04	0.75	68	0.19	18.05	112	3.3	0.006	WH13135203
ESM13-043	0.0005	0.05	1.71	10.2	0.9	0.1	99.8	0.005	0.03	2.3	0.036	0.04	0.63	94	0.1	16.8	104	2.3	0.004	WH13135203
ESM13-044	0.0005	0.04	1.52	6.9	0.8	0.2	50.3	0.005	0.05	2.4	0.02	0.04	0.86	58	0.1	15.6	89	2.2	0.005	WH13135203
ESM13-045	0.0005	0.05	1.44	6.1	0.7	0.1	56.3	0.005	0.05	2.3	0.017	0.07	0.75	49	0.1	15.2	91	2.2	0.002	WH13135203
ESM13-046	0.0005	0.06	1.53	3.4	1.3	0.2	56	0.005	0.04	2	0.021	0.06	1.1	56	0.17	18.15	88	1.2	0.002	WH13135203
ESM13-047	0.0005	0.04	1.55	10.9	1.3	0.4	160	0.005	0.02	4.3	0.167	0.15	0.78	149	0.11	20.9	122	4.8	0.005	WH13135203
ESM13-048	0.0005	0.02	0.84	14.6	1	0.2	154.5	0.005	0.02	5.1	0.164	0.16	0.9	163	0.09	25.5	139	5.9	0.002	WH13135203
ESM13-049	0.0005	0.07	1.34	9.9	1.1	0.3	171	0.01	0.02	2	0.122	0.09	0.54	170	0.12	25.6	116	2.5	0.002	WH13135203
ESM13-050	0.0005	0.01	2.04	16	0.7	0.5	96	0.005	0.01	2.8	0.29	0.14	0.47	177	0.12	16.3	254	2.6	0.002	WH13135203
ESM13-051	0.0005	0.05	0.37	7.7	0.9	0.3	129	0.005	0.02	1.6	0.04	0.06	0.59	104	0.07	23.2	107	1.1	0.001	WH13135203
ESM13-052	0.0005	0.06	0.33	10.2	0.4	0.6	74.7	0.01	0.02	1.5	0.417	0.06	0.34	201	0.15	7.81	81	2.1	0.001	WH13135203
ESM13-053	0.0005	0.07	0.35	10	0.6	0.4	146.5	0.01	0.01	1.6	0.275	0.08	0.31	171	0.15	11.65	90	1.9	0.001	WH13135203
ESM13-054	0.0005	0.06	0.22	11.3	0.8	0.4	157.5	0.01	0.02	1.6	0.266	0.06	0.27	171	0.08	14.75	91	1.2	0.001	WH13135203

\*2013 sample

2013 samples

Appendix 2  
Laboratory Certificates



ALS Canada Ltd.  
 2103 Dollarton Hwy  
 North Vancouver BC V7H 0A7  
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: CATHRO RESOURCES  
 2560 TELFORD PLACE  
 KAMLOOPS BC V1S 0A3

Page: 1  
 Finalized Date: 9- AUG- 2013  
 Account: CATRES

**CERTIFICATE WH13135202**

Project: Elko Project  
 P.O. No.:  
 This report is for 11 Rock samples submitted to our lab in Whitehorse, YT, Canada on 26-JUL- 2013.  
 The following have access to data associated with this certificate:  
 MIKE CATHRO  
 ADAM TRAVIS

*Elko Rocks  
 2013*

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	INSTRUMENT
Au- TL43	Trace Level Au - 25g AR	ICP- MS
ME- MS41	51 anal. aqua regia ICPMS	

To: CATHRO RESOURCES  
 ATTN: MIKE CATHRO  
 2560 TELFORD PLACE  
 KAMLOOPS BC V1S 0A3

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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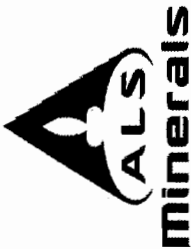
Page: 2 - A  
 Total # Pages: 4 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 14- AUG-2013  
 Account: CATRES

Project: Elko Project

**CERTIFICATE OF ANALYSIS WH13135203**

Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-TL43 Au ppm	ME-MS41 Ag ppm	ME-MS41 Al %	ME-MS41 As ppm	ME-MS41 Au ppm	ME-MS41 B ppm	ME-MS41 Ba ppm	ME-MS41 Be ppm	ME-MS41 Bi ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm
ESAI3-001	0.22	0.002	0.04	0.87	5.6	<0.2	<10	170	0.32	0.04	3.37	0.19	17.25	10.2	43
ESAI3-002	0.35	0.003	0.08	3.91	39.5	<0.2	<10	620	2.17	0.06	2.26	0.14	68.0	55.1	300
ESAI3-003	0.26	0.020	0.34	2.18	615	<0.2	<10	200	1.31	0.14	1.36	0.29	55.2	44.7	138
ESAI3-004	0.38	0.038	0.28	1.49	1140	<0.2	<10	230	1.08	0.20	1.61	0.31	62.8	54.2	81
ESAI3-005	0.42	0.005	0.07	4.20	135.0	<0.2	<10	1160	3.09	0.07	2.34	0.15	79.3	57.0	292
ESAI3-006	0.42	0.038	0.14	2.90	1550	<0.2	<10	550	1.73	0.06	2.90	0.19	78.8	59.2	251
ESAI3-007	0.31	0.002	0.07	3.42	28.9	<0.2	<10	540	1.78	0.17	1.14	0.20	76.1	47.4	178
ESAI3-008	0.40	0.004	0.07	2.23	44.4	<0.2	<10	40	0.50	0.58	0.10	0.14	23.6	26.9	32
ESAI3-009	0.46	0.010	0.58	1.27	42.3	<0.2	<10	140	0.34	0.53	0.19	0.44	34.2	25.9	21
ESAI3-010	0.29	0.009	0.08	1.85	43.3	<0.2	<10	50	0.57	0.55	0.08	0.14	27.4	33.1	26
ESAI3-011	0.39	0.073	0.10	2.33	36.7	<0.2	<10	110	0.76	0.57	0.21	0.09	30.4	41.6	46
ESAI3-012	0.45	0.002	0.05	3.72	15.8	<0.2	<10	820	1.93	0.08	2.32	0.14	103.0	57.8	230
ESAI3-013	0.38	0.002	0.06	4.42	24.0	<0.2	<10	780	3.01	0.07	1.73	0.16	81.8	53.8	235
ESAI3-014	0.30	0.001	0.03	3.31	6.8	<0.2	<10	380	1.38	0.05	5.36	0.18	54.4	54.8	397
ESAI3-015	0.35	0.001	0.10	3.61	7.5	<0.2	<10	250	1.59	0.10	0.26	0.26	83.6	60.2	258
ESAI3-016	0.23	0.001	0.04	4.16	5.1	<0.2	<10	180	1.71	0.07	1.67	0.11	75.8	38.6	257
ESAI3-017	0.32	0.001	0.05	4.32	2.7	<0.2	<10	1130	1.87	0.06	1.76	0.10	67.9	45.4	286
ESAI3-018	0.40	0.001	0.05	4.15	4.5	<0.2	<10	450	1.51	0.07	1.96	0.20	99.8	50.5	249
ESAI3-019	0.31	0.002	0.04	3.95	9.3	<0.2	<10	820	1.21	0.04	2.22	0.07	44.1	54.7	303
ESAI3-020	0.30	0.001	0.03	3.76	1.6	<0.2	<10	740	1.43	0.03	1.80	0.11	51.5	44.2	220
ESAI3-021	0.29	0.001	0.05	3.50	0.9	<0.2	<10	280	1.22	0.04	1.85	0.08	38.6	39.9	284
ESAI3-022	0.26	0.001	0.07	2.67	8.6	<0.2	<10	280	1.59	0.14	0.95	0.22	124.0	24.9	100
ESAI3-023	0.33	0.003	0.16	2.94	5.5	<0.2	<10	350	1.34	0.11	5.30	0.38	71.2	50.0	166
ESAI3-024	0.36	0.002	0.12	2.93	7.0	<0.2	<10	140	1.37	0.13	1.95	0.79	58.4	40.8	297
ESAI3-025	0.27	0.001	0.09	3.35	1.7	<0.2	<10	110	2.23	0.10	1.48	0.19	129.0	35.0	70
ESAI3-026	0.32	0.003	0.09	1.23	146.5	<0.2	<10	390	0.68	0.11	1.19	0.34	52.4	44.8	30
ESAI3-027	0.30	0.004	0.07	0.88	161.5	<0.2	<10	320	0.38	0.09	2.15	0.29	39.8	46.6	27
ESAI3-028	0.30	0.001	0.06	3.90	11.3	<0.2	<10	1190	1.65	0.06	1.30	0.12	55.7	38.2	107
ESAI3-029	0.41	0.002	0.12	6.46	20.9	<0.2	<10	1020	3.12	0.11	2.70	0.35	132.5	78.9	386
ESAI3-030	0.32	0.002	0.07	3.14	6.3	<0.2	<10	400	1.35	0.07	1.27	0.23	56.7	39.0	135
ESAI3-031	0.28	0.002	0.14	2.15	14.5	<0.2	<10	590	0.57	0.13	1.24	0.28	64.8	29.5	99
ESAI3-032	0.33	0.002	0.23	1.66	7.6	<0.2	<10	430	0.32	0.08	4.08	0.58	26.3	19.3	96
ESAI3-033	0.31	0.002	0.19	2.20	7.8	<0.2	<10	490	0.52	0.10	4.35	0.46	49.2	37.4	100
ESAI3-034	0.26	0.001	0.09	2.89	8.3	<0.2	<10	570	0.60	0.09	1.31	0.68	66.6	34.6	174
ESAI3-035	0.32	0.003	0.18	1.88	36.0	<0.2	<10	890	0.66	0.09	1.99	0.85	68.9	46.0	102
ESAI3-036	0.34	0.006	1.52	2.02	17.9	<0.2	<10	440	0.52	0.15	0.45	4.99	57.3	22.6	40
ESAI3-037	0.37	0.001	0.13	3.20	12.2	<0.2	<10	410	0.29	0.07	1.27	0.81	69.3	50.6	164
ESAI3-038	0.28	0.002	2.38	1.62	49.9	<0.2	<10	320	0.41	0.19	0.07	0.26	28.3	6.5	38
ESAI3-039	0.33	0.001	1.75	1.42	21.6	<0.2	<10	610	0.56	0.20	0.04	0.11	21.2	3.7	72
ESAI3-040	0.32	0.003	0.07	1.41	16.7	<0.2	<10	70	0.32	0.31	0.05	0.19	29.7	8.9	25

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



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 Total # Pages: 4 (A - D)  
 Plus Appendix Pages  
 Finalized Date: 14-AUG-2013  
 Account: CATRES

Project: Elko Project

**CERTIFICATE OF ANALYSIS WH13135203**

Sample Description	Method Analyte Units LOR	ME-MS41 Cs ppm 0.05	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01
ESA13-001		0.41	22.2	2.01	3.13	0.06	0.04	0.06	0.020	0.04	9.5	7.5	0.77	582	0.38	0.01
ESA13-002		10.80	75.8	8.45	16.60	0.26	0.15	0.04	0.066	0.86	35.8	59.8	4.50	1340	0.72	0.01
ESA13-003		3.70	77.0	7.54	9.57	0.25	0.03	0.05	0.082	0.13	29.9	37.1	1.99	1400	0.01	0.01
ESA13-004		2.84	126.5	8.24	6.82	0.21	0.05	0.06	0.078	0.07	33.3	20.5	1.29	1660	3.12	0.01
ESA13-005		13.05	96.5	8.04	19.00	0.39	0.11	0.01	0.079	0.80	42.0	59.5	5.21	1140	0.74	0.01
ESA13-006		9.98	93.1	8.10	13.60	0.32	0.08	0.02	0.073	0.40	40.2	40.4	3.06	1480	1.91	0.01
ESA13-007		8.79	75.0	7.44	13.45	0.21	0.09	0.02	0.066	0.39	40.4	51.8	3.44	1360	0.80	0.01
ESA13-008		0.89	56.7	4.97	6.40	0.05	0.05	0.03	0.018	0.04	11.3	62.0	0.78	1460	1.98	0.01
ESA13-009		1.00	129.0	3.74	3.53	0.06	0.03	0.09	0.023	0.11	17.9	18.0	0.44	3000	9.66	0.02
ESA13-010		0.97	60.0	4.78	5.11	0.06	0.04	0.03	0.018	0.04	13.1	45.1	0.61	1560	1.82	0.01
ESA13-011		2.55	65.0	5.15	6.56	0.10	0.03	0.02	0.020	0.05	15.1	63.5	1.02	1620	1.55	<0.01
ESA13-012		7.37	97.7	8.08	15.70	0.31	0.12	0.03	0.067	0.41	51.4	48.2	3.94	1400	0.73	0.01
ESA13-013		10.40	92.8	9.05	19.00	0.32	0.06	0.03	0.089	0.65	44.4	56.4	4.93	1350	0.59	0.01
ESA13-014		3.55	89.2	7.06	17.40	0.23	0.18	0.02	0.048	0.32	28.8	31.9	3.66	1140	0.72	0.01
ESA13-015		2.85	131.5	8.02	16.80	0.20	0.10	0.03	0.061	0.25	46.6	36.1	3.63	1400	0.88	0.01
ESA13-016		1.88	58.6	7.97	16.95	0.24	0.08	0.02	0.073	0.32	42.6	36.2	4.41	1020	0.57	0.01
ESA13-017		2.35	62.7	7.99	17.25	0.23	0.08	0.02	0.061	0.58	37.4	45.6	4.93	1100	0.50	0.01
ESA13-018		1.95	62.8	7.91	17.75	0.25	0.09	0.02	0.065	0.38	52.9	42.7	4.36	1280	0.82	0.01
ESA13-019		3.47	95.5	6.89	14.70	0.18	0.19	0.04	0.034	0.46	24.5	49.2	4.74	1010	0.38	0.01
ESA13-020		3.14	69.8	7.37	15.35	0.18	0.13	0.04	0.045	0.49	27.0	39.4	4.26	1140	0.59	0.01
ESA13-021		3.80	76.3	6.29	14.00	0.16	0.16	0.03	0.022	0.41	21.5	36.7	3.69	926	0.41	0.01
ESA13-022		2.22	32.4	5.36	10.00	0.15	0.06	0.05	0.057	0.05	66.1	21.0	1.62	1090	1.28	0.01
ESA13-023		3.28	109.5	6.84	13.30	0.14	0.08	0.07	0.053	0.15	38.4	21.0	2.75	1500	1.17	0.01
ESA13-024		1.25	51.6	5.92	10.00	0.15	0.12	0.05	0.062	0.06	32.7	23.7	2.55	1490	0.77	0.01
ESA13-025		4.59	72.9	5.85	16.05	0.24	0.07	0.04	0.061	0.29	65.8	30.8	3.11	1480	0.62	0.01
ESA13-026		0.59	54.1	9.37	4.50	0.16	0.06	0.07	0.099	0.05	25.8	13.2	0.54	2150	1.16	0.01
ESA13-027		0.88	43.6	8.89	3.47	0.15	0.03	0.08	0.092	0.05	19.6	8.1	0.38	1980	1.31	0.01
ESA13-028		15.00	39.8	8.50	16.90	0.24	0.05	0.04	0.080	0.39	29.6	55.1	4.52	1160	0.37	<0.01
ESA13-029		12.95	155.5	14.45	28.1	0.44	0.11	0.03	0.127	0.69	72.2	63.5	6.69	2260	1.47	0.01
ESA13-030		1.10	81.5	7.02	13.05	0.28	0.04	0.02	0.072	0.22	29.5	31.9	3.08	1220	0.84	<0.01
ESA13-031		0.43	111.0	4.67	7.82	0.16	0.04	0.07	0.050	0.08	36.6	17.2	1.13	1660	1.00	<0.01
ESA13-032		0.47	86.7	3.59	3.89	0.08	0.04	0.07	0.022	0.13	13.8	13.4	0.70	565	0.57	<0.01
ESA13-033		0.60	96.6	5.17	6.74	0.11	0.03	0.07	0.041	0.10	25.4	17.6	1.38	1340	0.79	<0.01
ESA13-034		0.48	50.9	6.85	10.75	0.18	0.04	0.07	0.075	0.09	35.8	23.8	1.54	2050	0.92	<0.01
ESA13-035		0.65	67.6	5.54	5.87	0.16	0.06	0.10	0.049	0.11	39.5	17.2	0.90	2370	2.41	<0.01
ESA13-036		1.11	96.2	4.67	6.32	0.14	0.02	0.29	0.044	0.09	28.8	17.6	0.84	867	17.35	<0.01
ESA13-037		1.07	95.4	7.45	14.00	0.18	0.03	0.06	0.073	0.10	35.8	23.6	1.90	2020	2.00	<0.01
ESA13-038		2.58	61.1	3.15	5.14	0.12	0.03	0.93	0.042	0.16	16.5	15.6	0.84	284	36.6	<0.01
ESA13-039		2.15	148.0	2.95	3.96	0.14	0.04	0.33	0.042	0.25	11.7	12.6	0.87	123	6.35	<0.01
ESA13-040		0.93	38.5	3.21	5.52	0.09	<0.02	0.04	0.022	0.03	14.4	14.2	0.32	596	2.04	<0.01



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Method Analyte Units LOR	ME-MS41 Nb ppm	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm
ESAI3-001	1.09	30.7	1620	3.2	6.0	<0.001	0.23	0.42	2.5	0.5	<0.2	182.5	0.01	0.02	0.3
ESAI3-002	6.29	138.5	4050	7.0	69.3	<0.001	0.03	4.54	16.9	0.7	0.4	266	0.01	0.01	3.6
ESAI3-003	1.36	102.0	2990	14.2	18.6	<0.001	0.07	23.0	14.9	1.4	0.3	183.0	<0.01	0.03	1.9
ESAI3-004	0.77	101.5	3660	21.6	8.2	<0.001	0.10	52.2	13.8	1.9	0.2	237	<0.01	0.06	2.1
ESAI3-005	1.62	154.5	4230	9.7	52.1	<0.001	0.03	13.30	15.3	0.8	0.5	298	<0.01	0.02	3.9
ESAI3-006	1.78	135.5	4540	17.1	37.6	0.001	0.02	20.4	16.7	1.1	0.4	290	<0.01	0.04	3.6
ESAI3-007	2.33	92.3	3320	17.6	28.9	<0.001	0.01	1.09	13.4	0.8	0.5	133.5	<0.01	0.03	4.7
ESAI3-008	0.08	42.9	710	35.6	2.9	<0.001	0.03	0.6	2.2	0.6	<0.2	17.9	<0.01	0.07	5.3
ESAI3-009	0.12	38.7	2150	37.1	7.7	<0.001	0.27	3.82	1.1	2.6	<0.2	110.5	<0.01	0.25	1.5
ESAI3-010	0.07	43.3	690	43.5	3.0	<0.001	0.02	1.21	2.2	0.5	<0.2	16.8	<0.01	0.10	5.9
ESAI3-011	0.36	48.8	730	54.4	3.7	<0.001	0.01	1.50	3.2	0.5	<0.2	21.4	<0.01	0.06	9.0
ESAI3-012	1.96	113.5	4780	10.2	27.3	<0.001	0.02	1.51	14.7	0.9	0.4	251	<0.01	0.02	5.0
ESAI3-013	3.97	117.5	4680	8.9	60.1	<0.001	0.03	1.12	16.5	0.9	0.4	210	0.01	0.02	3.8
ESAI3-014	4.95	156.5	3020	5.0	31.4	<0.001	0.02	1.36	12.3	0.6	0.5	280	0.01	<0.01	3.0
ESAI3-015	7.67	159.5	3810	12.7	30.3	<0.001	0.04	0.54	8.3	0.7	0.4	218	0.01	0.01	4.1
ESAI3-016	7.44	101.5	4380	9.9	35.4	<0.001	0.03	0.22	10.7	0.7	0.4	183.0	0.01	0.01	3.3
ESAI3-017	6.39	120.5	4720	5.5	44.6	<0.001	0.04	0.19	10.6	0.5	0.5	209	0.01	0.01	3.2
ESAI3-018	3.99	124.0	5450	7.6	33.0	<0.001	0.02	0.52	11.7	0.6	0.4	218	0.01	0.01	4.2
ESAI3-019	8.24	158.0	3110	3.3	36.8	0.001	0.03	0.20	6.3	0.3	0.4	145.0	0.01	0.01	2.0
ESAI3-020	8.43	90.6	3780	3.4	32.6	<0.001	0.04	0.26	8.4	0.7	0.4	136.0	0.01	<0.01	2.5
ESAI3-021	14.20	118.0	2970	3.0	35.8	<0.001	0.04	0.17	3.5	1.0	0.4	114.0	0.02	0.01	1.7
ESAI3-022	10.25	54.2	1600	12.9	6.6	<0.001	0.05	1.15	6.3	1.0	0.6	70.8	0.01	0.01	2.5
ESAI3-023	9.78	111.5	3950	16.2	14.2	<0.001	0.13	0.63	5.1	1.0	0.4	319	0.03	0.03	2.9
ESAI3-024	9.45	153.0	1860	27.7	7.8	<0.001	0.04	0.79	11.0	0.8	0.5	85.6	0.01	0.02	3.1
ESAI3-025	14.15	63.1	3950	43.9	25.8	0.001	0.03	0.70	6.3	1.0	0.5	118.5	0.01	0.01	6.4
ESAI3-026	0.31	69.0	2430	12.5	4.3	<0.001	0.09	3.50	16.6	1.9	0.2	80.3	0.01	0.05	1.3
ESAI3-027	0.28	63.0	2980	7.5	3.3	<0.001	0.12	5.63	20.0	1.9	0.2	139.5	0.01	0.02	0.6
ESAI3-028	3.31	48.4	3500	6.6	25.9	<0.001	0.01	0.92	13.5	0.8	0.4	146.5	0.01	0.02	1.9
ESAI3-029	6.45	180.5	5830	13.2	7.8	<0.001	0.04	1.78	28.3	1.6	0.7	281	0.02	0.03	6.8
ESAI3-030	1.55	68.7	2280	7.6	22.8	<0.001	0.03	0.56	17.2	0.9	0.4	93.2	<0.01	0.03	2.8
ESAI3-031	0.59	46.8	1600	9.0	8.0	<0.001	0.06	0.56	9.4	1.5	0.3	120.0	0.01	0.03	1.0
ESAI3-032	2.38	85.9	2100	7.5	8.1	<0.001	0.10	0.67	3.3	1.0	<0.2	79.6	0.01	0.02	0.9
ESAI3-033	0.67	65.8	3390	8.3	7.1	0.001	0.11	0.97	6.7	1.2	0.2	180.5	0.01	0.03	0.6
ESAI3-034	0.41	102.0	1860	7.2	9.5	0.001	0.07	0.76	18.7	1.5	0.3	55.1	0.01	0.03	1.5
ESAI3-035	0.39	108.5	1890	7.5	9.1	<0.001	0.10	2.99	9.6	2.1	0.2	76.3	<0.01	0.03	1.2
ESAI3-036	0.52	114.0	1420	10.3	10.4	0.001	0.04	6.00	6.7	2.9	0.4	38.0	<0.01	0.05	1.3
ESAI3-037	0.71	81.3	2740	5.6	13.5	<0.001	0.06	0.83	16.5	1.8	0.3	112.5	<0.01	0.02	1.9
ESAI3-038	1.17	58.9	760	10.7	18.4	0.001	0.15	16.80	2.7	6.6	0.5	23.9	<0.01	0.11	2.5
ESAI3-039	1.28	76.4	780	9.0	26.4	<0.001	0.40	4.37	2.2	10.0	1.1	62.3	<0.01	0.07	1.5
ESAI3-040	0.31	21.4	770	17.3	5.4	<0.001	0.05	1.63	0.6	0.8	0.4	9.5	<0.01	0.06	0.2





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**Minerals**

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Sample Description	Method Analyte Units LOR	ME-MS41 Ti %	ME-MS41 Ti ppm	ME-MS41 U ppm	ME-MS41 V ppm	ME-MS41 W ppm	ME-MS41 Y ppm	ME-MS41 Zn ppm	ME-MS41 Zr ppm
ESA13-001		0.039	0.04	0.21	43	<0.05	4.02	28	1.6
ESA13-002		0.401	0.19	0.31	196	0.24	11.40	110	5.5
ESA13-003		0.093	0.08	0.43	113	0.32	15.00	122	1.1
ESA13-004		0.041	0.06	0.57	75	0.16	16.75	130	1.9
ESA13-005		0.294	0.14	0.26	211	0.13	13.00	117	4.0
ESA13-006		0.189	0.13	0.36	161	0.16	14.50	114	3.2
ESA13-007		0.277	0.11	0.44	166	0.13	12.65	107	3.6
ESA13-008		<0.005	0.03	1.26	22	<0.05	3.43	102	1.5
ESA13-009		0.009	0.13	3.77	28	0.07	9.21	102	0.9
ESA13-010		<0.005	0.03	1.57	19	<0.05	4.44	106	1.0
ESA13-011		0.018	0.03	1.42	29	<0.05	6.44	104	1.2
ESA13-012		0.246	0.10	0.40	211	0.08	16.20	113	4.5
ESA13-013		0.311	0.16	0.24	258	0.09	14.00	124	2.1
ESA13-014		0.432	0.14	0.55	190	0.43	7.75	94	5.4
ESA13-015		0.329	0.11	0.68	185	0.28	11.70	121	3.6
ESA13-016		0.307	0.10	0.32	216	0.18	10.60	115	2.5
ESA13-017		0.376	0.09	0.40	189	0.30	10.80	108	3.0
ESA13-018		0.288	0.10	0.49	196	0.15	14.35	121	4.0
ESA13-019		0.413	0.09	0.70	175	0.23	8.80	92	7.2
ESA13-020		0.399	0.08	0.30	173	0.22	9.15	94	3.7
ESA13-021		0.404	0.11	0.36	146	0.27	7.96	84	4.4
ESA13-022		0.285	0.09	0.73	128	0.29	20.0	85	2.3
ESA13-023		0.247	0.09	0.50	139	0.42	11.60	101	2.5
ESA13-024		0.336	0.09	0.45	151	0.31	14.75	134	3.5
ESA13-025		0.393	0.23	0.62	200	0.16	13.35	118	3.9
ESA13-026		0.016	0.06	0.40	53	0.13	22.0	100	1.3
ESA13-027		0.013	0.05	0.26	61	0.07	17.65	97	0.7
ESA13-028		0.293	0.09	0.26	241	0.08	12.15	108	1.5
ESA13-029		0.363	0.18	0.66	386	0.24	26.5	204	4.0
ESA13-030		0.133	0.07	0.39	199	0.09	17.15	98	1.3
ESA13-031		0.026	0.06	0.45	100	0.10	27.3	87	0.7
ESA13-032		0.017	0.05	0.52	27	0.12	16.35	79	1.0
ESA13-033		0.037	0.06	0.43	89	0.08	19.20	86	0.8
ESA13-034		0.030	0.09	0.80	146	0.07	28.3	178	1.0
ESA13-035		0.032	0.13	1.09	75	0.10	28.9	127	2.1
ESA13-036		0.034	0.29	4.54	165	0.14	23.7	592	<0.5
ESA13-037		0.057	0.14	0.80	228	0.06	20.0	175	0.9
ESA13-038		0.049	0.84	5.86	448	0.50	7.95	162	1.6
ESA13-039		0.032	0.56	5.24	72	0.31	9.69	223	3.7
ESA13-040		0.017	0.12	0.71	49	0.14	2.56	66	<0.5



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Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-TL43 Au ppm	ME-MS41 Ag ppm	ME-MS41 Au %	ME-MS41 As ppm	ME-MS41 B ppm	ME-MS41 Ba ppm	ME-MS41 Be ppm	ME-MS41 Bi ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm
ESA13-041	0.42	0.002	0.05	1.75	25.1	<0.2	60	0.35	0.67	0.07	0.12	17.05	22.5	29
ESA13-042	0.42	0.002	0.04	2.08	14.6	<0.2	100	0.41	0.35	0.10	0.18	23.5	12.7	34
ESA13-043	0.37	0.011	0.03	1.53	5.0	<0.2	50	0.50	0.19	0.05	0.19	16.65	14.8	25
ESA13-044	0.33	0.007	0.07	1.30	227	<0.2	390	0.28	0.14	7.30	0.18	44.0	178.5	130
ESA13-045	0.35	0.002	0.10	0.96	71.2	<0.2	510	0.35	0.13	0.96	0.17	36.0	36.2	25
ESA13-046	0.42	0.003	0.14	1.47	139.5	<0.2	350	0.48	0.13	1.42	0.46	49.3	75.1	83
ESA13-047	0.25	0.006	0.10	1.99	10.2	<0.2	360	0.72	0.18	0.61	0.25	58.0	22.2	56
ESA13-048	0.38	0.002	0.04	3.53	9.7	<0.2	690	1.96	0.13	1.01	0.17	66.2	32.2	264
ESA13-049	0.38	0.002	0.07	3.73	6.4	<0.2	300	1.85	0.09	1.47	0.17	97.2	39.9	152
ESA13-050	0.39	0.005	0.10	3.27	7.2	<0.2	570	2.02	0.13	2.33	0.23	100.5	57.2	227
ESA13-051	0.38	0.002	0.07	4.00	9.4	<0.2	280	1.46	0.11	1.40	0.22	78.3	54.0	213
ESA13-052	0.42	0.001	0.06	4.06	30.1	<0.2	290	1.22	0.06	2.70	0.15	43.8	79.0	452
ESA13-053	0.31	0.001	0.04	2.92	4.4	<0.2	690	1.04	0.12	1.34	0.20	44.4	28.5	266
ESA13-054	0.29	0.002	0.05	3.15	2.5	<0.2	880	1.23	0.05	1.72	0.13	46.9	32.4	188
ESA13-055	0.39	0.002	0.09	3.27	3.3	<0.2	470	1.38	0.04	1.97	0.16	43.0	37.5	95
ESA13-056	0.38	0.001	0.04	1.58	3.2	<0.2	200	1.35	0.03	9.98	5.55	64.6	37.9	138
ESA13-057	0.39	0.001	0.09	3.29	<2	<0.2	130	0.72	0.05	12.30	0.34	51.5	38.6	272
ESM13-001	0.69	0.001	0.03	3.40	1.3	<0.2	1150	1.23	0.03	1.42	0.08	56.6	48.4	317
ESM13-002	0.46	0.001	0.08	3.71	6.5	<0.2	280	1.50	0.08	1.44	0.11	53.4	30.6	149
ESM13-003	0.64	0.001	0.08	4.36	3.5	<0.2	140	1.93	0.11	1.81	0.13	87.9	44.5	243
ESM13-004	0.63	0.005	0.15	2.91	120.0	<0.2	340	1.79	0.09	2.90	0.20	87.0	59.0	284
ESM13-005	0.37	0.005	0.10	3.62	121.5	<0.2	870	2.80	0.08	1.41	0.14	74.6	52.7	253
ESM13-006	0.50	0.002	0.07	3.80	27.0	<0.2	860	2.34	0.07	1.70	0.14	70.0	45.8	243
ESM13-007	0.46	0.003	0.14	7.21	39.8	<0.2	530	3.08	0.39	2.87	0.36	168.0	98.6	481
ESM13-008	0.46	0.003	0.42	1.05	47.8	<0.2	190	0.30	0.49	0.25	0.49	31.0	24.3	22
ESM13-009	0.49	0.017	0.98	1.36	127.0	<0.2	210	0.35	0.56	0.25	0.71	50.5	43.5	27
ESM13-010	0.81	0.019	0.52	1.17	66.2	<0.2	210	0.31	0.44	0.11	0.43	29.1	30.4	23
ESM13-011	0.56	0.014	0.06	2.33	30.4	<0.2	250	1.05	0.15	1.00	0.23	109.0	25.1	58
ESM13-012	0.55	0.004	0.06	3.85	9.2	<0.2	330	1.59	0.07	1.84	0.14	87.3	41.4	234
ESM13-013	0.52	0.002	0.06	3.21	14.3	<0.2	210	1.43	0.12	1.42	0.13	79.5	35.3	220
ESM13-014	0.59	0.002	0.04	3.62	12.9	<0.2	390	1.61	0.06	1.46	0.08	77.7	37.3	220
ESM13-015	0.49	0.001	0.05	3.26	8.9	<0.2	280	1.50	0.09	0.79	0.15	73.5	31.9	217
ESM13-016	0.48	0.001	0.07	3.42	9.9	<0.2	300	1.68	0.09	0.86	0.17	81.6	34.3	231
ESM13-017	0.49	0.001	0.07	2.92	14.2	<0.2	280	1.00	0.14	0.58	0.13	59.4	22.7	160
ESM13-018	0.51	0.001	0.07	2.80	7.1	<0.2	420	1.44	0.11	0.88	0.23	72.9	28.1	137
ESM13-019	0.43	0.001	0.05	2.74	4.5	<0.2	730	1.21	0.10	1.19	0.11	49.9	28.3	158
ESM13-020	0.35	0.001	4.83	0.64	15.6	<0.2	780	0.25	0.12	0.12	0.33	10.35	1.1	51
ESM13-021	0.35	0.002	1.99	0.21	3.2	<0.2	140	0.12	0.04	1.32	0.22	4.26	0.5	9
ESM13-022	0.36	0.002	0.25	1.90	36.3	<0.2	290	0.89	0.47	1.80	0.67	44.8	47.8	91
ESM13-023	0.54	0.001	0.11	3.78	4.6	<0.2	550	2.33	0.07	1.49	0.14	57.0	44.0	162



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Method Analyte Units LOR	ME-MS41 Cs ppm	ME-MS41 Cu ppm	ME-MS41 Fe %	ME-MS41 Ga ppm	ME-MS41 Ge ppm	ME-MS41 Hf ppm	ME-MS41 Hg ppm	ME-MS41 In ppm	ME-MS41 K %	ME-MS41 La ppm	ME-MS41 Li ppm	ME-MS41 Mg %	ME-MS41 Mn ppm	ME-MS41 Mo ppm	ME-MS41 Na %
ESAI3-041	2.34	35.8	3.92	5.80	0.10	0.02	0.03	0.023	0.04	8.5	30.8	0.48	1310	1.62	<0.01
ESAI3-042	1.55	21.7	3.47	5.96	0.10	0.02	0.03	0.027	0.06	12.0	23.4	0.56	662	1.80	<0.01
ESAI3-043	2.40	13.1	3.40	4.27	0.09	0.02	0.05	0.016	0.04	8.2	29.2	0.43	1300	0.69	<0.01
ESAI3-044	0.33	192.0	5.31	3.97	0.13	0.10	0.05	0.035	0.04	22.0	24.1	0.78	1120	2.58	<0.01
ESAI3-045	0.65	34.6	4.13	2.70	0.09	0.04	0.04	0.025	0.03	18.7	9.7	0.43	814	1.21	<0.01
ESAI3-046	0.56	74.2	6.46	4.36	0.11	0.07	0.04	0.049	0.03	24.4	22.3	0.61	2420	1.00	<0.01
ESAI3-047	1.26	28.3	3.70	6.92	0.10	0.02	0.03	0.038	0.04	23.4	16.5	0.78	950	1.48	<0.01
ESAI3-048	2.32	42.1	6.09	12.65	0.18	0.03	0.02	0.055	0.08	29.7	39.7	3.26	1220	0.89	<0.01
ESAI3-049	2.95	81.4	7.43	17.20	0.27	0.03	0.02	0.065	0.33	55.6	40.0	3.49	1280	1.35	<0.01
ESAI3-050	4.65	139.5	8.24	17.35	0.30	0.07	0.05	0.079	0.32	57.0	29.7	3.12	1560	1.25	<0.01
ESAI3-051	2.02	81.5	8.13	17.25	0.27	0.08	0.05	0.057	0.43	43.6	37.3	3.62	1550	1.11	<0.01
ESAI3-052	1.88	103.0	8.49	15.40	0.24	0.08	0.03	0.064	0.41	22.5	38.6	3.96	790	0.63	<0.01
ESAI3-053	1.44	39.2	5.60	10.25	0.15	0.11	0.04	0.057	0.09	17.2	34.0	2.35	1000	0.80	<0.01
ESAI3-054	1.62	44.2	6.24	11.90	0.28	0.09	0.05	0.058	0.37	23.9	28.6	3.04	1170	1.03	<0.01
ESAI3-055	1.64	81.4	6.88	12.65	0.30	0.08	0.06	0.068	0.32	22.4	25.1	3.49	1180	0.59	<0.01
ESAI3-056	7.29	42.0	5.94	5.93	0.15	0.09	0.09	0.062	0.19	31.7	11.9	1.30	1080	1.33	<0.01
ESAI3-057	1.70	63.1	5.87	14.40	0.15	0.10	0.04	0.035	0.10	26.1	25.3	3.14	1420	0.77	<0.01
ESMI3-001	1.16	29.4	6.52	13.45	0.20	0.06	0.03	0.066	0.39	28.7	44.1	4.53	1200	0.17	<0.01
ESMI3-002	1.89	53.0	6.89	14.95	0.20	0.04	0.03	0.069	0.21	28.1	31.1	3.88	1140	0.90	<0.01
ESMI3-003	1.80	83.8	8.35	20.0	0.33	0.14	0.02	0.078	0.38	47.6	38.3	4.86	1180	1.40	<0.01
ESMI3-004	4.02	105.0	8.47	14.55	0.27	0.07	0.04	0.078	0.33	46.3	33.5	2.75	1260	1.57	<0.01
ESMI3-005	12.05	81.7	8.67	15.45	0.26	0.05	0.04	0.083	0.48	41.1	41.7	4.88	1340	0.64	<0.01
ESMI3-006	10.75	114.5	8.78	16.60	0.30	0.07	0.03	0.086	0.63	39.0	41.8	4.35	1210	0.72	<0.01
ESMI3-007	11.55	185.5	16.80	32.6	0.27	0.22	0.07	0.115	0.76	97.6	111.5	6.08	2540	3.70	0.02
ESMI3-008	1.27	143.5	3.97	3.13	0.06	0.03	0.09	0.026	0.13	16.5	12.6	0.44	2240	7.53	0.03
ESMI3-009	1.35	220	4.83	4.36	0.07	0.02	0.11	0.035	0.11	24.5	18.0	0.58	5260	8.11	0.02
ESMI3-010	1.65	146.0	3.70	3.73	0.05	0.04	0.10	0.030	0.13	14.0	9.3	0.36	4510	7.43	0.02
ESMI3-011	2.09	56.3	5.18	7.98	0.11	0.02	0.06	0.057	0.05	51.0	19.9	1.01	968	1.60	0.01
ESMI3-012	7.58	74.4	7.87	18.50	0.19	0.11	0.05	0.058	0.26	49.9	35.7	3.66	1440	0.51	0.01
ESMI3-013	6.56	46.0	6.63	15.00	0.18	0.08	0.03	0.042	0.21	43.8	42.7	3.07	1080	0.73	0.01
ESMI3-014	4.08	46.1	7.33	15.65	0.17	0.08	0.02	0.060	0.26	41.6	39.5	3.50	1130	0.49	0.01
ESMI3-015	1.82	38.8	6.63	13.85	0.10	0.02	0.03	0.064	0.10	37.0	26.1	2.71	1320	0.66	0.01
ESMI3-016	1.98	31.1	6.98	15.25	0.11	0.03	0.03	0.066	0.11	40.4	28.6	2.88	1380	0.74	0.01
ESMI3-017	1.30	23.0	5.90	13.05	0.07	0.04	0.02	0.069	0.07	26.7	24.5	2.10	1060	0.84	0.01
ESMI3-018	1.33	35.4	5.64	10.75	0.12	0.05	0.04	0.059	0.12	30.3	27.1	2.22	1090	0.77	0.01
ESMI3-019	1.26	29.7	5.33	10.45	0.08	0.05	0.02	0.054	0.12	24.8	28.6	2.28	1060	0.77	0.01
ESMI3-020	0.77	59.8	1.56	1.97	0.07	<0.02	0.83	0.037	0.13	5.4	3.0	0.25	44	8.18	0.01
ESMI3-021	0.88	125.0	4.47	6.44	0.05	<0.05	0.68	0.012	0.05	3.0	0.5	0.03	12	5.81	0.01
ESMI3-022	0.88	125.0	4.47	6.44	0.05	0.02	0.11	0.071	0.03	24.7	12.2	0.80	2880	2.72	0.01
ESMI3-023	3.86	53.0	7.49	16.85	0.14	0.05	0.03	0.085	0.35	30.0	34.4	3.46	1240	0.45	0.01



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Method Analyte Units LOR	ME-MS41 Nb ppm	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm
ESAI3-041	0.37	23.1	1040	75.1	6.5	<0.001	0.03	1.23	1.3	0.6	0.3	6.7	<0.01	0.07	1.1
ESAI3-042	0.99	21.2	690	19.9	9.6	<0.001	0.03	1.01	2.1	0.6	0.6	9.8	<0.01	0.04	1.1
ESAI3-043	0.43	22.3	670	7.8	5.6	<0.001	0.03	0.99	1.3	0.2	0.2	5.8	<0.01	0.05	1.6
ESAI3-044	0.12	634	3410	8.6	2.6	<0.001	0.29	2.86	5.1	1.4	<0.2	266	<0.01	0.04	1.3
ESAI3-045	0.46	99.9	1230	10.6	3.3	<0.001	0.03	11.20	4.5	0.8	0.2	47.0	<0.01	0.02	1.9
ESAI3-046	0.28	138.5	1710	12.3	4.5	<0.001	0.08	2.45	5.4	1.3	0.2	64.8	0.01	0.03	0.6
ESAI3-047	1.10	44.1	1180	17.5	6.5	<0.001	0.04	1.93	3.4	0.6	0.4	43.2	<0.01	0.03	1.4
ESAI3-048	5.28	150.5	1970	10.0	18.8	<0.001	0.03	0.93	10.1	0.8	0.8	145.0	0.01	0.02	2.0
ESAI3-049	4.54	97.8	3530	13.9	39.3	<0.001	0.03	0.87	9.6	1.0	0.5	167.0	0.01	0.02	4.0
ESAI3-050	10.10	163.5	3820	20.8	37.8	<0.001	0.13	1.88	10.3	1.1	0.4	241	0.02	0.03	3.5
ESAI3-051	4.08	140.0	3710	13.6	36.3	<0.001	0.02	1.14	10.5	0.8	0.4	121.0	<0.01	0.03	3.9
ESAI3-052	1.38	306	2640	4.9	37.1	<0.001	0.02	0.48	16.8	0.9	0.5	113.5	<0.01	0.01	1.9
ESAI3-053	12.90	90.1	1110	9.9	10.2	<0.001	0.06	0.61	10.9	0.6	0.7	98.3	0.01	0.03	1.6
ESAI3-054	12.60	68.9	1690	5.1	28.6	<0.001	0.08	0.40	11.2	0.8	0.5	91.9	0.02	0.01	1.3
ESAI3-055	7.84	52.1	2510	5.2	21.9	<0.001	0.09	0.47	10.9	0.7	0.4	140.5	0.01	0.02	1.3
ESAI3-056	3.51	106.5	3960	77.1	12.7	<0.001	<0.01	1.07	10.7	1.2	0.4	145.0	0.01	0.01	3.4
ESAI3-057	6.95	136.5	3040	6.3	11.6	<0.001	0.03	0.47	5.0	0.5	0.4	364	0.01	0.02	2.6
ESMI3-001	4.33	130.0	3370	3.8	33.9	<0.001	0.02	0.28	14.4	0.7	0.5	116.0	0.01	0.03	2.7
ESMI3-002	8.57	65.2	3240	8.8	18.6	<0.001	0.06	0.42	8.8	0.7	0.5	140.0	0.01	0.01	1.7
ESMI3-003	2.29	118.5	4390	10.8	43.1	<0.001	0.01	0.90	12.1	1.0	0.4	175.0	<0.01	0.04	6.5
ESMI3-004	1.35	164.0	3890	12.0	32.2	<0.001	0.03	5.47	20.2	1.3	0.4	219	<0.01	0.03	4.0
ESMI3-005	3.30	142.5	3160	14.2	30.3	<0.001	0.03	5.61	15.9	1.1	0.4	208	<0.01	0.02	3.4
ESMI3-006	5.17	115.5	3480	8.6	53.4	<0.001	0.04	1.96	16.5	0.9	0.4	193.5	0.01	0.01	3.2
ESMI3-007	6.72	256	7320	38.0	73.1	<0.001	0.07	2.87	21.4	1.8	0.6	298	0.03	0.04	11.6
ESMI3-008	0.09	46.2	2370	35.1	10.0	0.001	0.26	4.56	0.7	2.6	<0.2	116.0	<0.01	0.27	0.5
ESMI3-009	0.24	84.4	2220	63.4	9.2	<0.001	0.16	31.9	2.4	3.9	0.2	105.5	<0.01	0.28	2.4
ESMI3-010	0.09	41.6	2480	44.8	12.8	<0.001	0.23	12.55	0.5	2.5	0.2	84.7	<0.01	0.27	0.3
ESMI3-011	2.23	54.9	2820	11.9	9.0	<0.001	0.07	2.04	5.4	1.2	0.4	110.0	0.01	0.02	1.4
ESMI3-012	7.86	113.0	4080	8.2	29.1	<0.001	0.05	1.01	8.6	0.6	0.4	253	0.02	0.01	3.7
ESMI3-013	8.00	102.5	3840	13.1	29.1	<0.001	0.03	0.93	6.6	0.7	0.4	148.0	0.02	0.01	4.4
ESMI3-014	6.51	94.4	3730	7.0	35.9	<0.001	0.03	0.83	9.6	1.0	0.5	169.0	0.01	0.01	3.1
ESMI3-015	5.47	85.2	2560	8.6	16.3	<0.001	0.06	0.71	6.5	0.4	0.5	77.6	<0.01	0.02	0.7
ESMI3-016	6.09	92.0	2720	9.3	18.0	<0.001	0.06	0.77	7.1	0.9	0.6	86.6	<0.01	0.02	0.8
ESMI3-017	7.31	61.7	1320	11.6	13.7	<0.001	0.06	0.64	5.6	0.7	0.8	42.3	0.01	0.03	0.6
ESMI3-018	7.03	64.3	2320	9.1	13.5	<0.001	0.02	0.41	9.1	0.8	0.7	72.3	0.01	0.01	2.4
ESMI3-019	8.31	72.9	1960	8.2	17.9	<0.001	0.06	0.30	8.2	0.5	0.6	74.6	0.01	0.02	1.3
ESMI3-020	0.20	32.9	2240	7.0	8.5	0.003	0.40	2.45	0.1	18.2	0.6	41.8	<0.01	0.07	<0.2
ESMI3-021	0.16	4.0	2150	3.9	2.6	0.003	0.25	4.43	0.1	9.7	<0.2	74.8	<0.01	0.03	<0.2
ESMI3-022	2.60	99.3	1820	12.7	5.6	<0.001	0.15	0.71	4.6	1.1	0.3	75.9	0.02	0.05	0.4
ESMI3-023	4.28	85.6	3500	4.6	30.8	<0.001	0.02	0.46	16.2	0.8	0.6	142.0	0.01	0.01	2.6



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Sample Description	Method Analyte Units LOR	ME-MS41 Ti %	ME-MS41 U ppm	ME-MS41 V ppm	ME-MS41 W ppm	ME-MS41 Y ppm	ME-MS41 Zn ppm	ME-MS41 Zr ppm
ESA13-041		0.018	0.08	0.77	0.13	3.26	68	0.5
ESA13-042		0.039	0.13	0.84	0.31	3.41	79	0.6
ESA13-043		0.020	0.05	0.76	0.11	2.44	71	<0.5
ESA13-044		0.005	<0.02	0.56	0.37	16.80	63	4.0
ESA13-045		0.023	0.05	0.55	0.19	13.25	86	1.3
ESA13-046		0.013	0.05	0.95	0.14	17.65	91	2.1
ESA13-047		0.033	0.09	0.74	0.15	8.09	87	1.6
ESA13-048		0.261	0.13	0.42	0.16	10.15	78	1.4
ESA13-049		0.301	0.15	0.46	0.10	12.10	122	1.8
ESA13-050		0.269	0.13	0.64	0.21	12.70	143	2.9
ESA13-051		0.267	0.14	0.73	0.08	15.10	150	4.4
ESA13-052		0.196	0.12	0.39	0.15	10.90	131	3.2
ESA13-053		0.464	0.06	0.46	0.25	8.30	76	3.3
ESA13-054		0.414	0.07	0.31	0.14	10.45	79	2.5
ESA13-055		0.303	0.07	0.37	0.15	10.80	87	2.5
ESA13-056		0.149	0.05	0.47	0.18	17.05	511	3.9
ESA13-057		0.294	0.08	0.40	0.47	9.01	90	3.1
ESM13-001		0.419	0.05	0.37	0.26	11.40	97	1.9
ESM13-002		0.308	0.07	0.32	0.14	9.69	95	1.8
ESM13-003		0.294	0.17	0.70	0.14	11.55	132	8.1
ESM13-004		0.143	0.12	0.46	0.12	15.00	125	2.7
ESM13-005		0.226	0.10	0.30	0.07	14.40	121	1.9
ESM13-006		0.309	0.12	0.27	0.13	11.20	120	2.5
ESM13-007		0.281	0.25	1.25	0.46	34.6	229	6.9
ESM13-008		0.011	0.14	2.71	0.05	7.90	127	0.7
ESM13-009		0.018	0.16	3.29	0.11	12.25	170	0.8
ESM13-010		0.008	0.14	3.29	0.09	7.57	95	1.0
ESM13-011		0.056	0.08	0.73	0.15	17.95	85	0.6
ESM13-012		0.277	0.12	0.48	0.32	13.70	114	3.7
ESM13-013		0.255	0.11	0.59	0.33	12.70	107	3.0
ESM13-014		0.317	0.10	0.47	0.21	13.15	103	2.4
ESM13-015		0.223	0.08	0.65	0.16	11.30	94	0.9
ESM13-016		0.244	0.09	0.70	0.21	12.30	101	1.0
ESM13-017		0.258	0.08	0.71	0.15	8.38	88	1.5
ESM13-018		0.386	0.07	0.64	0.25	12.55	87	1.7
ESM13-019		0.308	0.06	0.55	0.26	10.45	81	1.5
ESM13-020		<0.005	0.27	10.55	0.29	7.59	104	<0.5
ESM13-021		<0.005	0.11	6.86	0.15	5.59	19	<0.5
ESM13-022		0.065	0.07	0.86	0.18	13.10	76	0.7
ESM13-023		0.382	0.18	0.33	0.15	13.55	114	2.0



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Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-TL43 Au ppm	ME-MS41 Ag ppm	ME-MS41 Au ppm	ME-MS41 As ppm	ME-MS41 Ba ppm	ME-MS41 Bi ppm	ME-MS41 Be ppm	ME-MS41 B ppm	ME-MS41 Ca %	ME-MS41 Cd ppm	ME-MS41 Ce ppm	ME-MS41 Co ppm	ME-MS41 Cr ppm
ESM13-024	0.60	0.001	0.04	<0.2	11.5	220	0.12	2.34	<10	8.93	0.08	95.2	51.7	399
ESM13-025	0.61	0.001	0.06	<0.2	10.7	320	0.09	1.90	<10	1.35	0.14	72.6	34.6	283
ESM13-026	0.54	0.002	0.07	<0.2	13.9	250	0.21	0.83	<10	1.06	0.37	45.4	24.4	156
ESM13-027	0.54	0.003	0.07	<0.2	5.4	200	1.31	0.61	<10	0.09	0.20	122.5	23.4	75
ESM13-028	0.47	0.001	0.14	<0.2	4.5	210	0.25	0.49	<10	0.14	0.34	21.9	6.1	35
ESM13-029	0.45	0.002	0.14	<0.2	9.6	320	0.21	0.44	<10	0.60	0.06	29.2	11.3	107
ESM13-030	0.38	0.002	0.05	<0.2	3.38	220	0.15	1.29	<10	0.93	0.13	48.4	38.1	293
ESM13-031	0.47	0.001	0.11	<0.2	12.2	220	0.22	0.59	<10	0.37	0.17	34.2	12.6	72
ESM13-032	0.53	0.001	0.11	<0.2	2.63	540	0.12	1.31	<10	1.25	0.25	51.6	37.0	431
ESM13-033	0.54	0.002	0.20	<0.2	30.2	220	0.27	0.78	<10	0.61	0.61	51.9	21.5	60
ESM13-034	0.51	0.003	0.22	<0.2	23.8	150	0.30	0.38	<10	0.07	0.27	27.1	8.9	18
ESM13-035	0.45	0.001	0.11	<0.2	9.3	130	0.23	0.25	<10	0.03	0.23	32.3	13.7	13
ESM13-036	0.53	0.001	0.06	<0.2	7.6	90	0.30	0.19	<10	0.04	0.14	33.0	7.7	14
ESM13-037	0.44	0.001	0.05	<0.2	5.8	60	0.29	0.25	<10	0.02	0.11	44.7	6.6	18
ESM13-038	0.50	0.009	0.11	<0.2	19.6	80	0.38	0.40	<10	0.13	0.16	29.3	10.4	23
ESM13-039	0.42	0.002	0.17	<0.2	13.6	60	0.32	0.16	<10	0.04	0.18	19.90	5.3	28
ESM13-040	0.53	0.001	0.10	<0.2	45.1	60	0.51	0.72	<10	0.05	0.10	15.30	26.2	29
ESM13-041	0.46	0.003	0.09	<0.2	127.0	250	0.14	0.44	<10	2.55	0.29	55.6	47.8	59
ESM13-042	0.58	0.006	0.15	<0.2	88.5	220	0.24	0.42	<10	0.98	0.27	64.7	53.0	95
ESM13-043	0.53	0.004	0.11	<0.2	67.7	220	0.17	0.63	<10	1.33	0.31	64.2	46.0	128
ESM13-044	0.65	0.005	0.18	<0.2	71.0	210	0.34	0.58	<10	0.68	0.23	49.0	35.9	85
ESM13-045	0.59	0.002	0.15	<0.2	45.8	340	0.34	0.66	<10	0.78	0.27	53.1	44.8	71
ESM13-046	0.67	0.002	0.09	<0.2	17.5	300	0.34	0.60	<10	0.35	0.24	66.4	33.2	82
ESM13-047	0.54	0.005	0.09	<0.2	11.9	320	0.09	1.35	<10	1.84	0.34	109.0	44.0	143
ESM13-048	0.43	0.002	0.19	<0.2	6.1	300	0.11	1.14	<10	1.26	0.39	98.0	32.6	167
ESM13-049	0.57	0.002	0.12	<0.2	20.4	350	0.10	2.08	<10	1.78	0.51	144.5	55.8	128
ESM13-050	0.53	0.002	0.09	<0.2	13.1	320	0.09	1.67	<10	1.49	1.22	62.8	40.8	291
ESM13-051	0.59	0.001	0.05	<0.2	5.4	550	0.10	1.17	<10	1.64	0.32	92.1	37.8	95
ESM13-052	0.37	0.001	0.07	<0.2	3.5	430	0.08	0.95	<10	0.87	0.12	52.8	31.1	153
ESM13-053	0.49	0.001	0.06	<0.2	2.5	450	0.06	1.52	<10	1.55	0.21	52.9	29.1	153
ESM13-054	0.36	0.001	0.06	<0.2	1.6	490	0.05	1.25	<10	1.70	0.13	70.9	34.1	131



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**CERTIFICATE OF ANALYSIS WH13135203**

Sample Description	Method Analyte Units LOR	ME-MS41 Cs ppm	ME-MS41 Cu ppm	ME-MS41 Fe %	ME-MS41 Ca ppm	ME-MS41 Ce ppm	ME-MS41 Hf ppm	ME-MS41 Hg ppm	ME-MS41 In ppm	ME-MS41 K %	ME-MS41 La ppm	ME-MS41 Li ppm	ME-MS41 Mg %	ME-MS41 Mn ppm	ME-MS41 Mo ppm	ME-MS41 Na %
ESM13-024		6.11	47.0	7.81	18.85	0.24	0.20	0.01	0.079	0.64	50.8	27.8	3.41	1500	0.92	0.01
ESM13-025		3.65	39.2	7.42	15.90	0.12	0.10	0.02	0.073	0.20	40.4	29.9	2.99	973	0.52	0.01
ESM13-026		3.65	39.9	4.95	8.01	0.07	0.07	0.07	0.046	0.25	23.6	21.3	1.36	866	1.25	0.01
ESM13-027		1.05	11.0	6.48	10.25	0.07	0.04	0.04	0.046	0.07	79.0	12.7	0.48	754	16.50	0.03
ESM13-028		2.13	48.7	2.81	6.09	<0.05	<0.02	0.05	0.023	0.19	12.1	14.2	0.81	255	6.75	0.01
ESM13-029		1.32	26.4	3.48	8.31	0.05	0.03	0.08	0.033	0.04	16.1	12.8	0.89	289	1.43	0.01
ESM13-030		2.30	37.9	5.96	11.60	0.09	0.09	0.05	0.057	0.06	24.1	26.7	2.79	1320	1.12	0.01
ESM13-031		1.31	23.7	3.56	6.80	<0.05	<0.02	0.06	0.038	0.05	17.5	16.4	0.75	427	1.09	0.01
ESM13-032		6.91	31.1	7.26	13.10	0.13	0.04	0.04	0.075	0.88	24.6	33.5	1.69	519	0.40	0.02
ESM13-033		0.88	39.8	4.22	5.55	0.07	0.03	0.07	0.047	0.06	26.1	17.1	1.09	1140	1.83	0.01
ESM13-034		0.84	37.3	3.29	3.83	<0.05	0.03	0.06	0.020	0.07	13.6	9.7	0.22	1240	2.36	0.01
ESM13-035		0.88	31.7	2.81	4.18	<0.05	<0.02	0.04	0.016	0.06	15.6	5.8	0.13	3020	2.93	0.01
ESM13-036		0.65	37.6	2.85	3.68	<0.05	<0.02	0.03	0.013	0.07	16.7	11.0	0.25	889	1.19	0.01
ESM13-037		1.13	27.8	3.34	5.32	<0.05	0.02	0.04	0.015	0.05	21.5	16.4	0.28	521	1.10	0.01
ESM13-038		1.25	112.5	3.16	4.71	<0.05	0.02	0.05	0.030	0.05	17.3	10.1	0.23	739	2.98	0.01
ESM13-039		1.02	95.1	3.12	5.80	<0.05	<0.02	0.05	0.019	0.04	12.0	13.1	0.29	476	2.26	0.01
ESM13-040		2.60	41.1	4.30	6.39	<0.05	0.03	0.04	0.025	0.04	6.8	44.6	0.55	1370	1.44	0.01
ESM13-041		0.41	75.2	7.28	4.18	0.09	0.04	0.07	0.062	0.03	33.0	25.8	0.50	1900	1.38	0.01
ESM13-042		1.36	88.5	6.90	6.44	0.10	0.08	0.06	0.058	0.04	34.5	25.0	1.27	1900	2.44	0.01
ESM13-043		0.90	77.1	6.23	8.77	0.11	0.07	0.05	0.059	0.05	36.4	38.3	1.68	1860	1.42	<0.01
ESM13-044		1.10	69.3	5.08	6.59	0.08	0.07	0.05	0.042	0.06	30.8	32.5	1.13	1280	1.28	<0.01
ESM13-045		1.05	65.9	4.84	6.27	0.06	0.08	0.07	0.040	0.07	29.5	27.6	0.93	1440	1.28	<0.01
ESM13-046		0.95	45.6	4.64	6.62	0.07	0.04	0.04	0.034	0.07	32.0	21.3	0.85	925	1.88	<0.01
ESM13-047		2.75	63.6	6.98	14.15	0.21	0.09	0.05	0.058	0.34	60.7	36.5	2.83	1340	1.97	<0.01
ESM13-048		1.85	44.0	6.60	14.85	0.20	0.10	0.06	0.069	0.26	62.8	31.5	2.52	2440	1.56	<0.01
ESM13-049		1.38	70.5	5.72	13.80	0.21	0.05	0.09	0.098	0.20	90.3	29.2	2.11	2770	0.89	<0.01
ESM13-050		3.76	53.1	6.67	12.15	0.15	0.07	0.03	0.070	0.26	31.7	35.6	3.27	1140	0.71	<0.01
ESM13-051		0.66	36.3	5.03	9.20	0.08	0.04	0.03	0.058	0.13	44.1	22.5	1.58	1300	0.64	<0.01
ESM13-052		1.35	47.5	6.46	12.70	0.10	0.06	0.06	0.062	0.17	22.3	31.7	2.57	734	0.99	<0.01
ESM13-053		1.69	48.0	5.55	11.70	0.18	0.13	0.09	0.065	0.28	28.8	29.6	3.15	1110	0.63	<0.01
ESM13-054		1.28	52.4	5.92	12.50	0.19	0.04	0.06	0.080	0.36	39.0	31.6	2.73	1320	0.60	<0.01



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Method Analyte Units LOR	ME-MS41 Nb ppm	ME-MS41 Ni ppm	ME-MS41 P ppm	ME-MS41 Pb ppm	ME-MS41 Rb ppm	ME-MS41 Re ppm	ME-MS41 S %	ME-MS41 Sb ppm	ME-MS41 Sc ppm	ME-MS41 Se ppm	ME-MS41 Sn ppm	ME-MS41 Sr ppm	ME-MS41 Ta ppm	ME-MS41 Te ppm	ME-MS41 Th ppm	
ESM13-024	1.46	200	3210	3.0	54.4	<0.001	<0.01	0.60	14.0	0.5	0.4	484	<0.01	<0.01	0.01	8.5
ESM13-025	5.11	107.5	2210	8.6	21.8	<0.001	0.02	0.59	14.8	0.8	0.7	91.8	0.01	0.01	0.01	4.4
ESM13-026	1.79	78.4	1800	18.4	32.3	<0.001	0.02	0.98	11.1	0.7	0.3	39.2	<0.01	<0.01	0.03	3.7
ESM13-027	0.83	60.4	1600	23.1	11.0	<0.001	0.15	2.42	3.9	0.8	0.4	293	<0.01	0.13	0.13	3.8
ESM13-028	0.47	25.2	860	27.2	20.0	<0.001	0.10	1.06	1.3	1.3	0.4	35.4	<0.01	<0.01	0.05	0.2
ESM13-029	4.95	46.2	1130	12.8	7.6	<0.001	0.07	0.72	2.1	0.9	0.7	41.5	0.01	0.01	0.03	0.2
ESM13-030	8.03	144.0	1460	18.1	9.4	<0.001	0.07	0.76	10.8	0.9	0.7	41.6	0.01	0.01	0.01	1.7
ESM13-031	2.00	41.9	870	14.7	8.7	<0.001	0.03	0.65	4.0	0.6	0.5	21.4	<0.01	<0.01	0.04	1.0
ESM13-032	6.81	168.5	2720	13.8	88.9	<0.001	0.02	0.41	27.2	0.9	1.2	78.7	0.01	0.02	0.02	3.6
ESM13-033	1.45	56.4	1180	23.7	8.4	<0.001	0.04	1.45	6.1	1.2	0.3	24.6	<0.01	<0.01	0.04	2.5
ESM13-034	0.17	17.6	1900	17.4	9.3	<0.001	0.11	1.33	0.3	0.7	0.2	21.5	<0.01	<0.01	0.08	0.3
ESM13-035	0.13	14.6	1340	19.6	11.5	<0.001	0.08	0.80	0.3	0.7	0.2	7.5	<0.01	<0.01	0.12	0.3
ESM13-036	0.18	17.5	1060	12.7	7.7	<0.001	0.06	0.65	0.3	0.4	<0.2	9.9	<0.01	<0.01	0.14	0.5
ESM13-037	0.25	15.6	1110	11.3	11.0	<0.001	0.05	0.47	0.5	0.6	0.2	6.0	<0.01	<0.01	0.10	0.9
ESM13-038	0.08	28.8	2390	20.8	9.8	<0.001	0.06	1.33	0.3	1.7	0.4	27.5	<0.01	<0.01	0.27	0.2
ESM13-039	0.16	18.4	1350	20.7	7.2	<0.001	0.07	1.10	0.3	1.6	0.4	15.9	<0.01	<0.01	0.11	<0.2
ESM13-040	0.33	31.6	1100	48.6	5.4	<0.001	0.06	1.35	1.4	0.4	0.2	5.4	0.01	0.01	0.04	2.4
ESM13-041	0.15	133.0	3140	17.7	2.3	<0.001	0.15	2.19	6.8	1.5	<0.2	112.5	<0.01	<0.01	0.03	0.5
ESM13-042	0.84	139.0	2820	26.3	3.4	<0.001	0.04	3.60	9.4	1.4	0.2	84.2	<0.01	<0.01	0.03	3.1
ESM13-043	1.09	111.5	2470	18.5	3.9	<0.001	0.05	1.71	10.2	0.9	<0.2	99.8	<0.01	<0.01	0.03	2.3
ESM13-044	0.42	76.7	1410	39.3	5.1	<0.001	0.04	1.52	6.9	0.8	0.2	50.3	<0.01	<0.01	0.05	2.4
ESM13-045	0.51	72.4	1470	65.6	7.8	<0.001	0.05	1.44	6.1	0.7	<0.2	56.3	<0.01	<0.01	0.05	2.3
ESM13-046	0.91	85.2	1860	26.8	8.8	<0.001	0.06	1.53	3.4	1.3	0.2	56.0	<0.01	<0.01	0.04	2.0
ESM13-047	2.92	89.2	3660	11.8	33.0	<0.001	0.04	1.55	10.9	1.3	0.4	160.0	<0.01	<0.01	0.02	4.3
ESM13-048	2.11	92.2	3900	13.7	24.3	<0.001	0.02	0.84	14.6	1.0	0.2	154.5	<0.01	<0.01	0.02	5.1
ESM13-049	4.26	107.5	2650	17.7	14.6	<0.001	0.07	1.34	9.9	1.1	0.3	171.0	0.01	0.02	0.02	2.0
ESM13-050	4.23	139.0	2730	88.1	23.7	<0.001	0.01	2.04	16.0	0.7	0.5	96.0	<0.01	<0.01	0.01	2.8
ESM13-051	0.72	81.0	3580	10.3	10.6	<0.001	0.05	0.37	7.7	0.9	0.3	129.0	<0.01	<0.01	0.02	1.6
ESM13-052	10.25	64.3	1860	7.0	18.3	<0.001	0.06	0.33	10.2	0.4	0.6	74.7	0.01	0.02	0.01	1.5
ESM13-053	9.00	70.8	2900	10.9	22.4	<0.001	0.07	0.35	10.0	0.6	0.4	146.5	0.01	0.01	0.01	1.6
ESM13-054	7.40	61.4	2950	5.2	25.3	<0.001	0.06	0.22	11.3	0.8	0.4	157.5	0.01	0.02	0.02	1.6





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Sample Description	Method Analyte Units LOR	ME-MS41 Ti %	ME-MS41 Ti ppm	ME-MS41 U ppm	ME-MS41 V ppm	ME-MS41 W ppm	ME-MS41 Y ppm	ME-MS41 Zn ppm	ME-MS41 Zr ppm
ESM13-024		0.376	0.37	0.45	228	0.25	11.45	182	7.5
ESM13-025		0.467	0.20	0.54	203	0.30	12.85	123	4.1
ESM13-026		0.161	0.24	1.07	122	0.18	13.25	103	3.0
ESM13-027		0.023	0.12	0.98	88	0.12	7.33	83	1.7
ESM13-028		0.036	0.22	1.80	81	0.11	6.68	100	<0.5
ESM13-029		0.189	0.19	0.84	97	0.21	5.65	48	1.2
ESM13-030		0.441	0.24	0.65	157	0.21	11.70	111	2.9
ESM13-031		0.090	0.14	0.73	76	0.21	7.67	63	<0.5
ESM13-032		0.368	0.28	0.48	173	0.12	14.10	94	1.7
ESM13-033		0.057	0.12	0.91	62	0.15	15.70	99	0.8
ESM13-034		0.007	0.08	1.53	27	0.09	3.24	56	0.5
ESM13-035		0.008	0.12	0.90	24	0.08	1.90	55	<0.5
ESM13-036		0.010	0.05	0.73	19	0.05	1.63	55	<0.5
ESM13-037		0.009	0.09	0.73	24	0.06	1.86	46	0.5
ESM13-038		0.008	0.11	2.86	45	0.11	7.29	96	0.5
ESM13-039		0.012	0.11	1.24	58	0.12	3.23	61	<0.5
ESM13-040		0.011	0.06	1.33	28	0.09	5.40	74	0.8
ESM13-041		0.007	0.02	0.64	44	0.05	23.6	100	1.6
ESM13-042		0.030	0.04	0.75	68	0.19	18.05	112	3.3
ESM13-043		0.036	0.04	0.63	94	0.10	16.80	104	2.3
ESM13-044		0.020	0.04	0.86	58	0.10	15.60	89	2.2
ESM13-045		0.017	0.07	0.75	49	0.10	15.20	91	2.2
ESM13-046		0.021	0.06	1.10	56	0.17	18.15	88	1.2
ESM13-047		0.167	0.15	0.78	149	0.11	20.9	122	4.8
ESM13-048		0.164	0.16	0.90	163	0.09	25.5	139	5.9
ESM13-049		0.122	0.09	0.54	170	0.12	25.6	116	2.5
ESM13-050		0.290	0.14	0.47	177	0.12	16.30	254	2.6
ESM13-051		0.040	0.06	0.59	104	0.07	23.2	107	1.1
ESM13-052		0.417	0.06	0.34	201	0.15	7.81	81	2.1
ESM13-053		0.275	0.08	0.31	171	0.15	11.65	90	1.9
ESM13-054		0.266	0.06	0.27	171	0.08	14.75	91	1.2



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**CERTIFICATE COMMENTS**

**ANALYTICAL COMMENTS**

Interference: Samples with Ca > 10% on ICP- MS As. ICP- AES As results reported (2 ppm DL)  
ME- MS41

Gold determinations by this method are semi- quantitative due to the small sample weight used (0.5g).  
ME- MS41

**LABORATORY ADDRESSES**

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.  
LOG- 22 SCR- 41 WEI- 21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.  
Au- TL43 ME- MS41