2008 Report on Exploration Activities
Stream Sediment Sampling and Geochemistry
Munro Lake Property
(Tenure Nos. 516864, 516873, 517419, 517412, 517406, 516909, 516821, 517420, 517401)

Similkameen and Osoyoos Mining Divisions, British Columbia
NTS: 82E/12, 82E/13, 92H/9, 92H/16
Latitude 49°44'0" N, Longitude 119°58'18" W
UTM Zone 11: 710950m E, 5510500m N (NAD 83)

October 24, 2008

(BC 2008 Assessment)

by

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1.0 Introduction

This report describes the results of geochemical stream sediment sampling conducted during 2008 on the Munro claims to substantiate the related expenditures applied toward assessment credits.

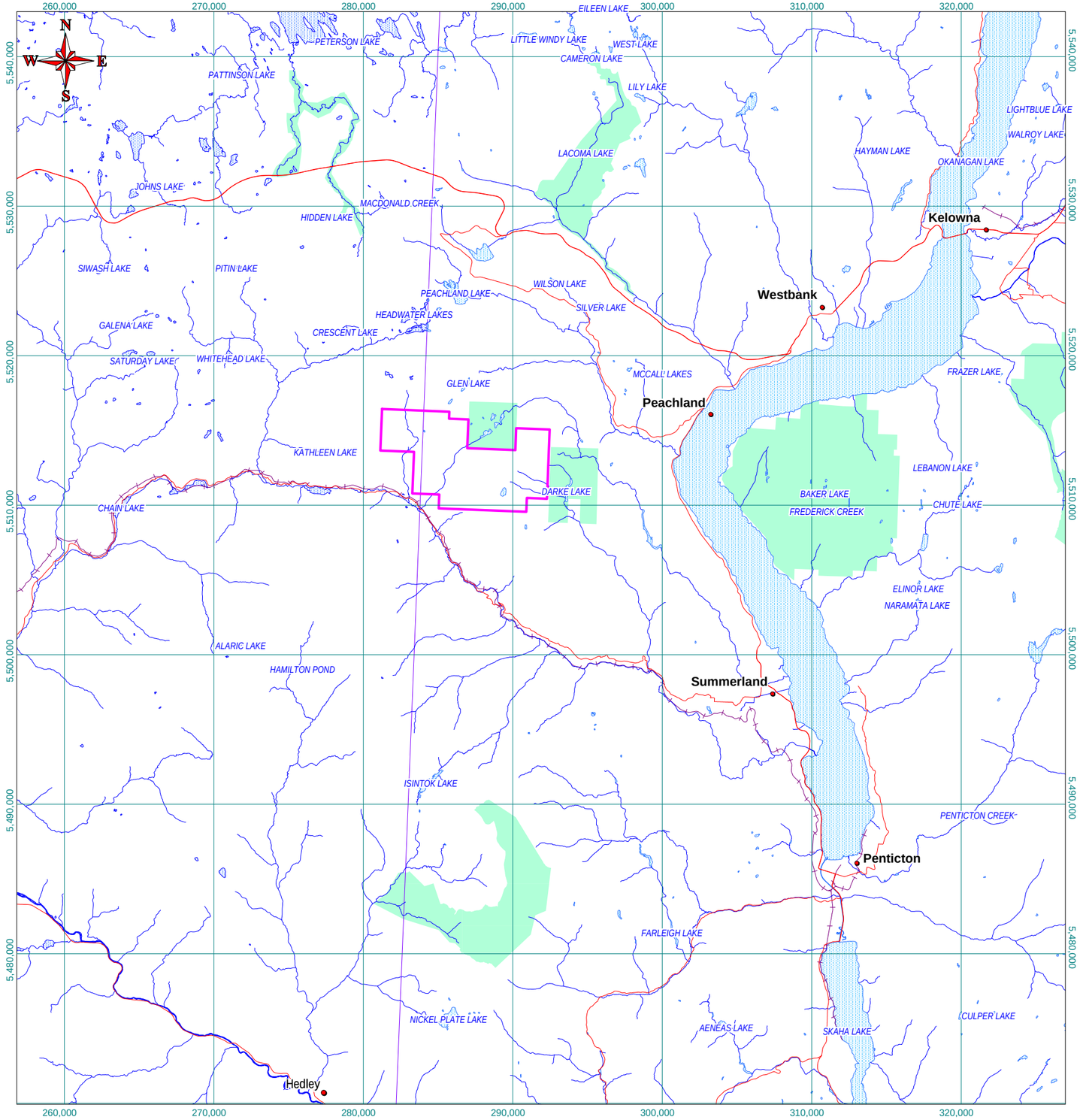
The Munro Lake claims cover an area previously explored for batholith hosted porphyry type copper-molybdenum mineralization as well as vein associated gold-silver mineralization. In 1996 and 1997 Almaden completed 12 diamond drill holes on the property. These holes were designed to test a 4 kilometer long high chargeability feature interpreted to represent sulphides emplaced within equigranular to porphyritic intrusive rocks. Most of these holes intersected anomalous copper, molybdenum and silver values, the most important of include a 14.8 meter interval in hole 96-3 that averaged 0.10% Molybdenum (Mo), 0.05% copper and 15.1 g/t silver within a broader interval of 231.9 m (the entire hole) which averaged 0.047 % copper, 0.020% Mo and 5.54 g/t silver.

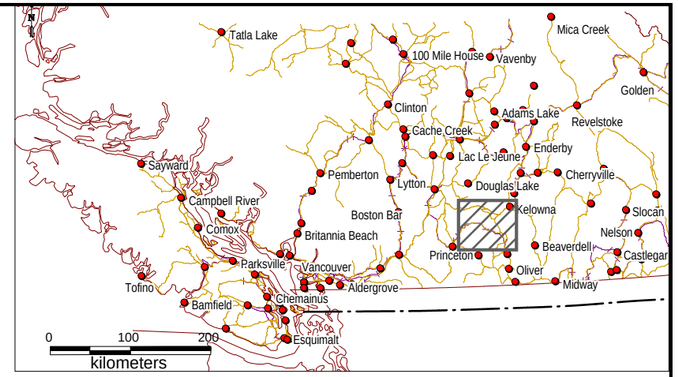
The 2008 stream sediment sampling program was designed to define areas of greater metal concentration within the geophysical anomaly for future diamond drill testing. Stream sediment sampling was deemed the best geochemical methodology as the overburden cover precludes conventional soil samples serving the same purpose. In June and July 2008 Rio Minerals was contracted to carry out the stream sediment survey.

1.1 Location and Access

The Munro Lake property is located in the Southern Okanagan region of British Columbia about 40 kilometers north-northwest of Penticton and 18 kilometers westsouthwest of Peachland on the west side of Okanagan Lake (Figure 1). The NTS location is 82E/12, 82E/13, 92H/9 and 92H/16, and the centre of the property is at latitude 49°44’0” N longitude 119°58’18” W.

Access to the property can be gained by way of Peachland or Summerland. The best access is via Highway 97 to Peachland and then southwest on the Brenda Mine Road for 11 km to Headwaters Road. The Headwaters Road leads west for about 8.5 km to Kathleen Main Road which leads southwest for 7.5 km to Deer Creek Road. The property is located 16 km along this road and can be reached by following the Deer Creek Road to the 32.5 km marker. At this point the main haul road leads left for 4 km into the property. Total distance from Peachland is about 36 km.





LEGEND

- Property Outline
- City/Town
- Road
- River
- Rail
- Lake
- Protected Areas

ALMADEN MINERALS LTD.

	Munro Lake Project, BC Canada Location Map Figure 1
Date:24/10/2008	
Author:	
Office:	
Drawing:	
Scale: 1:150000	Projection: UTM Zone 11 (NAD 27)

0 2.5 5 10

kilometres

An alternate route is via Summerland along the old Summerland to Princeton Highway, westerly along the Trout Creek Valley for a distance of about 27 km. to the junction of the Munro Lake Road. The junction is about 300m west of a bridge that crosses Trout Creek. The Munro Lake Road leads northerly along O'Hagen Creek for a distance of 10.9 km. At a point near the power line, just past Km 33 marker, the main haul road can be accessed by turning right onto an access road for 4 km to Km 37 post, which is located on the south central part of the property.

1.2 Description of Claims

The property consists of nine contiguous claims with an aggregate land area of 5102.40 hectares. The locations of the claims are shown in Figure 2 and the respective claim data are listed in Table 1. All of the claims are owned by Almaden Minerals Ltd.

Table 1. Claim Particulars

Tenure #	Claim Name	Area in Ha	Expiry Date
516864	NoNameConv	667.93	2009/dec/15
516873	NoNameConv	1148.40	2009/dec/15
517419	NoNameConv	180.06	2009/dec/15
517412	ML 4	17.63	2010/jul/12
517406	NoNameConv	1020.53	2009/dec/15
516909	NoNameConv	693.97	2009/dec/15
516821	NoNameConv	1311.21	2009/dec/15
517420	NoNameConv	41.79	2009/dec/15
517401	ML 3	20.88	2010/jul/12

1.3 Previous Work

The first documented exploration work on the claim group was carried out in 1966 after the discovery of the Brenda molybdenum-copper mine located about 17 km to the north. A detailed review and summary of previous work is found in a report by J.H. Montgomery and G.H. Giroux, Montgomery Consultants, Jan.1996 (in Poliquin and King, 1996). Low grade copper-molybdenum mineralization was first discovered by Lakeland Base Metals Ltd. in 1966. An initial program of soil sampling, trenching and 2000 feet of percussion drilling by BrenMac Mines Ltd., Brenda Mines Ltd., and Lakeland Base Metals was completed in 1966. During 1966 and 1967, exploration was carried out by Koporok Mines Ltd. on the Cache showing located on the eastern

712,000 713,000 714,000 715,000 716,000 717,000 718,000 719,000 720,000 721,000 722,000 723,000 724,000 725,000 726,000 727,000

5,518,000 5,517,000 5,516,000 5,515,000 5,514,000 5,513,000 5,512,000 5,511,000 5,510,000 5,509,000 5,508,000

N W E S

Dillard Creek

516864

517419

517401

517412

516873

516909

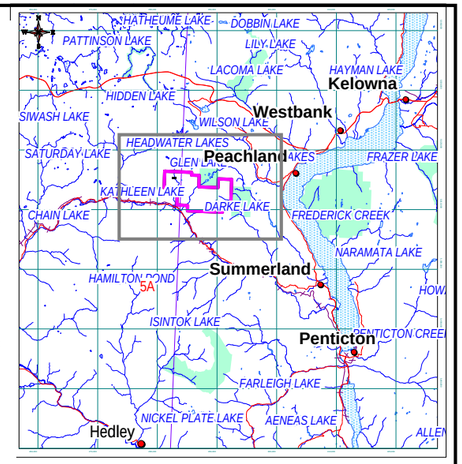
516812

517406

TSUH LAKE

DARKE LAKE

MUNRO LAKE



LEGEND

- Property Outline
- 517412 — Active Claim
- City/Town
- Rail
- Road
- River

ALMADEN MINERALS LTD.

	Munro Lake Project, BC Claim Map Figure 2
Date:15/10/2008	
Author:	
Office: AMM	
Drawing:	
Scale: 1:50000	Projection: UTM Zone 11 (NAD 27)

0 0.5 1 2

kilometres

portion of the claim group and on several other quartz veins with pyrite, tetrahedrite and galena.

In 1973, the area underlain by the claims was restaked by Canadian Occidental Petroleum Ltd. based on results of a regional stream sediment survey and in 1974 they carried out geochemical, geological and magnetic surveys. Several copper-molybdenum anomalies were identified and 3 targets tested by diamond drill holes.

In 1976 a regional geochemical program funded by the Federal and Provincial Governments identified anomalous silver values in streams draining the plateau area northwest of Munro Lake. Based on this new information, Canadian Occidental reanalyzed all soil samples and drill core for silver and found excellent correlation between silver anomalies and previously identified copper-molybdenum-zinc anomalies. The highest values obtained were 2.73 oz Ag/ton and 0.003 oz Au/ton over 2.3 feet from 124 to 136.3 feet in drill hole MUN 74-3.

In 1977 a large co-incident Cu-Mo-Zn-Ag anomaly was tested by a 562 ft. diamond drill hole (MUN 77-1) and in 1981 a total of 1300 feet of trenching was carried out to test a large silver-base metal anomaly.

In 1983 the claims lapsed and the claims were staked by Almaden Resources Corp. during 1985 to 1987 Almaden conducted VLF-EM surveys followed by 15 line km of I.P. over the central and northeastern parts of the property. The area of co-incident VLF and Ag-Cu-Zn-Mo soil anomalies was then tested with a program of overburden drilling. In Sept. and Oct. 1987, a program of reverse circulation drilling was carried out to test geochemical and geophysical targets to the north of Munro Lake. This program was continued in 1988 to test a NE trending structure. The drilling outlined a series of NE trending co-incident gold, silver and zinc anomalies in basal till.

In 1994 and 1995, an induced polarization survey was conducted over the claim area by Delta Geoscience Ltd. (Hendrickson 1995). A large I. P. anomaly with a magnitude of 15 to 20 msec above background was delineated on the northwestern part of the survey grid. The anomaly extended in an east-west direction over a distance of 2200 m with an average width of about 500 m and was open to the west. Hendrickson interpreted the anomaly as representing a large pyritic alteration zone reflecting the top of a large mineralized porphyry system.

In order to further delineate this anomaly the grid was extended westward for a further 1800 meters and further I.P. work completed in August 1996. This work showed that the large I.P. anomaly continued to the west and now has a length of at least 4000m and is up to 800m in width (Figure 4). Chargeability values of up to 24 msec suggest the presence of a large disseminated sulphide system.

A diamond drilling program totaling 1780 m in seven holes was carried out during July and August, 1996. The objective of the drill program was to test several induced polarization and chargeability targets. All seven diamond drill holes intersected a weakly mineralized silver-molybdenum-copper porphyry system. The best mineralization was intersected in hole M-96-3, where the entire 231.9 m of core averaged 0.047 % copper, 0.020% Mo and 5.54 g/t silver.

A diamond drilling program totaling 2042 m in five holes was carried out during September and October, 1997 to test the western portion of the chargeability anomaly. Copper-molybdenum-silver mineralization was intersected in the two eastern-most holes, but the values were not of economic interest. The 1996 and 1997 drilling programs partially defined a large, low-grade porphyry silver-copper-molybdenum system that extends in an east-west direction over a distance of at least 2.5 km.

2.0 Exploration Program

The 2008 exploration program consisted of stream sediment sampling in the central and eastern parts of the property, as well as watersheds to the north. One hundred and thirty sediment samples were collected and submitted to ALS Chemex Labs for aqua regia digestion followed by multi-element ICPMS analysis (ME-MS41) and digestion super trace gold analysis (Au-ST44). Stream sediment samples were field sieved to -20 mesh prior to bagging and shipping to ALS Chemex Labs where the samples were sieved to -150 mesh prior to analysis.

3.0 Geologic Setting

3.1 Regional Geology

The regional bedrock geology is shown in Figure 3 (simplified from Tempelman-Kluit, 1989). The property is underlain by an intrusive mass of the Valhalla Plutonic Group of possible Upper Cretaceous Age (or possibly Jurassic). This intrusive mass has been described as a "constriction zone" between two Jurassic Nelson Complex Batholiths; the Penask Batholith to the north and the Okanagan Batholith to the south. The Valhalla rocks are granodiorites to quartz monzonites in composition.

3.2 Property Geology

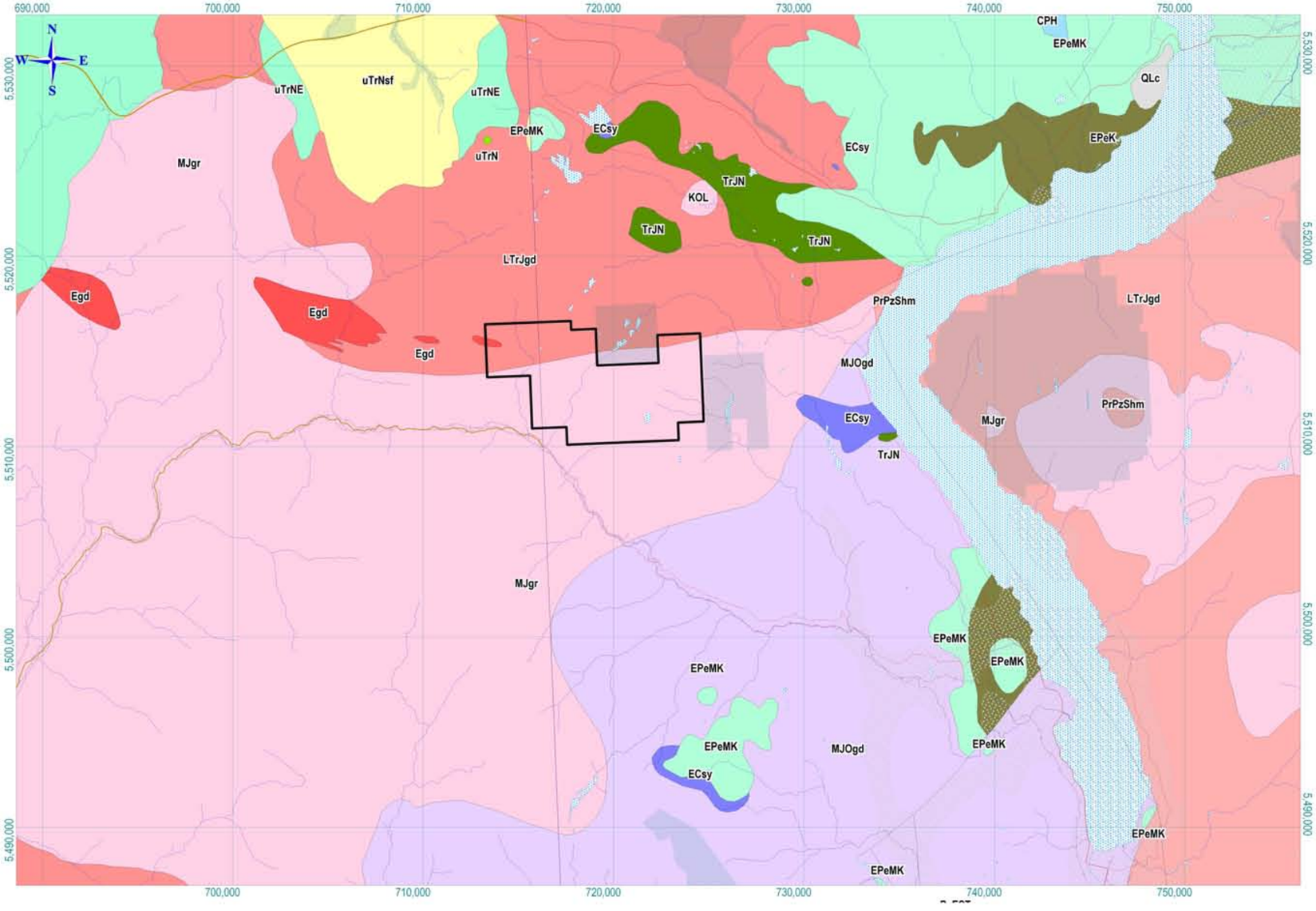
The dominant rock type on the property is a medium-grained, relatively massive granodiorite. Locally, the granodiorite has a porphyritic texture due to the presence of very coarse-grained potash feldspar crystals which are inconspicuous except when the cleavage faces of the large crystals reflect sunlight. The granodiorite is cut by quartz feldspar porphyry dikes that trend east-northeast. Locally narrow aplite veins and dikes cut the granodiorite. Quaternary Glaciofluvial and glacial deposits are irregularly distributed however large portions of the property are covered with thick overburden.

3.3 Alteration

The country rock granodiorite is pervasively altered and unaltered rock was not observed on the Munro Lake property. Igneous textures are preserved in the granodiorites and quartz-feldspar porphyry dikes. The country rock granodiorite is composed of igneous quartz (20-25 %), K-feldspar, plagioclase and biotite. The granodionte country rocks are commonly sheared and intense texturally destructive alteration is structurally controlled. Hydrothermal minerals are dominantly veinlet controlled in their distribution, however both pervasive and selectively pervasive alteration were observed.

3.3 Mineralogy

Quartz The host rock granodiorites are composed of approximately 25% igneous quartz. Hydrothermal quartz dominantly occurs in veins and veinlets. Three episodes of quartz veining



LEGEND

QUATERNARY

QLc - Thick drift: alluvium, glaciofluvial and lacustrine deposits, till, coluvium

TERTIARY

EOCENE

ECsy - Coriell plutonic suite; syenite to monzonite intrusive rocks

EPeMK - Penticton Group; undivided volcanic rocks

EPeK - Penticton Group - Kettle River and Springbrook Formations mudstone, siltstone,shale fine clastic sedimentary rocks

Egd - Hornblende granodiorite, massive, resistant, coarse grained, equigranular with euhedral fresh black hornblende crystals

MESOZOIC

LTrJgd - Unnamed granodioritic intrusive rocks

MJgr - Unnamed granite, alkali feldspar granite intrusive rocks

TrJN - Limestone, slate, siltstone, argillite

KOL - Okanagan Batholith - Ladybird and Valhalla intrusions intrusive rocks, undivided

uTrNsf - Nicola Group mudstone, siltstone, shale fine clastic sedimentary rocks

MJOgd - Okanagan Batholith granodioritic intrusive rocks

uTrNE - Nicola Group - Eastern Volcanic Facies basaltic volcanic rocks

PrPzShm - Proterozoic to Paleozoic - Shuswap Assemblage metamorphic rocks, undivided

Claims Outline

Protected Areas

Lake

Rail

River

Road

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	MUNRO LAKE PROJECT BC, CANADA GEOLOGY MAP Figure 3
Date:19/9/2008	
Author:	
Office: AMM	
Drawing:	
Scale: 1:250000	Projection: UTM ZONE 11 (NAD 83)

0 5 10
kilometres

have been recognized. Early quartz-K-feldspar-moybdenite veins are crosscut by quartz dominant-minor K-feldspar-pyrite-chalcopyrite +/- sphalerite veins. Both these vein types are crosscut by late milky quartz-pyrite veins. Petrographic studies indicate that quartz occurs as large anhedral grains with undulatory extinction.

K-feldspar Igneous K-feldspar occurs in amounts up to 10% in the granodiorite. Hydrothermal K-feldspar occurs as an open space mineral in quartz veins and as a veinlet controlled replacement mineral. Early salmon-coloured K-feldspar-quartz-molybdenum veins are cross cut by quartz-dominant-minor K-feldspar veins with chalcopyrite-pyrite and minor sphalerite. K-feldspar replaces the groundmass and plagioclase adjacent to quartz-K-feldspar veins.

Biotite Biotite occurs as a replacement mineral. Biotite pervasively selectively replaces hornblende in mafic volcanics and replaces igneous biotite adjacent to quartz-K-feldspar-molybdenite veins. Biotite is associated with replacement K-feldspar and anhydrite.

Anhydrite Anhydrite was identified petrographically by Thompson (1996; in Poliquin and King, 1996) and occurs in association with hydrothermal muscovite, biotite, quartz and K-feldspar in the selvages to quartz-K-feldspar veins and in the veins themselves. Chalcopyrite and pyrite also occur associated with anhydrite.

K-mica Two phases of K-mica alteration were identified petrographically (Thompson 1996; in Poliquin and King, 1996). Early muscovite is associated with K-feldspar-biotite and anhydrite while late "sericite" is associated with chlorite. Early muscovite is described as K-feldspar stable potassic alteration along the selvages of quartz-K-feldspar veins in veinlets and replacing plagioclase phenocrysts, generally associated with biotite and anhydrite. Late sericite replaces K-feldspar and plagioclase in association with chlorite and overprints the early muscovite-biotite-K-feldspar alteration.

Calcite Calcite was identified in hand specimen using HCL and petrographically. Calcite is distributed throughout the area investigated with diamond drilling. Calcite replaces plagioclase, occurs as fine grained masses in the groundmass and forms veinlets. Calcite is associated with sericite and chlorite.

Pyrite Pyrite is the most common sulfide and occurs in amounts up to 5 volume % in veins and disseminated in the wall rocks adjacent to veins. Pyrite occurs in association with chalcopyrite, sphalerite and more rarely molybdenite.

Chalcopyrite Chalcopyrite occurs in quartz veins and disseminated in the wallrock adjacent to quartz veins in association with K-mica, anhydrite, pyrite and sphalerite. Molybdenite Molybdenite occurs exclusively in quartz-K-feldspar veins as bands and "smears" commonly along the selvages of the veins.

3.4 Alteration Assemblages

Two distinct alteration assemblages were identified from logging diamond drill core and limited petrography. As assemblage of K-feldspar-biotite-muscovite-anhydrite-molybdenite (type I) is associated with quartz-K-feldspar-molybdenite veining and occurs dominantly in the selvages of these veins. Subsequent, overprinting sericite +/- chlorite (type II) alteration is pervasive and is controlled to a lesser extent by veining. Quartz-minor K-feldspar-chalcopyrite +/- sphalerite veining are associated with sericite-chlorite alteration.

The distribution of type I alteration is controlled by the density of quartz-K-feldspar-molybdenite veining. From the limited diamond drill data the most intense quartz-K-feldspar-molybdenite veining (>2 veins/metre) correlates well with the high chargeability anomaly. Type I alteration occurs along the entire studied length of the chargeability high and gives way to pervasive, overprinting type II alteration, to the north and south, away from the chargeability high. This initial work indicates that the linear chargeability anomaly roughly outlines the extent of type I alteration and suggests that structural control may be important. Concentric zoning common in some porphyry copper deposits is not observed, however spatial zoning of alteration assemblages does occur along the flanks of the linear chargeability anomaly as type I alteration is superseded by type II alteration away from the anomaly.

3.5 Mineralization

Two types of mineralization have been recognized on the Munro Lake property. Weak, porphyry-type pyrite-chalcopyrite-molybdenite mineralization is exposed in several trenches in the north-central part of the property where overburden cover is thinnest. The exposed mineralization is located on the south margin of a large I.P. chargeability anomaly, the target of the 1996 and 1997 drill programs.

A second type of mineralization occurs as quartz veining in silicified shear zones. Sampling of a showing on the Rose 2 claim (now included in claim 516821) in 1988 returned values of .132 oz/ton gold and 23.77 oz/ton silver over the 0.15 cm width of the vein (Poliquin and King, 1996).

4.0 Geochemistry

4.1 Stream Sediment Sampling

Geochemical sampling of the Munro property in 2008 consisted of stream sediment sampling throughout the property, as well as adjacent watersheds. One hundred and thirty sediment samples were collected and submitted to ALS Chemex Labs for aqua regia digestion followed by multi-element ICPMS analysis (ME-MS41) and digestion super trace gold analysis (Au-ST44) on a 50g nominal sample weight. Samples exceeding 0.1ppm Au were also analyzed using the ore-grade gold ICPMS analysis of the aqua regia extraction (Au-OG44).

4.2 Sampling and Analytical Procedures

Sample locations were marked in the field with pink flagging and UTM coordinates (NAD83) determined using a handheld GPS instrument. Stream sediment samples with minimal organic matter (approximately 0.5kg) were collected from the finest silt/sand material available in each active channel. Samples were field sieved to -20 mesh, placed in labeled 10cm x 15cm kraft paper bags and shipped to ALS Chemex laboratory in North Vancouver by Greyhound Bus courier.

Sample preparation at the laboratory involved drying at 60°C and sieving of up to 100 grams of each sample to -150 mesh. A 50 gram split was then cut, digested in aqua regia and analyzed by ICPMS (multi-element analysis ME-MS41 and trace gold analysis Au-ST44). Two samples exceeded 0.1ppm Au and were subsequently re-analyzed using the ore-grade gold ICPMS method (Au-OG44).

4.3 Stream Sediments Results

Stream sediment sampling locations for the 2008 program are shown in Figure 4; descriptions of sediments and sample locations presented in Appendix I. Anomalous values in copper, silver, molybdenum, silver and zinc were found in several samples (Appendix II), with strong correlations noted between copper, silver, molybdenum, zinc and indium (Table 2). Analytical results for each sample location are plotted for copper (Figure 5), silver (Figure 6) and molybdenum (Figure 7) which also illustrates the results by percentile breaks.

	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
Au	1.00																																																		
Ag	-0.09	1.00																																																	
Al	-0.12	0.70	1.00																																															
As	0.12	0.57	0.44	1.00																																													
B	0	0	0	0	1.00																																													
Ba	-0.12	0.70	0.74	0.48	0	1.00																																												
Be	-0.14	0.47	0.88	0.28	0	0.59	1.00																																											
Bi	-0.03	0.41	0.31	0.15	0	0.27	0.32	1.00																																										
Ca	-0.06	0.01	-0.02	-0.06	0	0.04	-0.03	-0.05	1.00																																										
Cd	-0.07	0.73	0.47	0.44	0	0.60	0.33	0.60	0.06	1.00																																								
Ce	-0.07	0.19	0.63	0.19	0	0.37	0.84	0.32	-0.06	0.12	1.00																																							
Co	0.09	0.43	0.45	0.70	0	0.57	0.37	0.29	-0.02	0.40	0.40	1.00																																						
Cr	0.15	0.10	0.19	0.54	0	-0.05	0.20	0.03	-0.04	0.01	0.29	0.43	1.00																																					
Cs	-0.09	0.65	0.70	0.59	0	0.52	0.55	0.14	0.01	0.49	0.20	0.36	0.15	1.00																																				
Cu	-0.08	0.70	0.65	0.39	0	0.54	0.61	0.62	0.06	0.75	0.36	0.48	0.19	0.48	1.00																																				
Fe	0.19	0.41	0.50	0.69	0	0.48	0.44	0.28	-0.13	0.27	0.52	0.83	0.55	0.37	0.39	1.00																																				
Ga	-0.10	0.61	0.97	0.45	0	0.67	0.92	0.30	-0.06	0.37	0.75	0.49	0.30	0.65	0.60	0.59	1.00																																			
Ge	0.00	0.22	0.55	0.36	0	0.30	0.73	0.30	-0.05	0.13	0.83	0.52	0.50	0.29	0.45	0.63	0.68	1.00																																			
Hf	-0.11	0.38	0.79	0.14	0	0.50	0.78	0.13	0.03	0.16	0.59	0.25	0.17	0.39	0.52	0.28	0.78	0.48	1.00																																			
Hg	-0.10	0.67	0.67	0.39	0	0.72	0.62	0.32	0.10	0.63	0.39	0.40	0.01	0.52	0.63	0.32	0.59	0.41	0.49	1.00																																		
In	-0.04	0.63	0.44	0.21	0	0.41	0.36	0.75	-0.02	0.86	0.20	0.25	-0.02	0.32	0.77	0.22	0.37	0.16	0.17	0.49	1.00																																		
K	0.04	0.22	0.57	0.30	0	0.29	0.49	-0.01	0.02	0.07	0.37	0.36	0.23	0.51	0.28	0.41	0.63	0.45	0.44	0.21	0.01	1.00																																	
La	-0.07	0.18	0.65	0.11	0	0.33	0.86	0.22	-0.02	0.07	0.86	0.29	0.24	0.30	0.44	0.39	0.75	0.85	0.71	0.43	0.13	0.55	1.00																																	
Li	-0.12	0.51	0.88	0.33	0	0.50	0.77	0.10	-0.02	0.20	0.55	0.28	0.22	0.70	0.43	0.38	0.87	0.49	0.74	0.45	0.18	0.62	0.61	1.00																																	
Mg	0.02	0.29	0.41	0.64	0	0.16	0.29	-0.02	-0.01	0.13	0.21	0.48	0.60	0.59	0.23	0.54	0.46	0.43	0.16	0.17	0.02	0.67	0.25	0.48	1.00																																	
Mn	-0.05	0.46	0.36	0.46	0	0.74	0.23	0.28	0.01	0.47	0.22	0.77	-0.01	0.22	0.43	0.56	0.33	0.20	0.19	0.44	0.31	0.11	0.11	0.14	0.05	1.00																																	
Mo	-0.04	0.44	0.31	0.28	0	0.57	0.25	0.44	0.01	0.65	0.18	0.54	0.02	0.13	0.50	0.30	0.26	0.11	0.25	0.42	0.59	-0.06	0.06	0.05	-0.06	0.60	1.00																																	
Na	-0.06	0.51	0.44	0.63	0	0.43	0.28	0.09	0.01	0.44	0.02	0.38	0.41	0.58	0.42	0.37	0.38	0.19	0.17	0.41	0.28	0.15	0.03	0.33	0.52	0.24	0.20	1.00																																	
Nb	-0.10	0.24	0.76	0.13	0	0.34	0.83	0.11	-0.04	0.03	0.76	0.29	0.29	0.41	0.36	0.39	0.85	0.68	0.78	0.31	0.09	0.64	0.82	0.79	0.35	0.04	0.05	0.10	1.00																																	
Ni	-0.02	0.57	0.71	0.71	0	0.56	0.64	0.24	-0.02	0.34	0.55	0.71	0.59	0.54	0.61	0.72	0.76	0.66	0.53	0.50	0.26	0.53	0.56	0.60	0.56	0.51	0.26	0.46	0.58	1.00																																	
P	-0.01	0.27	0.15	0.46	0	0.35	0.09	0.13	0.11	0.39	0.13	0.47	0.23	0.28	0.16	0.38	0.16	0.23	-0.03	0.43	0.18	0.07	0.02	0.02	0.28	0.40	0.33	0.26	-0.02	0.27	1.00																																	
Pb	-0.04	0.65	0.53	0.63	0	0.40	0.34	0.17	-0.04	0.48	0.14	0.38	0.21	0.70	0.39	0.44	0.49	0.20	0.20	0.40	0.31	0.44	0.14	0.46	0.58	0.19	0.11	0.44	0.22	0.49	0.23	1.00																																	
Rb	-0.05	0.47	0.80	0.42	0	0.49	0.72	0.15	-0.05	0.25	0.52	0.39	0.23	0.72	0.43	0.52	0.82	0.54	0.54	0.42	0.22	0.81	0.60	0.80	0.65	0.18	0.04	0.33	0.71	0.65	0.05	0.64	1.00																																	
Re	-0.05	0.43	0.22	0.50	0	0.39	0.17	0.31	0.08	0.61	0.06	0.44	0.22	0.35	0.44	0.23	0.17	0.14	0.12	0.39	0.45	-0.16	-0.02	0.08	0.09	0.44	0.66	0.35	-0.06	0.29	0.42	0.20	0.00	1.00																																	
S	-0.14	0.35	0.25	0.34	0	0.39	0.22	0.08	0.19	0.41	0.10	0.33	0.20	0.32	0.37	0.13	0.19	0.24	0.20	0.71	0.18	-0.02	0.13	0.17	0.20	0.34	0.25	0.42	0.01	0.29	0.55	0.17	0.05	0.51	1.00																																	
Sb	0.56	-0.09	-0.02	0.28	0	-0.06	0.01	0.02	-0.01	-0.02	0.13	0.29	0.31	-0.06	-0.01	0.32	0.05	0.28	-0.04	-0.04	-0.05	0.15	0.11	-0.03	0.12	0.00	-0.03	-0.04	0.09	0.14	0.15	-0.04	0.01	0.01	-0.03	1.00																																	
Sc	-0.05	0.64	0.89	0.51	0	0.57	0.77	0.18	-0.06	0.28	0.62	0.46	0.39	0.58	0.52	0.61	0.91	0.59	0.70	0.50	0.26	0.63	0.63	0.82	0.57	0.26	0.13	0.42	0.73	0.76	0.07	0.57	0.79	0.08	0.13	0.04	1.00																																	
Se	-0.12	0.48	0.45	0.57	0	0.35	0.42	0.20	0.13	0.46	0.22	0.43	0.54	0.53	0.57	0.29	0.43	0.41	0.38	0.50	0.31	0.18	0.29	0.40	0.47	0.27	0.29	0.59	0.23	0.53	0.38	0.35	0.29	0.66	0.70	0.01	0.39	1.00																																	
Sn	-0.11	0.35	0.65	0.28	0	0.41	0.68	0.20	-0.03	0.23	0.60	0.32	0.35	0.41	0.40	0.39	0.70	0.55	0.53	0.40	0.24	0.36	0.57	0.59	0.26	0.17	0.17	0.23	0.67	0.62	0.16	0.26	0.56	0.15	0.14	0.03	0.56	0.29	1.00																																	
Sr	-0.13	0.30	0.42	0.02	0	0.40	0.42	0.08	0.53	0.22	0.25	0.07	-0.09	0.24	0.39	0.03	0.35	0.24	0.48	0.53	0.11	0.18	0.33	0.42	0.02	0.13	0.11	0.10	0.32	0.24	0.12	0.15	0.29	0.12	0.44	-0.05	0.29	0.27	0.23	1.00																																	
Ta	-0.05	0.44	0.68	0.29	0	0.47	0.75	0.23	0.04	0.34	0.50	0.35	0.18	0.52	0.63	0.35	0.69	0.52	0.71	0.56	0.30	0.41	0.66	0.64	0.20	0.25	0.21	0.28	0.65	0.58	0.12	0.25	0.49	0.21	0.27	0.09	0.57	0.46	0.49	0.44	1.00																																	
Te	-0.06	0.43	0.35	0.30	0	0.43	0.37	0.60	-0.01	0.56	0.41	0.63	0.11	0.16	0.65	0.51	0.35	0.40	0.18	0.43	0.61	0.07	0.29	0.15	0.04	0.66	0.47	0.10	0.15	0.45	0.24	0.19	0.19	0.41	0.30	0.08	0.25	0.34	0.28	0.15	0.29	1.00																																	
Th	0.06	-0.16	0.12	-0.08	0	-0.15	0.29	0.09	-0.11	-0.24	0.53	0.06	0.34	-0.12	-0.05	0.33	0.28	0.47	0.27	-0.14	-0.14	0.17	0.47	0.21	0.07	-0.15	-0.13	-0.26	0.48	0.17	-0.06	-0.12	0.17	-0.19	-0.22	0.20	0.26	-0.12	0.24	-0.02	0.14	0.05	1.00																															
Ti	0.02	0.40	0.68	0.55	0	0.36	0.55	0.06	-0.15	0.20	0.43	0.45	0.52	0.58	0.32	0.55	0.73	0.50	0.48	0.26	0.12	0.56	0.43	0.63	0.62	0.11	0.06	0.58	0.67	0.65	0.16	0.52	0.67	0.09	0.05	0.18	0.73	0.35	0.54	0.06	0.41	0.03	0.20	1.00																															
Tl	-0.07	0.74	0.83	0.58	0	0.87	0.67	0.37	-0.02	0.64	0.53	0.69	0.15	0.59	0.61	0.63	0.79	0.48	0.54	0.74	0.50	0.46	0.46	0.63	0.38	0.68	0.56	0.41	0.49	0.69	0.40	0.55	0.65	0.41	0.42	0.03	0.72	0.44	0.51	0.37	0.52	0.55	0.01	0.49	1.00																															
U	-0.14	0.42	0.70	0.08	0	0.45	0.67	0.13	0.03	0.24	0.55	0.13	0.02	0.38	0.37	0.21	0.67	0.42	0.69	0.54	0.20	0.38	0.59	0.75	0.17	0.11	0.07	0.09	0.61	0.32	0.04	0.37	0.52	0.05	0.31	-0.07	0.66	0.28	0.42	0.53	0.55	0.19	0.23	0.33	0.58	1.00																															
V	0.34	0.11	0.08	0.62	0	0.02	0.06	0.09	-0.14	0.05	0.24	0.54	0.70	0.13	0.04	0.78	0.20	0.44	-0.09	-0.02	0.00	0.18	0.08	0.04	0.55	0.10	0.08	0.35	0.11	0.40	0.35	0.30	0.20	0.12	-0.01	0.49	0.29	0.17	0.15	-0.21	0.02	0.12	0.37	0.47	0.20	-0.09	1.00																															
W	0.25	-0.11	0.00	0.26	0	-0.13	0.12	0.05	-0.06	-0.10	0.28	0.29	0.49	-0.07	0.09	0.44	0.12	0.41	0.09	-0.03	-0.06	0.07	0.26	0.00	0.14	0.00	-0.02	0.06	0.22	0.29	0.12	0.00	0.05	0.01	-0.07	0.41	0.13	0.12	0.17	-0.14	0.22	0.10	0.44	0.22	-0.01	-0.07	0.57	1.00																															
Y	-0.08	0.49	0.83	0.27	0	0.56	0.86	0.26	0.03	0.32	0.64	0.35	0.19	0.52	0.68	0.42	0.84	0.69	0.82	0.63	0.32	0.60	0.86	0.75	0.32	0.26	0.19	0.26	0.75	0.67	0.07	0.32	0.68	0.11	0.26	0.04	0.76	0.44	0.55	0.46	0.82	0.34	0.22	0.46	0.65	0.69	0.01	0.14	1.00																															
Zn	-0.05	0.71	0.45	0.44	0	0.52	0.31	0.58	-0.01	0.90	0.06	0.33	0.03	0.54	0.71	0.27	0.36	0.11	0.09	0.53	0.85	0.02	0.02	0.21	0.15	0.38	0.53	0.51	0.02	0.35	0.26	0.49	0.28	0.57	0.27	-0.06	0.29	0.42	0.22	0.13	0.31	0.47	-0.27	0.25	0.52	0.14	0.07	-0.09	0.27	1.00																															
Zr	-0.12	0.38	0.78	0.09	0	0.51	0.75	0.07	0.04	0.15	0.55	0.21	0.08	0.39	0.44	0.23	0.76	0.43	0.97	0.49	0.14	0.46	0.67	0.75	0.14	0.17	0.21	0.13	0.78	0.47	-0.02	0.22	0.55	0.08	0.21	-0.05	0.70	0.31	0.50	0.50	0.63	0.12	0.25	0.49	0.56	0.74	-0.13	0.00	0.77	0.07	1.00																															

correlation	
grey	>0.2
green	>0.5
yellow	>0.7
red	>0.85

Table 3. Correlation coefficients between analyzed elements for 130 stream sediments samples, Munro Lake Property.

N

712,000 713,000 714,000 715,000 716,000 717,000 718,000 719,000 720,000 721,000 722,000 723,000 724,000 725,000 726,000 727,000

5,518,000 5,517,000 5,516,000 5,515,000 5,514,000 5,513,000 5,512,000 5,511,000 5,510,000 5,509,000 5,508,000

4,808 4,810 4,803 4,886 4,807 4,804 4,809 4,806 4,887 4,876 4,885 4,876 4,801 4,884 4,882 4,883 4,888 4,900 4,892 4,891 4,889 4,901 4,894 4,893 4,890 4,897 4,881 4,896 4,898 4,822 4,819 4,880 4,821 4,820 4,823 4,835 4,912 4,836 4,838 4,837 4,913 4,817 4,815 4,814 4,812 4,813 4,926 4,849 4,846 4,847 4,925 4,923 4,916 4,920 4,921 4,917 4,918 4,914 4,915 4,919 4,927 4,926 4,840 4,909 4,911 4,910 4,908 4,907 4,922 4,828 4,829 4,905 4,906 4,825 4,826 4,904 4,833 4,834 4,831 4,867 4,868 4,903 4,824 4,870 4,871 4,860 4,861 4,863 4,862 4,866 4,865 4,853 4,855 4,856 4,858 4,859 4,854 4,841 4,843 4,879 4,845 4,842 4,844 4,873 4,872 4,875

LEGEND

- Stream Sediment Sample
- Claims Outline
- Creeks
- Roads

ALMADEN MINERALS LTD.

Munro Lake Project, BC
Stream Sediment Samples
Location Map
Figure 4

Date: 10/9/2008
Author:
Office: AMM
Drawing:
Scale: 1:50000
Projection: UTM Zone 11 (NAD 27 for Canada)

0 0.5 1 2
kilometres

N

712,000 713,000 714,000 715,000 716,000 717,000 718,000 719,000 720,000 721,000 722,000 723,000 724,000 725,000 726,000 727,000

5,518,000 5,517,000 5,516,000 5,515,000 5,514,000 5,513,000 5,512,000 5,511,000 5,510,000 5,509,000 5,508,000

LEGEND

- Claims Outline
- Roads
- Creeks

Stream Sediments Samples
Ranges by Cu (ppm)

112	to 261	(7)
72	to 112	(6)
47.2	to 72	(20)
28.45	to 47.2	(32)
19.3	to 28.45	(32)
3.7	to 19.3	(33)

ALMADEN MINERALS LTD.

Munro Lake Project, BC
Stream Sediment Samples
Ranges by Cu (ppm)
Figure 5

Date: 10/6/2006
Author:
Office: AMM
Drawing:
Scale: 1:50000
Projection: UTM Zone 11 (NAD 27 for Canada)

0 0.5 1 2
Kilometres

N

712,000 713,000 714,000 715,000 716,000 717,000 718,000 719,000 720,000 721,000 722,000 723,000 724,000 725,000 726,000 727,000

5,518,000 5,517,000 5,516,000 5,515,000 5,514,000 5,513,000 5,512,000 5,511,000 5,510,000 5,509,000 5,508,000

LEGEND

- Claims Outline
- Roads
- Creeks

Stream Sediments Samples
Ranges by Ag (ppm)

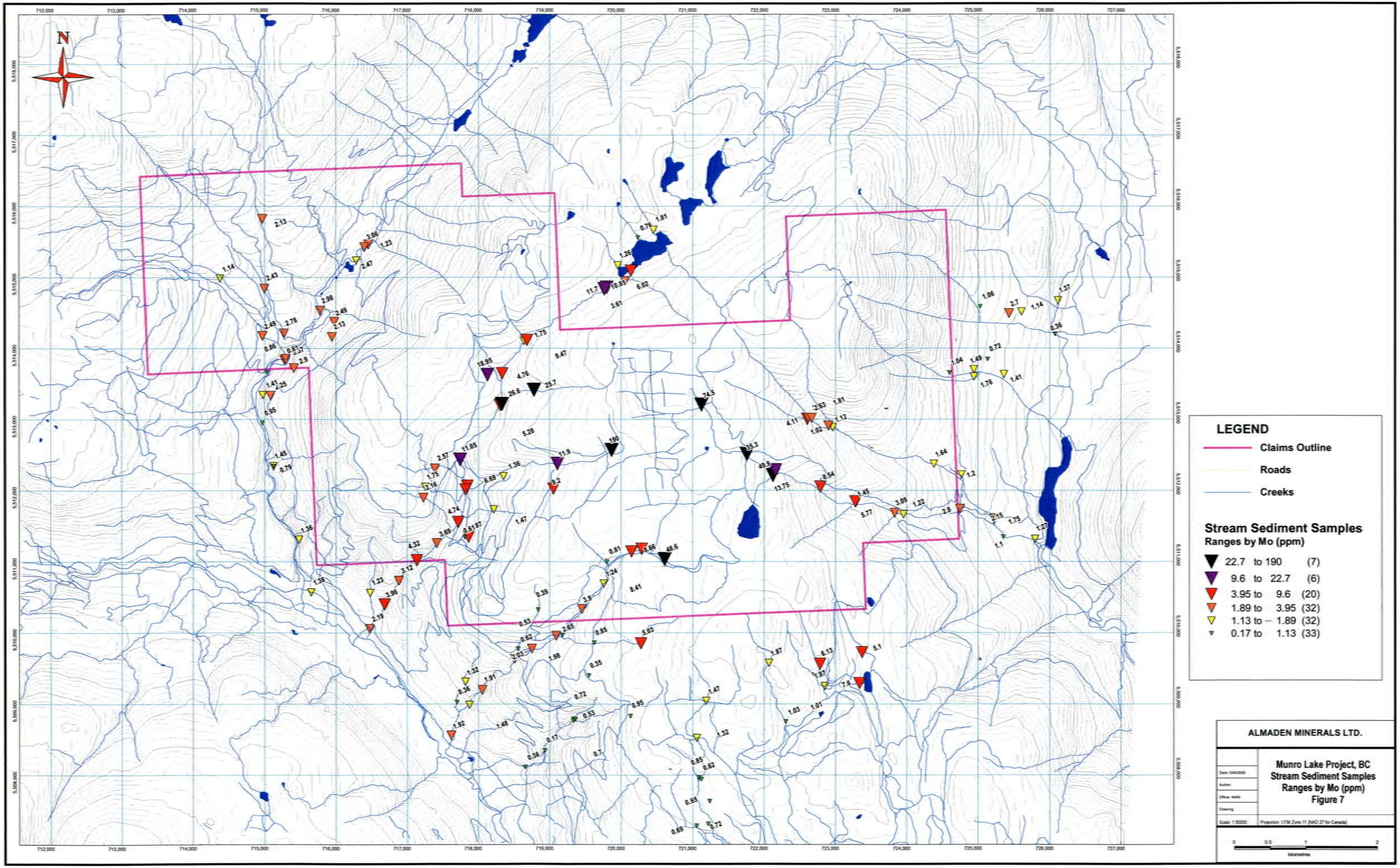
5	to 14	(7)
3.7	to 5	(7)
2.3	to 3.7	(19)
0.89	to 2.3	(32)
0.27	to 0.89	(32)
0.07	to 0.27	(33)

ALMADEN MINERALS LTD.

Munro Lake Project, BC
Stream Sediment Samples
Ranges by Ag (ppm)
Figure 6

Date: 10/8/2008
Author:
Office: AMM
Drawing:
Scale: 1:50000
Projection: UTM Zone 11 (NAD 27 for Canada)

0 0.5 1 2
kilometres


N
712,000
713,000
714,000
715,000
716,000
717,000
718,000
719,000
720,000
721,000
722,000
723,000
724,000
725,000
726,000
727,000
5,518,000
5,517,000
5,516,000
5,515,000
5,514,000
5,513,000
5,512,000
5,511,000
5,510,000
5,509,000
5,508,000
LEGEND
Claims Outline
Roads
Creeks
Stream Sediment Samples
Ranges by Mo (ppm)
22.7 to 190 (7)
9.6 to 22.7 (6)
3.95 to 9.6 (20)
1.89 to 3.95 (32)
1.13 to 1.89 (32)
0.17 to 1.13 (33)
ALMADEN MINERALS LTD.
Munro Lake Project, BC
Stream Sediment Samples
Ranges by Mo (ppm)
Figure 7
Projection: UTM Zone 11 (NAD 27 for Canada)
0 0.5 1 2
kilometres

The samples returning greater than 98th percentile results for copper (greater than 112 ppm), molybdenum (greater than 22.7 ppm) and silver (greater than 5 ppm) are located in the central portion of the claim, defining a roughly 4 by 2 kilometer area of elevated stream sediment values for these elements.

Complete analytical results for all samples are listed in the ALS Chemex laboratory certificates contained in Appendix III.

5.0 Conclusion and Recommendations

The 2008 geochemical stream sediment sampling program was successful in identifying a central area of the property of elevated copper, silver and molybdenum in sediment. The elevated sediment samples are from drainages that are distributed over a roughly 4 by 2 kilometer area.

It is recommended that the anomalous drainages identified in the 2008 stream sediment sampling program be followed up with a program of prospecting, geological mapping and rock chip sampling in an attempt to identify the source of the source of elevated sediment samples.

6.0 Personnel and Days Worked

Name	Work Period	Days Worked
Andrew Molner Rio Minerals Limited Vancouver BC Crew Supervisor/Sampler	June 17-28, 2008	12
Lyle Gregory Rio Minerals Limited Vancouver BC Sampler	June 18-July 2, 2008	15
Mitchell Francis Rio Minerals Limited Vancouver BC Sampler	June 18-July 2, 2008	15
Rodica Kaiser Almaden Minerals Ltd. Vancouver BC GIS Technician	June 30, 2008 July 31, 2008 September 30, 2008	3
Sam Zastavnikovich, P.Geo. Consultant Vancouver BC Geologist	June 30, 2008	1
Thomas Ullrich Almaden Minerals Limited Vancouver BC Geologist	October 6-10, 2008	5
Morgan Poliquin, P.Geo. Almaden Minerals Limited Vancouver, BC Geologist	October 15, 2008	0.5

7.0 Statement of Costs

(Expenditures for the period January 1, 2008 to October 15, 2008.)

Salary and Benefits:	
Rodica Kaiser	$808.23
Thomas Ullrich	$2 038.85
Morgan Poliquin	$261.15
Contract Technical Services:	
Rio Minerals Limited (42 mandays @$385/day)	$16 170.00
Sam Zastavnikovich	$250.00
Sample Preparation and Geochemical Analyses:	
ALS Chemex Laboratories Ltd.	
130 sediment samples @ $45.68/sample	$5 938.59
Equipment Rental:	
Truck (18 days @$95/day, June 18 – July 2, 2008) and ATV (14 days @$85/day; June 18, June 20 – July 2, 2008)	$2 900.00
Claim Maintenance:	$630.91
Travel and Accommodation:	
Accommodations, meals, per diem ($42.50x42 mandays), tolls	$5 716.99
Supplies and Maps:	$893.58
Total Expenditures	$35 608.30

8.0 Statement of Qualifications

I, Morgan J. Poliquin of Vancouver, British Columbia hereby certify that:

I reside at 2784 West 1st Avenue, Vancouver, B.C. and am the President, a Director, and the Chief Operating Officer of Almaden Minerals Ltd. and have a direct interest in the securities of Almaden Minerals Ltd.

I am a graduate of the University of British Columbia in geological engineering (B.A.Sc. in 1994) and the University of Auckland (M.Sc. in geology in 1996).

I have practised my profession continually since 1994.

I am a member in good standing of the Association of Professional Engineers and Geoscientists of B.C. (P.Eng.)

I have previously worked on and am familiar with the area and geological setting of the Munro Lake Property and I have gathered my information for this report from government publications, internal company documents, geological field notes and data that are believed to be reliable and accurate.

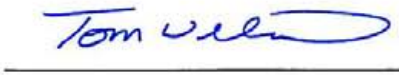
Dated at Vancouver, British Columbia, October 23, 2008.

Morgan J. Poliquin, P.Eng., M.Sc.

I, Thomas D. Ullrich of 501-1128 Quebec Street, Vancouver, British Columbia hereby certify that:

1. I have been conferred with the academic degree of Bachelor of Science (Honours, Geology) from Queen's University at Kingston, Ontario in 1994.
2. I have been engaged as a geologist in Canada, the United States, Mexico and Chile since 1994.
3. I am currently employed with Almaden Minerals Ltd., 1103-750 W. Pender Street, Vancouver BC V6C 2T8.
4. I have gathered information for this report from government publications, internal company documents, geological field notes and data that are believed to be reliable and accurate.

Dated at Vancouver, British Columbia, October 23, 2008.



Thomas D. Ullrich, B.Sc.

9.0 References

King, HL, 1997. Report on Diamond Drilling, Munro Lake Property, Summerland Area BC. 1997 BC Assessment Report, December 1997. 15 pages plus appendices.

Poliquin, MJ and King, HL, 1996. Report on Diamond Drilling, Munro Lake Property, Summerland Area BC. 1996 BC Assessment Report, November 1996. 14 pages plus appendices.

Tempelman-Kluit, DJ, 1989. Geology, Penticton, West of Sixth Meridian, British Columbia, Geological Survey of Canada, "A" Series Map, 1736A.

10.0 List of Software

The following software programs were used in exploration and development and in preparation of this report:

MapInfo Professional

Microsoft Excel

Microsoft Word

Adobe Acrobat

Appendices

.

Appendix I: Stream sediment sample locations and descriptions.

Sample #	Date	Easting	Northing	NAD	Elevation	Description	PH	Clay %	Silt %	Sand %	Gravel %	Organics	Compaction	Depth	Colour	Moisture	Rating	Drainage	Direction	Flow Rate	Width
4801	JUNE 19/08	0714970	5513342	NAD 27	1074	DRY CK.	-		20%	50%	10%	20%	LOOSE	4cm	BROWN	DAMP	MOD	SEASONAL	130	-	1m
4802	JUNE 19/08	0715090	5513336	NAD 27	1073	CAMP CK. MAIN RUNNING	7.3		30%	60%		10%	LOOSE	5cm	LT BROWN	WET	GOOD	PERENNIAL	216	MED	3m
4803	JUNE 19/08	0284096	5515223	NAD 27	1128	-	7.2		80%	5%	5%	10%	LOOSE	5cm	BROWN/BLACK	WET	GOOD	SEASONAL	148	MED	2m
4804	JUNE 19/08	0715772	5514530	NAD 27	1126	CHAPMAN CK. RUNNING MAIN	7		50%	30%	10%	10%	LOOSE	4cm	BROWN	WET	GOOD	SEASONAL	95	MED	2m
4805	JUNE 19/08	0715972	5514380	NAD 27	1114	-	7.1		50%	45%		5%	LOOSE	2cm	BROWN/BLACK	WET	GOOD	PERENNIAL	186	SLOW	2m
4806	JUNE 19/08	0715945	5514161	NAD 27	1114	-	7.2		60%	35%		5%	LOOSE	5cm	BROWN/BLACK	WET	GOOD	SEASONAL	236	MED	2m
4807	JUNE 20/08	0714988	5514846	NAD 27	1249	-	7		70%			30%	LOOSE	2cm	BROWN	WET	MOD	PERENNIAL	125	FAST	1m
4808	JUNE 20/08	0714962	5515828	NAD 27	1392	CHAPMAN CK. RUNNING	7.2		40%	40%	10%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	140	FAST	1.5m
4809	JUNE 20/08	0715188	5515210	NAD 27	1294	CHAPMAN CK.	7.1		30%	50%	10%	10%	LOOSE	3cm	BROWN	WET	GOOD	PERENNIAL	177	FAST	1.5m
4810	JUNE 20/08	0284285	5515435	NAD 83	1137	-	6.9		40%	30%	10%	20%	LOOSE	5cm	DARK GREY	WET	GOOD	PERENNIAL	303	SLOW	0.5m
4811	JUNE 20/08	0284224	5515403	NAD 83	1130	-	7.2		30%	50%	5%	15%	LOOSE	3cm	BROWN GREY	WET	GOOD	PERENNIAL	240	SLOW	1m
4812	JUNE 21/08	0285947	5513034	NAD 83	1395	TSUH CK.	8.2		30%	50%	10%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	173	MED	1.5m
4813	JUNE 21/08	0285974	5513045	NAD 83	1400	-	7.8		50%	20%	10%	20%	LOOSE	4cm	BROWN/BLACK	WET	GOOD	PERENNIAL	182	MED	1m
4814	JUNE 21/08	0286438	5513207	NAD 83	1463	-	7.8		50%	25%	5%	20%	LOOSE	3cm	BLACK/BROWN	WET	GOOD	PERENNIAL	286	MED	1m
4815	JUNE 21/08	0286012	5513475	NAD 83	1428	TSUH CK.	7.9		40%	50%		10%	LOOSE	3cm	BROWN/BLACK	WET	GOOD	PERENNIAL	208	MED	1.5m
4816	JUNE 21/08	0285805	5513472	NAD 83	1443	-	7.1		55%	20%	5%	20%	LOOSE	4cm	BLACK	WET	GOOD	PERENNIAL	175	MED	0.5 m
4817	JUNE 21/08	0286351	5513905	NAD 83	1482	-	7.7		60%	20%		20%	LOOSE	4cm	BLACK/GREY	WET	GOOD	PERENNIAL	151	SLOW	0.5m
4818	JUNE 21/08	0286395	5513915	NAD 83	1475	TSUH CK.	7.9		60%	15%	5%	20%	LOOSE	2cm	BROWN/GREY	WET	GOOD	PERENNIAL	218	FAST	2m
4819	JUNE 23/08	0284333	5510686	NAD 83	1078	-	7.9		40%	40%	10%	10%	LOOSE	2cm	BROWN/BLACK	WET	GOOD	PERENNIAL	230	FAST	2m
4820	JUNE 23/08	0284106	5510370	NAD 83	1028	-	7.9		60%	10%	10%	20%	LOOSE	2cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	195	FAST	2m
4821	JUNE 23/08	0283917	5510548	NAD 83	1036	-	-	30%	20%	20%		30%	TIGHT	5cm	BROWN	DAMP	POOR	SEASONAL	195	-	1m
4822	JUNE 23/08	0284608	5510954	NAD 83	1136	-	8.1		40%	50%	5%	5%	LOOSE	2cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	241	FAST	2m
4823	JUNE 23/08	0283870	5510042	NAD 83	982	-	-		40%	40%	5%	15%	LOOSE	2cm	BROWN	WET	GOOD	PERENNIAL	242	FAST	2.5m
4824	JUNE 23/08	0284894	5508461	NAD 83	954	-	7.9		30%	40%	5%	25%	LOOSE	3cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	209	FAST	1.5m
4825	JUNE 24/08	0285927	5509598	NAD 83	1309	-	8.3		50%	15%	5%	30%	LOOSE	3cm	BLACK	WET	GOOD	PERENNIAL	193	MED	0.5m
4826	JUNE 24/08	0285869	5509463	NAD 83	1282	O' HAGAN CK.	8.1		55%	5%		40%	LOOSE	2cm	BLACK/BROWN	WET	GOOD	PERENNIAL	187	FAST	1.5m
4827	JUNE 24/08	0286119	5509582	NAD 83	1318	O' HAGAN CK.	8		60%	10%		30%	LOOSE	3cm	GREY/BLACK	WET	GOOD	PERENNIAL	241	MED	2m
4828	JUNE 24/08	0286863	5510084	NAD 83	1420	-	7.9		70%	10%		20%	LOOSE	3cm	BROWN / BLACK	WET	GOOD	PERENNIAL	210	MED	2m
4829	JUNE 24/08	0286558	5509739	NAD 83	1377	-	7.9		65%	5%		30%	LOOSE	2cm	BROWN / BLACK	WET	GOOD	PERENNIAL	273	SLOW	0.8
4830	JUNE 24/08	0286470	5509736	NAD 83	1365	-	8		65%	10%		25%	LOOSE	3cm	BROWN / BLACK	WET	GOOD	PERENNIAL	265	FAST	2m
4831	JUNE 24/08	0285182	5508866	NAD 83	1043	-	7.9		40%	35%	10%	15%	LOOSE	3cm	BROWN / BLACK	WET	GOOD	PERENNIAL	206	FAST	2.5m
4832	JUNE 24/08	0285012	5508918	NAD 83	1025	ANCIENT CK. - soil	-	-	-	-	-	-	TIGHT	QUANTE	BROWN / GREY	DRY	POOR	SEASONAL	223	-	2m
4833	JUNE 24/08	0285152	5509196	NAD 83	1126	ANCIENT CK. - soil	-	-	-	-	-	-	TIGHT	20cm	BROWN	DRY	POOR	SEASONAL	176	-	1m
4834	JUNE 24/08	0285379	5509063	NAD 83	1119	O' HAGAN CK.	8		65%	10%		25%	LOOSE	3cm	BROWN/ BLACK/ GREY	WET	GOOD	PERENNIAL	190	FAST	1.5m
4835	JUNE 25/08	0288288	5515320	NAD 83	1560	-	7.2		85%			15%	LOOSE	3cm	BLACK	WET	GOOD	PERENNIAL	142	SLOW	0.5m
4836	JUNE 25/08	0287749	5514861	NAD 83	1562	-	6.9		75%	15%		10%	LOOSE	8cm	LT BROWN /BLACK	WET	GOOD	PERENNIAL	120	SLOW	0.5m
4837	JUNE 25/08	0287571	5514564	NAD 83	1560	-	7.4		75%	10%		15%	LOOSE	6cm	BLACK LT BROWN	WET	GOOD	PERENNIAL	268	SLOW	0.5m
4838	JUNE 25/08	0287834	5514633	NAD 83	1575	-	6.8		40%	10%	10%	40%	LOOSE	4cm	GREY / BLACK	WET	GOOD	PERENNIAL	291	SLOW	0.5m
4839	JUNE 25/08	0287924	5514771	NAD 83	1559	-	6.9		30%	40%	20%	10%	LOOSE	6cm	LT BROWN	WET	GOOD	PERENNIAL	333	SLOW	0.5m
4840	JUNE 26/08	0293261	5510556	NAD 83	907	-	7.8		50%	30%	10%	10%	LOOSE	4cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	94	MED	1m
4841	JUNE 26/08	0293848	5513875	NAD 83	911	-	7.9		35%	30%	20%	15%	LOOSE	3cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	134	SLOW	0.3m
4842	JUNE 26/08	0293771	5513406	NAD 83	908	-	8.2		35%	15%	5%	45%	LOOSE	4cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	42	MED	1m
4843	JUNE 26/08	0292757	5513880	NAD 83	1051	ANCIENT CK. -soil	-	-	10%	60%	30%		TIGHT	20cm	BROWN / GREY	DRY	POOR	SEASONAL	162	-	0.5m
4844	JUNE 26/08	0292804	5513132	NAD 83	1052	-	7.3		30%	20%	10%	40%	LOOSE	4cm	GREY / BLACK	WET	GOOD	PERENNIAL	136	SLOW	0.8m
4845	JUNE 26/08	0293325	5513760	NAD 83	993	-	7.7		60%	15%		25%	LOOSE	4cm	GREY,BROWN, BLACK	WET	GOOD	PERENNIAL	169	MED	1m
4846	JUNE 27/08	0290216	5512495	NAD 83	1414	-	7.4		35%	20%	10%	35%	LOOSE	3cm	BLACK, BROWN	WET	GOOD	PERENNIAL	111	FAST	1m
4847	JUNE 27/08	0290233	5512509	NAD 83	1416	-	7.3		35%	20%	15%	30%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	116	FAST	0.5m
4848	JUNE 27/08	0290280	5512507	NAD 83	1407	-	7.3		40%	25%	5%	30%	LOOSE	6cm	BLACK, BROWN	WET	GOOD	PERENNIAL	152	FAST	1.5m
4849	JUNE 27/08	0290406	5512643	NAD 83	1428	-	7.7		40%	30%	10%	20%	LOOSE	3cm	BLACK, BROWN	WET	GOOD	PERENNIAL	160	MED	1m
4850	JUNE 27/08	0290563	5512349	NAD 83	1354	-	7.3		30%	40%	15%	15%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	92	FAST	1.5m
4851	JUNE 27/08	0290536	5512388	NAD 83	1363	-	7.6		40%	35%	10%	15%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	158	MED	1m
4852	JUNE 27/08	0290504	5512378	NAD 83	1366	-	7.4		80%			20%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	116	FAST	1m
4853	JUNE 28/08	0289408	5509117	NAD 83	1589	-	6.5		10%			90%	LOOSE	35cm	BLACK, BROWN	WET	GOOD	PERENNIAL	230	SLOW	3m
4854	JUNE 28/08	0289578	5508281	NAD 83	1529	-	-	50%	40%			10%	LOOSE	5cm	BLACK	DRY	POOR	SEASONAL	166	-	0.5m
4855	JUNE 28/08	0290119	5509048	NAD 83	1541	-	6.4		65%		30%	5%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	201	SLOW	0.5m
4856	JUNE 28/08	0290024	5508902	NAD 83	1536	-	6.6		50%	50%			LOOSE	3cm	BLACK, BROWN	WET	GOOD	PERENNIAL	84	SLOW	0.8m
4857	JUNE 28/08	0290161	5508732	NAD 83	1520	-	6.8	20%	50%	25%		5%	LOOSE	3cm	BLACK, BROWN	WET	GOOD	PERENNIAL	132	SLOW	1m
4858	JUNE 28/08	0290719	5509164	NAD 83	1483	-	6.4	20%	50%			30%	LOOSE	4cm	BLACK	WET	GOOD	PERENNIAL	242	SLOW	1m
4859	JUNE 28/08	0290649	5508734	NAD 83	1488	-	6.7	20%	40%	30%		10%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	101	SLOW	1m
4860	JUNE 29/08	0288489	5508657	NAD 83	1548	KIRTON CK. RUNNING MAIN	7.3		40%	40%	10%	10%	LOOSE	4cm	BLACK, BROWN	WET	GOOD	PERENNIAL	210	SLOW	1m
4861	JUNE 29/08	0288316	5508148	NAD 83	1516	KIRTON CK. RUNNING MAIN	6.8		65%	20%	5%	10%	LOOSE	5cm	BLACK,GREY	WET	GOOD	PERENNIAL	103	SLOW	1m
4862	JUNE 29/08	0288427	5507250	NAD 83	1458	-	6.4		65%	20%	5%	10%	LOOSE	6cm	BLACK,GREY	WET	GOOD	PERENNIAL	198	SLOW	1m
4863	JUNE 29/08	0288301	5507590	NAD 83	1462	TRIBUTARY RUNNING	6.4		60%			40%	LOOSE	6cm	BLACK	WET	MOD	PERENNIAL	141	SLOW	1m
4864	JUNE 29/08	0288336	5507565	NAD 83	1470	KIRTON CK. RUNNING MAIN	6.8		40%			60%	TIGHT	4cm	BLACK, BROWN	WET	POOR	PERENNIAL	275	FAST	1m
4865	JUNE 29/08	0288381	5506935	NAD 83	1416	ANCIENT CK. - soil	-	-	-	-	-	-	TIGHT		BROWN, GREY	DRY	POOR	SEASONAL	237	-	1m
4866	JUNE 29/08	0288218	5506920	NAD 83	1404	-	6.8		65%			35%	LOOSE	5cm	BLACK	WET	MOD	PERENNIAL	180	MED	1m
4867	JUNE 30/08	0286618	5508553	NAD 83	1212	ANCIENT CK. - soil	-	-	-	-	-	-	TIGHT	20cm	GREY/BLACK	DRY	POOR	SEASONAL	230	-	1m
4868	JUNE 30/08	0286649	5508546	NAD 83	1213	RUNNING MAIN	7.3		60%			40%	LOOSE	6cm	BLACK, BROWN	WET	GOOD	PERENNIAL	310	MED	1m
4869	JUNE 30/08	0286616	5508528	NAD 83	1197	RUNNING MAIN	7.4		60%			40%	MED.	5cm	BLACK, GREY	WET	GOOD	PERENNIAL	228	MED	1m
4870	JUNE 30/08	0286188	5508144	NAD 83	1061	-	7.1		45%	10%	5%	40%	LOOSE	6cm	BLACK, GREY	WET	GOOD	PERENNIAL	256	MED	1m
4871	JUNE 30/08	0285892	5507933	NAD 83	1019	RUNNING MAIN	7		50%	10%	10%	30%	LOOSE	8cm	BLACK, GREY	WET	GOOD	PERENNIAL	258	MED	1m
4872	JULY 01/08	0292591	5512902	NAD 83	1062	ANCIENT CK. - soil	-	-	-	-	-	-	TIGHT	20cm	GREY	DRY	POOR	SEASONAL	78	-	1m
4873	JULY 01/08	0292599	5513001	NAD 83	1057	SILAS CK. MAIN FLOW DIVERTED	6.8		55%	15%	5%	25%	MED.	7cm	BLACK, GREY	WET	GOOD	PERENNIAL	70	SLOW	1m
4874	JULY 01/08	0292256	5512981	NAD 83	1111	SILAS CK. MAIN STREAM RECENTRLY FLOWED STRONG HERE			50%	30%	10%	10%	MED.	4cm	BLACK, GREY	DRY	GOOD	SEASONAL	92	-	1.5m
4875	JULY 01/08	0293012	5512900	NAD 83	1003	SILAS CK. RUNNING MAIN	7.2		50%	25%	5%	20%	MED.	5cm	BLACK, GREY	WET	GOOD	PERENNIAL	70	MED	1m
4876	JUNE 19/08	0715277	5513836	NAD 27	1116	-	7.4		20%	60%	20%		LOOSE	6cm	LT BROWN	DAMP	GOOD	PERENNIAL	125	FAST	2m
4877	JUNE 19/08	0715292	5513850	NAD 27	1118	-	7.2		30%	30%	30%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	194	FAST	2m
4878	JUNE 19/08	0715405	5513718	NAD 27	1093	MAIN CK. RUNNING	7.2		30%	30%	30%	10%	LOOSE	5cm	BROWN	WET	GOOD	PERENNIAL	130	FAST	4m
4879	JUNE 19/08	0715453	5513692	NAD 27	1089	CABIN CK. MAIN	7.4		40%	30%	20%	10%	LOOSE	5cm	BROWN	WET	GOOD	PERENNIAL	230	MED	3m
4880	JUNE 20/08	0715650	5510568	NAD 27	912	CABIN CK. MAIN	7		60%	40%			LOOSE	5cm	LT BROWN	WET	GOOD	PERENNIAL	202	MED	5m
4881	JUNE 20/08	0715480	5511303	NAD 27	1009	CABIN CK. MAIN	6.9		20%	80%			LOOSE	5cm	BROWN/BLACK	WET	GOOD	PERENNIAL	155	FAST	3m
4882	JUNE 20/08	0715120	5512338	NAD 27	1066	CABIN CK. MAIN	6.9		50%	40%	10%		LOOSE	4cm	BROWN/BLACK	WET	GOOD	PERENNIAL	226	MED	5m
4883	JUNE 20/08	0715132	5512245	NAD 27	1066	DRY CK.	-		60%	30%		10%	MED	15cm	GREY	DRY	MOD	SEASONAL	258	-	1m
4884	JUNE 20/08	0714966	5512957	NAD 27	1066	RUNNING TRIBUTARY	6.9		50%	20%	10%	20%	MED	8cm	BROWN/BLACK	WET	MOD	PERENNIAL	100	MED	1m
4885	JUNE 20/08	0715028	5513660	NAD 27	1120	DRY CK.	-		40%	40%		20%	MED	8cm	GREY	DAMP	MOD	SEASONAL	210	-	1m

Sample #	Date	Easting	Northing	NAD	Elevation	Description	PH	Clay %	Silt %	Sand %	Gravel %	Organics	Compaction	Depth	Colour	Moisture	Rating	Drainage	Direction	Flow Rate	Width
4886	JUNE 20/08	0714375	5514985	NAD 27	1320	SMALL CK.	6.5		40%	20%	10%	30%	LOOSE	6cm	BROWN/BLACK	WET	MOD	PERENNIAL	108	SLOW	1m
4887	JUNE 20/08	0714963	5514175	NAD 27	1190	-	6.7		30%	20%	10%	40%	LOOSE	4cm	BROWN	WET	MOD	PERENNIAL	164	FAST	2m
4888	JUNE 21/08	0285329	5512315	NAD 83	1300	TSUH CK. MAIN	7.1		50%	30%	15%	5%	LOOSE	5cm	BROWN	WET	GOOD	PERENNIAL	208	MED	3m
4889	JUNE 21/08	0285915	5512030	NAD 83	1358	-	7		60%	30%	10%		LOOSE	4cm	GREY/BROWN	WET	GOOD	PERENNIAL	342	FAST	1m
4890	JUNE 21/08	0285743	5511578	NAD 83	1340	DRY CK.	-		20%	60%	20%		MED	10cm	BROWN	DAMP	MOD	SEASONAL	272	-	1m
4891	JUNE 21/08	0287455	5512280	NAD 83	1580	SWAMPY AREA	6.5	10%	50%	10%	10%	20%	MED	6.8cm	GREY/BLACK	WET	MOD	PERENNIAL	300	SLOW	2.4m
4892	JUNE 21/08	0286683	5512148	NAD 83	1487	-	6.9		60%	30%	10%		LOOSE	5cm	GREY/BROWN	WET	GOOD	PERENNIAL	296	MED	1m
4893	JUNE 21/08	0286597	5511803	NAD 83	1506	RUNNING CK. SWAMPY AREA	6.6		50%	25%	10%	15%	LOOSE	5cm	GREY/BLACK	WET	GOOD	PERENNIAL	310	MED	2m
4894	JUNE 21/08	0285398	5511938	NAD 83	1260	-	7.2		40%	30%	20%	10%	LOOSE	4cm	GREY/BROWN	WET	GOOD	PERENNIAL	200	MED	2m
4895	JUNE 21/08	0285370	5511888	NAD 83	1245	-	7.3		20%	40%	30%	10%	LOOSE	5cm	GREY/BROWN	WET	GOOD	PERENNIAL	220	FAST	4m
4896	JUNE 23/08	0284907	5511168	NAD 83	1125	TSUH CK. MAIN	7.5		20%	40%	25%	15%	LOOSE	5cm	GREY / BROWN	WET	GOOD	PERENNIAL	226	FAST	3m
4897	JUNE 23/08	0285230	5511440	NAD 83	1215	TSUH CK. MAIN	7.5		20%	50%	25%	5%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	240	FAST	3m
4898	JUNE 23/08	0285358	5511220	NAD 83	1240	TRIBUTARY	7.1		60%	10%	10%	20%	LOOSE	4cm	GREY / BLACK	WET	POOR	PERENNIAL	260	-	1m
4899	JUNE 23/08	0285307	5511220	NAD 83	1246	RUNNING TRIBUTARY	7.2		60%	20%		20%	LOOSE	4cm	GREY / BLACK	WET	MOD	PERENNIAL	108	SLOW	1m
4900	JUNE 23/08	0284965	5512218	NAD 83	1360	DRY CK.	-		30%	40%	10%	20%	LOOSE	8cm	BROWN	DAMP	MOD	SEASONAL	102	-	1m
4901	JUNE 23/08	0284813	5511970	NAD 83	1384	DRY CK.	-		20%	40%	20%	20%	MED	12cm	BROWN	DAMP	POOR	SEASONAL	124	-	3m
4902	JUNE 23/08	0284770	5511820	NAD 83	1382	DRY CK.	-		20%	40%	20%	20%	MED	12cm	BROWN	DAMP	POOR	SEASONAL	112	-	2m
4903	JUNE 24/08	0287418	5508530	NAD 83	1478	-	6.6		20%	20%	20%	40%	MED	3cm	GREY / BALCK	WET	MOD	PERENNIAL	290	SLOW	1m
4904	JUNE 24/08	0286883	5509145	NAD 83	1470	-	6.8		30%	30%	10%	30%	LOOSE	4cm	BROWN	WET	MOD	PERENNIAL	260	SLOW	1m
4905	JUNE 24/08	0286996	5509597	NAD 83	1450	-	6.8		20%	30%	40%	10%	LOOSE	4cm	GREY / BROWN	WET	GOOD	PERENNIAL	296	MED	2m
4906	JUNE 24/08	0287648	5509536	NAD 83	1508	SWAMPY STREAM	6.6		50%	20%	10%	20%	MED	5cm	GREY / BLACK	WET	MOD	PERENNIAL	240	SLOW	1m
4907	JUNE 24/08	0287195	5510415	NAD 83	1458	O' HAGEN CK. MAIN	7		50%	30%	15%	5%	LOOSE	4cm	LT BROWN	WET	GOOD	PERENNIAL	232	FAST	2m
4908	JUNE 24/08	0287265	5510720	NAD 83	1498	-	6.8		30%	20%	45%	5%	LOOSE	4cm	GREY / BROWN	WET	GOOD	PERENNIAL	156	MED	1m
4909	JUNE 24/08	0287765	5510860	NAD 83	1524	-	6.7		50%	30%	10%	10%	LOOSE	4cm	LT BROWN	WET	GOOD	PERENNIAL	240	MED	.5m
4910	JUNE 24/08	0288075	5510690	NAD 83	1535	O' HAGEN CK. MAIN	6.6		60%	20%	10%	10%	MED	4cm	GREY / BLACK	WET	GOOD	PERENNIAL	324	MED	2m
4911	JUNE 24/08	0287618	5510835	NAD 83	1512	O' HAGEN CK. MAIN	6.6		50%	30%	10%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	270	-	2m
4912	JUNE 24/08	0288062	5515228	NAD 83	1565	-	7		55%	40%		5%	LOOSE	5cm	GREY / BLACK	WET	GOOD	PERENNIAL	142	SLOW	.5m
4913	JUNE 24/08	0287532	5514547	NAD 83	1550	HEAD WATERS OF TSUH CK.	7		30%	30%	30%	10%	LOOSE	6cm	LT BROWN	WET	GOOD	PERENNIAL	236	MED	2m
4914	JUNE 26/08	0291332	5511080	NAD 83	1192	DARKE CK. MAIN	7.1		30%	60%	10%		LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	110	MED	1.5m
4915	JUNE 26/08	0291456	5511050	NAD 83	1185	RUNNING TRIBUTARY	6.8		40%	40%	10%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	18	MED	1m
4916	JUNE 26/08	0290325	5511530	NAD 83	1375	DARKE CK. MAIN	7.1		40%	20%	35%	5%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	138	MED	2m
4917	JUNE 26/08	0290800	5511260	NAD 83	1295	TRIBUTARY SORNE BLACK SAND	7.1		40%	40%	15%	5%	LOOSE	4cm	BROWN/BLACK	WET	GOOD	PERENNIAL	58	MED	0.5m
4918	JUNE 26/08	0290795	5511285	NAD 83	1295	DARKE CK. MAIN	7,2		20%	30%	50%		LOOSE	3cm	BROWN	WET	GOOD	PERENNIAL	97	MED	2m
4919	JUNE 26/08	0292250	5511062	NAD 83	1047	DARKE CK. MAIN	7.3		30%	20%	45%	5%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	100	MED	2m
4920	JUNE 26/08	0291936	5511722	NAD 83	1110	DANIELS CK. MAIN	7.2		10%	50%	40%		LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	122	MED	3m
4921	JUNE 26/08	0292308	5511540	NAD 83	1060	DANIELS CK. MAIN	7.2		40%	30%	20%	10%	LOOSE	4cm	BROWN	WET	GOOD	PERENNIAL	95	MED	1m
4922	JUNE 27/08	0286250	5510122	NAD 83	1435	-	6.8		50%	10%	10%	30%	LOOSE	4cm	GREY / BLACK	WET	MOD	PERENNIAL	210	SLOW	0.5m
4923	JUNE 27/08	0289675	5511745	NAD 83	1528	RUNNING CK, FROM M.L.	7		40%	40%	10%	10%	MED	4cm	BROWN	WET	GOOD	PERENNIAL	70	MED	1m
4924	JUNE 27/08	0289711	5511814	NAD 83	1516	DARKE CK. MAIN	7		30%	30%	30%	10%	LOOSE	4cm	BROWN	WET	MOD	PERENNIAL	120	MED	1.5m
4925	JUNE 27/08	0289335	5512070	NAD 83	1572	DARKE CK. MAIN	6.7		50%	30%	15%	5%	LOOSE	3cm	BROWN/BLACK	WET	GOOD	PERENNIAL	138	MED	0.5m
4926	JUNE 27/08	0288755	5512814	NAD 83	1658	DARKE CK. HEADWATERS	6.4		40%	20%	10%	30%	MED	3cm	BROWN/BLACK	WET	MOD	PERENNIAL	122	MED	0.5m
4927	JULY 01/08	0292720	5510901	NAD 83	990	-	7.2		50%	30%	10%	10	LOOSE	5	BLACK, GREY	WET	GOOD	PERENNIAL	191	SLOW	1m
4928	JULY 01/08	0292712	5510874	NAD 83	985	DARKE CK. MAIN	7.3		70%	10%		20%	LOOSE	6cm	BLACK, GREY	WET	GOOD	PERENNIAL	110	FAST	1.5m
4929	JULY 01/08	0292822	5510620	NAD 83	966	DARK CK. MAIN	7.4		60%	15%		25%	LOOSE	6cm	BLACK, GREY	WET	GOOD	PERENNIAL	140	FAST	1.5m
4930	JULY 01/08	0293280	5511226	NAD 83	940	-	7.7		65%	10%	10%	15%	LOOSE	5cm	BLACK, GREY	WET	GOOD	PERENNIAL	121	SLOW	1m

Appendix II: Summary of analytical results: stream sediment sample geochemistry.

	Au-ST44	Au-OG44	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	Au	Au	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
NUMBER	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
4801	>0.1000	0.13	0.29	1.52	8.5	<0.2	<10	220	0.57	0.56	0.64	0.77	46.4	12.7	31	1.37	40.1	4.72
4802	0.028		0.19	0.95	2.3	<0.2	<10	170	0.63	1.13	0.6	0.19	53.8	5.2	16	0.87	19.2	3.16
4803	0.0044		0.31	0.69	2.2	<0.2	<10	90	0.24	0.7	0.73	0.85	17.55	4	14	0.92	25.5	1.5
4804	0.001		0.22	1.61	2.9	<0.2	<10	310	1.03	0.95	0.65	0.18	100.5	6.5	15	1.12	21.6	3.04
4805	0.0007		0.26	1.26	3.2	<0.2	<10	190	0.78	0.82	0.87	0.28	66.7	6	21	1.05	23.4	2.32
4806	0.0045		0.21	1.11	2.6	<0.2	<10	170	0.66	0.8	0.75	0.22	59.6	5.3	15	0.92	19.2	2.19
4807	0.0005		0.16	1.02	1.6	<0.2	<10	200	0.74	0.28	0.57	0.16	46.8	3.5	10	0.9	15.6	1.73
4808	0.001		0.18	1.14	2.1	<0.2	<10	220	0.7	5.72	0.46	0.12	67.8	4.8	11	0.92	11.6	2.09
4809	0.0048		0.2	1.32	2.4	<0.2	<10	270	0.87	0.26	0.56	0.16	81.2	5.4	14	1.01	13.5	2.32
4810	0.0057		0.49	0.69	3	<0.2	<10	80	0.24	0.67	0.79	0.45	18.7	4.4	14	0.91	46.6	1.72
4811	0.0014		0.56	1.24	5.9	<0.2	<10	150	0.42	1.12	1.1	1.13	26.8	8.7	19	1.59	74.7	2.55
4812	0.0146		1.7	1.22	3.1	<0.2	<10	340	0.38	1.61	0.72	0.61	24.4	6.1	15	1.67	26.9	2.68
4813	0.033		2.77	1.75	2.2	<0.2	<10	340	0.61	2.44	0.81	1.65	26.3	5.2	13	1.41	83.7	2.29
4814	0.0022		3.94	2.03	2.5	<0.2	<10	430	0.72	2.9	0.98	2.21	27.1	4.7	12	1.56	105.5	2.13
4815	0.0019		1.93	1.26	3.6	<0.2	<10	390	0.4	0.81	0.78	0.85	25.7	6.5	13	1.86	28.5	2.57
4816	0.0011		2.61	1.84	3.7	<0.2	<10	830	0.76	2.27	1.15	1.02	58.2	20.2	8	1.55	126.5	5.22
4817	0.0086		1.73	0.83	2.1	<0.2	<10	360	0.36	0.59	1.69	1.04	18.45	5.4	10	1.52	82.4	1.72
4818	0.004		2.85	1.54	4.7	<0.2	<10	460	0.54	0.89	0.91	1.15	26.7	7	13	2.25	39.1	2.49
4876	0.0025		0.13	1.36	1.9	<0.2	<10	210	0.85	0.58	0.5	0.14	52.2	5.9	14	1.2	19.6	2.54
4877	0.0036		0.16	0.88	2	<0.2	<10	170	0.63	0.49	0.49	0.16	46.5	4.3	12	0.83	14.6	2.13
4878	0.0045		0.16	1.13	1.9	<0.2	<10	180	0.72	0.55	0.5	0.15	46.6	4.5	24	0.98	25.3	2.12
4879	0.002		0.14	0.74	1.9	<0.2	<10	110	0.42	0.51	0.58	0.2	49.3	4.5	30	0.72	20	2.91
4880	0.0008		0.14	0.77	1.6	<0.2	<10	110	0.44	0.42	0.46	0.13	37.5	3.9	13	0.77	13.9	1.88
4881	0.0207		0.11	0.62	1.3	<0.2	<10	80	0.31	0.48	0.44	0.11	41.2	4.3	19	0.64	11.1	3.35
4882	0.0071		0.16	0.8	1.6	<0.2	<10	110	0.46	0.77	0.49	0.15	44.8	4.4	16	0.82	16.1	2.46
4883	0.0016		0.24	0.46	<2	<0.2	<10	220	0.13	0.27	20.9	0.74	9.85	2.3	7	0.68	33.7	0.62
4884	0.0026		1.84	3.56	4.4	<0.2	<10	350	1.99	1.61	1.03	0.56	88.6	6.3	29	3.12	168	2.95
4885	0.0061		0.24	1.54	2.7	<0.2	<10	180	0.73	0.56	0.54	0.18	44.9	5.5	21	1.04	38	2.07
4886	0.0014		0.49	2.35	2.3	<0.2	<10	310	1.81	0.72	0.52	0.14	105	5.9	18	1.24	64.8	2.28
4887	0.0003		0.16	1.22	1.6	<0.2	<10	190	0.83	0.42	0.57	0.14	52.2	4.5	12	1.13	21	1.78
4888	0.0024		1.66	1.22	2.5	<0.2	<10	280	0.39	1.26	0.59	0.89	25.2	5.3	16	1.39	47.3	2.24
4889	0.0399		0.45	0.61	0.9	<0.2	<10	110	0.25	0.54	0.34	0.14	23	3.1	11	0.74	23.1	1.9
4890	0.0031		1.71	2.05	2.1	<0.2	<10	380	0.72	0.49	0.92	0.43	25.9	4.4	17	1.63	53.5	2.09
4891	0.0046		6.6	2.88	5	<0.2	<10	1290	1.12	2.13	1.38	4.07	49.7	16.9	14	1.77	128.5	3.41
4892	0.0035		2.02	1.77	1.5	<0.2	<10	370	0.61	1.34	0.8	0.95	23.3	4.1	10	1.14	57.8	1.7
4893	0.0033		3.51	3.77	2.8	<0.2	<10	500	1.52	1.72	1.03	0.75	64.3	5.6	17	2.06	133	2.87
4894	0.0027		1.08	1.03	1.2	<0.2	<10	210	0.42	0.82	0.54	0.47	23.8	3.6	12	1.07	41.2	1.92
4895	0.0027		1.54	1.04	1.8	<0.2	<10	240	0.36	0.94	0.66	0.72	22.6	4.4	11	1.23	39.2	1.78
4819	0.0021		0.51	0.5	1.7	<0.2	<10	120	0.18	0.52	0.31	0.26	14.05	2.5	9	0.75	18.1	1.72
4820	0.0011		0.59	0.52	1.2	<0.2	<10	130	0.22	0.6	0.46	0.35	16.9	2.8	12	0.79	20.3	2.12
4821	0.0003		0.08	0.98	0.7	<0.2	<10	170	0.27	0.28	0.14	0.08	13.35	2.8	7	1.12	7	1.13
4822	0.0012		0.67	0.61	1.3	<0.2	<10	160	0.25	0.69	0.39	0.41	15.4	2.8	8	0.91	20.4	1.44
4823	0.0161		0.44	0.5	0.9	<0.2	<10	110	0.2	3.02	0.35	0.25	16.25	2.8	12	0.73	18	2.56
4824	0.0032		0.94	1.29	1.1	<0.2	<10	330	0.49	0.61	0.91	0.49	26.1	3.1	10	1.1	30.7	1.72
4825	0.0014		0.45	0.76	0.9	<0.2	<10	320	0.41	0.25	0.87	0.45	15.1	2.8	7	0.85	40.6	1.15
4826	>0.1000	0.1	0.78	1	1	<0.2	<10	250	0.36	0.56	0.52	0.42	21.2	2.4	9	0.86	21.9	1.74
4827	0.0009		0.55	0.78	0.6	<0.2	<10	190	0.29	0.47	0.34	0.27	14.8	1.9	5	0.72	15	1.02
4828	0.0012		0.87	0.97	1	<0.2	<10	240	0.33	0.65	0.47	0.5	18.55	2.4	6	0.82	20.4	1.19
4829	0.0013		0.88	1.71	1	<0.2	<10	370	0.75	0.51	0.74	0.24	38.5	2.7	8	1.03	28.7	1.64
4830	0.0304		0.78	0.95	0.8	<0.2	<10	250	0.36	0.62	0.44	0.43	19.85	2.3	6	0.82	19.1	1.17

	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re
NUMBER	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
4801	6.34	0.21	0.07	0.04	0.047	0.19	48.3	12.9	0.37	1530	1.41	0.02	1.18	15.5	1010	16.1	16.2	0.001
4802	5	0.15	0.04	0.02	0.042	0.09	40	9	0.22	396	2.25	<0.01	1.09	6.2	860	10.5	13.5	0.001
4803	2.83	0.07	0.03	0.02	0.033	0.08	10.8	7.1	0.25	341	1.23	0.01	0.66	6.6	790	7.7	10.2	0.002
4804	6.61	0.21	0.04	0.04	0.046	0.13	65.2	14.2	0.31	614	2.98	0.01	1.13	8.4	890	13.8	17.6	0.001
4805	5.53	0.18	0.05	0.03	0.043	0.12	54.8	14	0.33	404	2.49	0.01	1.1	11.5	910	13.5	15.2	0.002
4806	4.97	0.16	0.04	0.03	0.036	0.1	48.6	12.1	0.29	385	2.13	0.01	1.02	7.5	890	11.2	13.6	0.002
4807	4.11	0.14	0.02	0.04	0.025	0.08	40.4	9.3	0.16	261	2.43	<0.01	0.91	5.2	740	9.8	13.1	0.001
4808	4.72	0.17	0.03	0.03	0.019	0.08	49.3	10.5	0.22	437	2.13	<0.01	0.92	6.1	820	9.7	13.4	0.001
4809	5.3	0.2	0.03	0.03	0.022	0.09	61.2	12.1	0.25	542	2.78	<0.01	0.97	8	840	10.9	15.1	0.001
4810	2.99	0.08	0.04	0.02	0.034	0.09	13.7	7.9	0.25	238	2.47	0.01	0.65	6.7	780	8.7	11.1	0.003
4811	5.01	0.1	0.04	0.04	0.061	0.19	18	13.6	0.48	876	3.06	0.02	1.06	12.5	1000	16.6	17.3	0.002
4812	4.57	0.08	0.04	0.03	0.094	0.11	15.6	10.2	0.31	1565	5.28	0.01	0.69	8.2	950	27	14.8	0.001
4813	5.54	0.1	0.06	0.06	0.431	0.09	22.4	12.5	0.23	1230	26.6	0.01	0.93	8.4	530	16.8	16.7	0.005
4814	5.92	0.1	0.06	0.07	0.577	0.09	26.6	13.1	0.23	1490	25.7	0.01	0.95	8.8	590	19.5	17	0.004
4815	4.68	0.09	0.04	0.05	0.1	0.12	16.6	10.3	0.32	2180	4.76	<0.01	0.67	8.3	1040	30.4	18.6	0.001
4816	6.47	0.2	0.07	0.11	0.111	0.14	58.1	13.2	0.2	19100	18.95	0.01	0.84	21.1	1000	14.1	18.3	0.002
4817	3.16	0.06	0.04	0.06	0.093	0.11	11.7	6.8	0.28	1535	1.75	0.01	0.48	6.1	900	30.6	15.6	0.001
4818	5.38	0.1	0.05	0.08	0.125	0.13	21	12.6	0.33	2820	9.47	<0.01	0.69	9.7	1030	35.7	16.9	0.002
4876	5.61	0.13	0.04	0.04	0.042	0.08	36.6	11.3	0.21	568	2.78	<0.01	1.47	7.5	620	13.4	16.5	0.001
4877	3.95	0.12	0.03	0.03	0.04	0.07	33.6	8.4	0.18	326	3.57	<0.01	0.89	6	670	10.3	12.6	0.001
4878	4.65	0.11	0.03	0.04	0.038	0.08	34.5	10.1	0.19	349	2.9	<0.01	1.07	14.4	690	12.2	15.7	0.001
4879	4.38	0.14	0.03	0.02	0.029	0.07	39.5	8.1	0.2	260	2.7	<0.01	0.93	16	1030	8.2	11.9	0.002
4880	3.69	0.1	0.04	0.02	0.028	0.07	28.1	8.4	0.19	275	1.38	<0.01	0.97	6	730	7.9	11.8	0.001
4881	4.21	0.11	0.03	0.02	0.025	0.06	28.6	6.5	0.17	248	1.36	<0.01	0.91	5.7	910	6.7	9.4	0.001
4882	4.26	0.12	0.04	0.02	0.03	0.07	34	8.7	0.19	297	1.45	<0.01	0.99	7.1	780	8.7	12.2	0.001
4883	1.63	<0.05	0.04	0.04	0.03	0.09	7.2	3.4	0.15	401	0.79	<0.01	0.48	4	790	6.4	8.6	0.001
4884	12.05	0.29	0.5	0.08	0.123	0.21	141	37.1	0.34	716	0.95	0.03	2.28	22.1	440	16.6	27.3	0.001
4885	5.55	0.1	0.15	0.02	0.037	0.13	40.5	14.7	0.22	529	0.86	0.02	1.46	15.9	470	12.3	13.5	<0.001
4886	8.88	0.17	0.22	0.06	0.068	0.1	91.1	16.4	0.23	359	1.14	0.02	1.87	14.7	360	18	18	<0.001
4887	4.51	0.08	0.05	0.05	0.031	0.08	34.9	10.6	0.18	510	2.49	0.02	1.24	7.9	610	11.2	13.7	0.001
4888	4.2	0.06	0.06	0.04	0.18	0.09	16.8	10.5	0.26	1130	11.05	0.02	0.77	10.4	710	20	13.8	0.002
4889	2.62	0.06	0.06	0.02	0.059	0.07	19.2	6.1	0.14	247	1.36	0.01	0.73	5.3	570	7.6	9.1	<0.001
4890	6.28	0.08	0.13	0.05	0.068	0.17	32.8	31.3	0.3	580	1.47	0.02	1.16	13.3	350	13.3	26.5	<0.001
4891	8.07	0.1	0.3	0.15	0.444	0.09	32.8	15.2	0.18	11700	190	0.03	1.18	14.3	1320	17.2	12.5	0.011
4892	5.34	0.05	0.1	0.05	0.273	0.09	19.7	12.8	0.21	841	11.9	0.02	0.95	7.7	480	17.5	14.5	0.001
4893	11.2	0.14	0.4	0.06	0.257	0.16	67.2	42	0.31	942	9.2	0.03	2.16	15.6	450	24.2	25.7	0.001
4894	3.73	0.06	0.07	0.04	0.133	0.1	21.9	9.8	0.18	540	3.99	0.01	0.81	7.2	550	13.9	12.9	<0.001
4895	3.68	0.05	0.05	0.04	0.131	0.1	16	9.5	0.23	915	6.69	0.02	0.68	6.5	740	16.3	13.1	0.001
4819	2.24	<0.05	0.03	0.02	0.057	0.06	8.6	4.7	0.15	537	3.12	<0.01	0.43	3.7	490	9.7	7.9	<0.001
4820	2.6	0.05	0.03	0.01	0.062	0.07	11	5.2	0.15	563	3.96	<0.01	0.51	4.7	610	10.7	8.1	0.001
4821	3.68	<0.05	0.03	0.02	0.022	0.13	4.9	7.4	0.15	527	1.23	<0.01	0.74	5.1	500	8.4	14.1	<0.001
4822	2.45	0.05	0.03	0.02	0.074	0.07	10.2	6	0.17	760	4.32	<0.01	0.46	4.4	530	12.6	9.1	0.001
4823	2.64	0.05	0.03	0.01	0.059	0.06	10.3	4.8	0.14	462	2.19	<0.01	0.51	4	560	9.2	7.8	<0.001
4824	4.27	0.07	0.05	0.06	0.097	0.13	24.5	12.9	0.23	796	1.92	<0.01	0.94	6.9	770	10.6	18.1	<0.001
4825	2.76	0.06	0.05	0.04	0.026	0.09	18.9	8.1	0.16	1295	0.62	0.01	0.55	7.1	580	7.9	10.1	<0.001
4826	3.43	0.05	0.04	0.05	0.089	0.1	15.8	8.1	0.15	853	2.03	<0.01	0.62	4.6	680	10.1	12.2	0.001
4827	2.65	<0.05	0.04	0.02	0.069	0.06	10.5	6.4	0.12	611	1.98	<0.01	0.44	3.4	430	8.1	9.4	0.001
4828	3.09	<0.05	0.04	0.03	0.109	0.07	13.3	7.4	0.13	1105	3.9	<0.01	0.51	3.9	580	11.2	10.1	0.001
4829	5.3	0.09	0.09	0.06	0.064	0.12	35.6	15.4	0.21	685	0.53	<0.01	0.83	7.6	470	9.8	17.1	<0.001
4830	3.07	<0.05	0.05	0.04	0.091	0.08	14.2	7.8	0.14	1060	2.65	<0.01	0.51	4.2	530	10.5	10.5	0.001

	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
NUMBER	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
4801	0.03	126	4.6	1.1	0.4	52.5	0.01	0.05	7.7	0.076	0.15	6.64	135	5.52	37.2	148	2.1
4802	0.04	39.7	2.7	0.8	0.4	68.5	<0.01	0.05	12.6	0.049	0.09	14	79	3.48	14.65	77	1.1
4803	0.09	10.25	2.4	1.1	0.3	58.5	<0.01	0.02	6.7	0.041	0.07	4.39	38	0.86	10.95	89	1.3
4804	0.04	6.21	3.7	0.9	0.4	147	<0.01	0.08	9.5	0.05	0.13	19.75	64	0.8	19.4	83	1.1
4805	0.08	5.29	3.3	1.4	0.4	103	<0.01	0.06	5.9	0.049	0.11	14.15	52	0.6	18	89	1.4
4806	0.06	3.35	2.9	1.1	1.2	87.2	<0.01	0.07	5.7	0.045	0.1	11.9	49	1.14	15.5	78	1.2
4807	0.04	3.51	2	0.6	0.3	88	<0.01	0.02	3.5	0.036	0.08	15.65	39	1.7	13.8	63	0.5
4808	0.02	4.81	2.5	0.6	0.3	102	<0.01	0.02	8.3	0.044	0.1	15.1	50	0.85	13.05	51	0.7
4809	0.03	4.49	2.9	0.7	0.4	129	<0.01	0.02	5.6	0.047	0.11	17.4	53	0.6	16.45	60	0.8
4810	0.06	3.85	2.4	0.9	0.3	75.9	<0.01	0.03	1.8	0.041	0.07	10.6	47	0.92	13.95	64	1.1
4811	0.07	4.4	3.9	1.9	0.4	98.8	<0.01	0.07	2.9	0.062	0.15	7.04	63	0.87	17.85	144	1.4
4812	0.04	2.43	3.5	0.8	0.3	66.7	<0.01	0.04	2.3	0.042	0.13	8.07	58	0.45	13.15	334	1.4
4813	0.03	2.3	4	1.1	0.4	111.5	<0.01	0.06	2.1	0.051	0.11	21.7	42	0.55	22.7	1155	2.5
4814	0.05	2.83	4.2	1.4	0.4	129	0.01	0.06	1.7	0.044	0.13	23.9	35	0.36	30.3	1525	2.4
4815	0.04	3.01	3.5	0.8	0.3	70.6	<0.01	0.04	2.6	0.041	0.14	8.69	53	0.49	14.45	394	1.3
4816	0.13	2.68	3.3	1.4	0.4	123.5	0.01	0.23	2	0.036	0.24	13.55	33	1.78	44.5	366	2
4817	0.09	2.47	2.1	1.6	0.2	137.5	<0.01	0.03	1	0.025	0.09	15.65	31	0.62	10	354	1.3
4818	0.05	2.89	4.1	1.2	0.3	84.9	<0.01	0.04	1.8	0.038	0.16	12.3	47	0.35	20.6	486	1.8
4876	0.03	3.03	3.2	0.6	0.6	73.9	0.01	0.04	6.8	0.051	0.14	19.1	55	1.44	18.85	81	1.3
4877	0.03	4.31	2.2	0.6	0.3	75.7	<0.01	0.06	5.4	0.038	0.08	14.85	51	1.51	12.6	66	0.7
4878	0.03	2.51	2.5	0.6	1.7	74.4	<0.01	0.05	4.1	0.042	0.1	14.4	47	1.76	14.95	77	0.8
4879	0.07	2.17	2.2	0.9	0.6	59.9	<0.01	0.03	14.7	0.044	0.07	7.84	68	0.8	11.7	65	1
4880	0.02	1.96	2.3	0.6	0.3	54	<0.01	0.03	8.6	0.042	0.08	8.27	45	2.74	11.4	58	1.1
4881	0.02	1.93	2	0.5	0.3	47	<0.01	0.02	22.3	0.049	0.07	7.26	94	6.04	10.15	54	1
4882	0.03	1.96	2.4	0.6	0.3	53.7	<0.01	0.03	11.7	0.045	0.08	9.41	64	2.41	12.95	62	1.2
4883	0.06	1.96	0.8	0.8	0.2	542	<0.01	0.02	0.7	0.016	0.05	7.3	12	0.18	9.65	87	1.5
4884	0.03	0.16	8.1	3.2	1	107.5	0.03	0.05	12.4	0.07	0.14	57.1	39	5.25	126	196	12.5
4885	0.01	0.11	4.5	0.8	0.5	61.3	0.01	0.03	5.6	0.064	0.1	8.96	37	3	28.1	92	4.9
4886	0.03	0.09	7.3	1.2	0.6	79.6	0.01	0.05	8.6	0.069	0.11	32.6	47	2.7	39	179	7
4887	0.05	0.1	2.5	0.9	0.4	75.4	0.01	0.03	2.9	0.044	0.11	15.6	38	1.8	18.4	67	1.1
4888	0.04	0.15	3.1	1	0.3	59.4	<0.01	0.05	2.2	0.043	0.1	12.55	45	1.92	13.85	558	1.8
4889	0.02	0.08	2.1	0.5	0.2	63.1	<0.01	0.05	5.7	0.03	0.07	8.37	41	1.77	16.35	93	1.4
4890	0.03	0.21	3.9	1.1	0.5	334	0.01	0.03	3.5	0.044	0.18	15.1	30	1.13	32.5	192	3.7
4891	0.12	0.3	4.2	2.5	0.6	191.5	0.01	0.09	1.5	0.051	0.34	24.9	51	0.91	40.4	1050	9.7
4892	0.04	0.12	3.1	1.1	0.4	115	<0.01	0.04	1.7	0.04	0.1	10.5	26	0.77	18.9	480	3.2
4893	0.04	0.16	7.4	1.8	0.8	439	0.02	0.05	6.6	0.073	0.14	61.9	40	0.78	74	475	12.1
4894	0.03	0.1	2.6	0.9	0.3	80.2	<0.01	0.05	3	0.034	0.09	9.53	36	0.69	20.8	304	1.8
4895	0.05	0.17	2.7	1.1	0.3	68.1	<0.01	0.05	1.6	0.035	0.09	12.45	35	0.81	13.55	418	1.4
4819	0.01	0.11	1.5	0.3	0.2	33.9	<0.01	0.03	4.3	0.027	0.05	4.54	39	0.32	5.71	170	0.8
4820	0.03	0.14	1.7	0.4	0.2	58.9	<0.01	0.04	3	0.026	0.06	14.8	49	0.34	7.76	173	1
4821	<0.01	0.06	1.7	<0.2	0.3	18.1	<0.01	0.01	1.5	0.055	0.09	0.82	22	0.12	2.55	79	1.5
4822	0.02	0.13	1.8	0.4	0.2	42.9	<0.01	0.04	4.2	0.027	0.07	5.53	30	0.27	7.87	230	1
4823	0.02	0.11	1.5	0.3	0.2	38.1	<0.01	0.04	10	0.029	0.06	6.67	60	0.65	6.64	161	0.7
4824	0.06	0.15	2.6	0.5	0.3	170	<0.01	0.04	3.1	0.035	0.11	32	28	0.15	21.3	228	1.5
4825	0.04	0.18	1.5	0.5	0.2	247	<0.01	0.04	1.2	0.03	0.08	9.93	22	0.1	24.9	122	1.5
4826	0.03	0.11	2.1	0.4	0.3	90.6	<0.01	0.03	2.1	0.032	0.09	9.22	32	0.17	13.05	203	1.3
4827	0.02	0.07	1.7	0.2	0.2	56.8	<0.01	0.03	4.4	0.026	0.07	7.11	18	0.1	8.48	148	1.1
4828	0.02	0.1	1.9	0.3	0.2	77.2	<0.01	0.03	2.8	0.026	0.08	9.79	19	0.25	12.05	209	1.2
4829	0.03	0.1	4.2	0.6	0.4	102.5	<0.01	0.03	4.1	0.039	0.12	17.4	23	0.11	28.4	85	3.2
4830	0.02	0.12	2	0.3	0.2	75.3	<0.01	0.02	3.1	0.028	0.09	9.07	19	0.13	12.2	201	1.4

SAMPLE NUMBER	Au-ST44 Au ppm	Au-OG44 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	ME-MS41 Cs ppm	ME-MS41 Cu ppm	ME-MS41 Fe %
4831	0.0011		0.53	0.8	0.9	<0.2	<10	200	0.3	0.41	0.5	0.3	17.8	2.4	7	0.78	20.4	1.74
4832	0.0006		0.12	1.45	0.6	<0.2	<10	210	0.35	0.12	0.19	0.17	15.3	3.1	5	0.93	11	1.18
4833	0.0005		0.09	0.83	0.3	<0.2	<10	350	0.2	0.11	0.26	0.32	7.36	2.1	5	0.95	3.7	1
4834	0.0987		0.62	0.88	0.9	<0.2	<10	230	0.3	0.5	0.5	0.32	18.6	2.3	7	0.81	20.5	1.61
4896	0.0023		0.56	0.57	1.1	<0.2	<10	150	0.22	0.62	0.39	0.35	17.25	2.7	8	0.83	19.6	1.73
4897	0.0015		0.63	0.59	1.2	<0.2	<10	150	0.2	0.65	0.35	0.35	15.75	2.7	8	0.88	18.2	1.59
4898	0.0018		0.42	0.3	0.7	<0.2	<10	70	0.15	0.38	1.1	0.95	9.81	1.3	13	0.51	25.7	0.78
4899	0.0004		0.11	0.19	0.4	<0.2	<10	80	0.09	0.36	0.51	0.14	10.15	1	5	0.41	10	0.73
4900	0.0076		0.07	0.6	0.8	<0.2	<10	190	0.17	0.37	0.27	0.53	9.92	1.9	4	0.94	5.3	0.99
4901	0.0011		0.38	1.05	1.3	<0.2	<10	230	0.3	0.44	0.27	0.73	11.4	2.3	6	0.94	7.8	1.16
4902	0.0004		0.14	1.08	1	<0.2	<10	400	0.31	0.34	0.38	1.38	11.55	2	4	1.05	6.5	1
4903	0.0011		0.97	3.32	1.4	<0.2	<10	540	1.73	0.54	1.18	0.29	91.3	4	12	2.24	41.3	2.45
4904	0.001		0.49	1.89	0.9	<0.2	<10	170	0.87	0.31	0.58	0.1	45.1	3.2	7	1.54	20.5	1.67
4905	0.0014		1.03	2.93	1.7	<0.2	<10	510	1.15	0.74	0.73	0.28	56.7	4.4	14	1.52	41.7	2.63
4906	0.0017		1.43	2.25	1.5	<0.2	<10	600	0.68	0.47	1.07	0.8	44.8	5.5	10	1.37	35	1.62
4907	0.001		0.19	0.33	0.4	<0.2	<10	80	0.13	0.28	0.16	0.13	11.1	1.4	4	0.42	7.7	0.88
4908	0.0065		0.64	0.79	0.8	<0.2	<10	200	0.33	0.43	0.36	0.16	21.9	2	6	0.68	19.9	1.28
4909	0.0014		1.49	0.7	1.2	<0.2	<10	180	0.38	0.68	0.43	0.87	16.4	2.1	7	0.78	65.4	1.26
4910	0.0022		3.37	3.36	6	<0.2	<10	1130	1.42	1.57	1.02	1.87	84.3	10.7	14	2.23	55.9	4.89
4911	0.0006		1.15	1.2	0.9	<0.2	<10	260	0.39	1.42	0.4	0.55	22.5	2.7	7	1.08	27.7	1.39
4835	0.0082		5.18	2.17	8.9	<0.2	<10	250	0.7	0.33	1.8	2.25	18.9	5.3	16	6.09	48.9	2.26
4836	0.0035		6.98	3.25	5.7	<0.2	<10	980	1.21	0.55	1.32	1.39	30.6	6.3	14	4.12	61.1	2.89
4837	0.0014		3.05	2.17	1.9	<0.2	<10	650	1.08	0.8	1.17	2.27	26.1	4.7	10	3.81	54.2	1.93
4838	0.0032		6.11	2.47	4.3	<0.2	<10	880	1.04	0.52	1.38	0.94	28.1	5.1	11	2.82	64.2	2.19
4839	0.0021		3.31	2.03	2.9	<0.2	<10	540	0.93	0.56	1	1.21	26.7	5.7	11	2.9	61.6	2.17
4840	0.0019		1.09	0.92	2.3	<0.2	<10	170	0.27	0.28	0.46	0.42	19.85	4.3	12	1.35	21.7	1.97
4841	0.0008		0.13	0.81	2	<0.2	<10	50	0.19	0.19	1.32	0.41	15.75	5.4	29	1.04	12.4	1.72
4842	0.0067		0.12	0.58	1	<0.2	<10	60	0.17	0.17	4.31	0.33	14.35	3.7	13	0.99	12.4	1.5
4843	0.0035		0.34	1.01	4	<0.2	<10	90	0.31	0.47	0.63	0.5	21.5	7.5	23	1.7	25.4	2.76
4844	0.0023		0.33	0.93	2.3	<0.2	<10	90	0.34	0.33	0.84	0.4	15.2	4.7	22	1.17	31	1.33
4845	0.004		0.32	0.93	2.2	<0.2	<10	90	0.29	0.23	2.09	0.52	13.15	3.1	27	0.84	45.6	0.94
4846	0.0021		3.02	1.89	5.2	<0.2	<10	360	0.54	1.88	0.78	1.42	26.2	6.7	17	2.23	60.1	2.63
4847	0.0202		2.25	1.49	4.7	<0.2	<10	270	0.46	0.59	0.63	1.13	25.3	6	15	1.95	47.6	2.46
4848	0.0103		3.14	1.88	4.9	<0.2	<10	250	0.54	0.48	0.72	0.74	23.2	6	18	2.13	37.9	2.44
4849	0.0145		0.9	1.08	3.4	<0.2	<10	150	0.25	0.29	0.65	0.37	21.6	5	18	1.5	19	2.66
4850	0.0071		1.8	1.35	4.1	<0.2	<10	200	0.37	0.39	0.64	0.68	20.9	5.6	17	1.85	30.8	2.54
4912	0.0034		4.69	2.21	6.9	<0.2	<10	300	0.78	0.38	1.16	1.4	23.2	5.2	15	4.2	54	1.92
4913	0.0026		4.72	2.1	8	<0.2	<10	860	0.85	0.57	1.22	2.5	30.2	9.5	12	3.03	61.4	2.67
4914	0.0285		1.69	1.21	3.1	<0.2	<10	270	0.35	0.4	0.47	0.63	21.9	5.8	20	1.68	28.4	3.36
4915	0.0066		3.76	2.28	5.8	<0.2	<10	360	0.81	0.55	0.59	0.35	39.6	6.4	19	2.36	62	3.12
4916	0.0025		2.96	1.62	3.8	<0.2	<10	410	0.45	0.74	0.69	1.45	24.4	5.3	16	1.77	49.1	2.47
4917	0.0019		2.91	1.59	4.3	<0.2	<10	350	0.47	0.59	0.59	0.65	21.9	5.7	14	1.99	36.9	2.21
4918	0.0022		2.56	1.48	3.7	<0.2	<10	380	0.42	0.7	0.61	1.07	23.4	5.8	17	1.79	43	2.65
4919	0.0195		1.96	1.24	3.1	<0.2	<10	280	0.36	0.44	0.55	0.66	19.6	5.2	15	1.64	31.4	2.49
4920	0.009		1.34	1.05	4.3	<0.2	<10	160	0.32	0.34	0.74	0.61	20.9	5.8	19	1.57	29.5	3.1
4921	0.0212		1.29	1.01	3.9	<0.2	<10	150	0.27	0.34	0.67	0.47	22.1	5.3	19	1.41	26.8	3.27
4922	0.0048		2.11	1.86	1.5	<0.2	<10	480	0.98	0.84	1.25	1.17	21.2	3.1	8	2.14	120.5	1.48
4923	0.0035		3.05	2.29	9	<0.2	<10	1400	0.61	0.75	0.93	2.4	42.5	9.7	15	2.08	48.3	3.82
4924	0.0023		3.94	1.91	4	<0.2	<10	450	0.61	1.19	0.67	1.72	26.8	5.3	15	1.82	71.2	2.23
4925	0.0039		5.78	2.51	6.1	<0.2	<10	830	0.83	1.72	0.73	4.88	38.4	7.8	17	2.56	117	3.13

	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re
NUMBER	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
4831	2.95	0.06	0.04	0.03	0.062	0.08	13.5	7.8	0.15	590	1.48	<0.01	0.59	3.9	510	8.6	11.3	0.001
4832	4.26	<0.05	0.13	0.02	0.015	0.05	7.5	8.1	0.12	752	0.36	0.02	1.05	4.7	650	5	5.9	<0.001
4833	3.53	<0.05	0.06	0.01	0.013	0.08	2.5	6.9	0.09	1450	1.32	0.01	0.61	3.6	510	4.3	9.5	<0.001
4834	3.09	<0.05	0.04	0.04	0.073	0.08	13.8	7.8	0.15	707	1.91	<0.01	0.56	4	540	9	11.1	<0.001
4896	2.45	0.05	0.03	0.02	0.066	0.07	11.2	5.1	0.16	668	3.69	<0.01	0.51	3.6	580	11.1	8.5	0.001
4897	2.41	<0.05	0.03	0.02	0.069	0.06	9.6	5.3	0.16	736	4.74	<0.01	0.48	3.7	560	12.1	8.6	0.001
4898	1.39	<0.05	0.03	0.02	0.044	0.05	6.2	3.1	0.1	137	4.87	<0.01	0.29	2.2	430	6.4	5.2	0.006
4899	0.98	<0.05	0.02	0.01	0.041	0.04	5.5	1.6	0.08	100	0.61	<0.01	0.25	1.7	570	4.7	3.7	0.001
4900	2.67	<0.05	<0.02	0.04	0.037	0.11	4.1	4.1	0.11	998	2.57	<0.01	0.45	2.3	290	13.9	13.5	<0.001
4901	3.93	<0.05	0.02	0.03	0.047	0.1	4.7	6.5	0.11	815	1.75	<0.01	0.67	3.8	1020	14.3	11.5	<0.001
4902	3.91	<0.05	0.02	0.04	0.146	0.08	4.3	5.7	0.1	1050	2.16	0.01	0.62	3.7	1620	11	10.2	0.001
4903	10.95	0.18	0.15	0.11	0.085	0.18	97.6	31.4	0.32	856	0.95	0.02	1.67	12.1	680	15.7	24.3	<0.001
4904	6.55	0.08	0.08	0.05	0.04	0.11	34.5	26.4	0.23	524	0.35	<0.01	1.16	5	540	10.2	18.9	<0.001
4905	8.9	0.08	0.22	0.06	0.105	0.14	32.6	25.4	0.28	818	0.85	0.02	1.39	11	420	13.2	22.5	<0.001
4906	6.95	0.08	0.2	0.11	0.089	0.09	30.8	16.2	0.19	1940	5.03	0.02	1.05	7.9	900	10.5	11.5	0.002
4907	1.39	<0.05	0.03	0.01	0.037	0.03	6	2.8	0.07	304	1.24	<0.01	0.32	1.9	380	5.7	4.8	<0.001
4908	2.76	0.05	0.06	0.02	0.065	0.06	17.9	5.6	0.11	309	0.81	<0.01	0.52	3.2	580	9.6	8.7	<0.001
4909	2.51	0.06	0.05	0.02	0.128	0.05	21.8	5.2	0.12	420	8.66	<0.01	0.42	4.2	720	11.1	6.4	0.002
4910	9.82	0.12	0.24	0.1	0.296	0.1	45.8	19.8	0.25	9190	48.6	0.03	1.05	13.5	1330	20.7	20.7	0.004
4911	3.73	0.05	0.05	0.03	0.157	0.06	15	9.1	0.13	972	8.41	0.04	0.61	4.3	480	11.4	10.9	0.001
4835	6.17	0.07	0.1	0.1	0.123	0.1	13.9	31.3	0.4	1085	1.81	0.05	0.85	13.1	1180	40.4	22.5	0.01
4836	8.9	0.08	0.15	0.1	0.083	0.12	24.8	32.7	0.34	1640	1.26	0.07	1.21	10.5	840	29.8	19.2	0.001
4837	6.22	0.09	0.06	0.1	0.237	0.09	26.7	18.4	0.24	1575	10.85	0.06	0.87	8.8	840	21.5	19.8	0.003
4838	7.36	0.1	0.11	0.14	0.096	0.11	32.6	21.8	0.28	1555	3.61	0.06	1.01	11.2	770	23.4	21.6	0.001
4839	6.07	0.09	0.07	0.08	0.169	0.08	27.8	17.7	0.27	1260	6.02	0.06	0.73	10.4	990	21.4	19.3	0.002
4840	3.57	0.06	0.03	0.03	0.056	0.11	13.1	9.7	0.29	532	1.27	0.04	0.82	5.9	630	16.7	14.5	<0.001
4841	3.45	0.08	0.05	0.01	0.017	0.09	8.4	9.4	0.4	228	1.37	0.04	0.76	5.8	1190	8.1	8.5	0.002
4842	2.6	0.06	0.03	0.02	0.028	0.08	7.9	6.8	0.27	316	0.36	0.04	0.61	4.4	780	6.6	8.3	0.001
4843	4.24	0.06	0.03	0.01	0.052	0.15	11.1	11.2	0.48	868	1.06	0.04	1.01	8.4	970	18.3	15.3	<0.001
4844	3.58	0.06	0.05	0.02	0.03	0.1	9	12.1	0.34	346	0.72	0.04	0.68	8	550	10.7	11	0.002
4845	3.2	0.07	0.07	0.05	0.019	0.06	10.9	10.7	0.23	229	1.14	0.05	0.59	6.6	880	6.8	5.8	0.004
4846	5.86	0.09	0.04	0.07	0.135	0.14	22	14	0.4	869	4.11	0.04	0.73	14.6	900	36.5	20.9	0.001
4847	4.99	0.08	0.03	0.05	0.11	0.13	18.7	12.7	0.34	882	3.9	0.04	0.65	12.6	780	33.1	19.3	0.001
4848	5.92	0.08	0.04	0.06	0.108	0.13	17.2	16.9	0.39	841	2.63	0.04	0.81	13.2	710	28.1	21.1	0.001
4849	3.8	0.06	0.03	0.05	0.053	0.1	12	11.7	0.34	632	1.02	0.04	0.63	7.2	860	24.8	15.9	<0.001
4850	4.64	0.08	0.03	0.05	0.094	0.12	14.4	12.8	0.37	737	1.81	0.04	0.66	9.9	770	26.3	19.2	0.001
4912	6.41	0.07	0.1	0.07	0.088	0.11	17	25.9	0.34	766	0.76	0.05	0.97	15.3	800	62.8	20.7	0.003
4913	6.57	0.1	0.08	0.12	0.161	0.1	27.2	19.3	0.31	6110	11.7	0.06	0.7	10.8	1180	29.1	16.8	0.007
4914	4.7	0.08	0.03	0.03	0.085	0.1	13.9	11.3	0.34	1005	3.09	0.04	0.69	8	570	21.5	15.8	0.001
4915	7.68	0.11	0.09	0.06	0.105	0.16	35.4	23	0.36	915	1.22	0.05	0.95	13.8	510	29	19.1	0.001
4916	5.09	0.07	0.04	0.07	0.15	0.09	17.1	12.9	0.3	1840	8.54	0.05	0.65	9.6	760	21.5	15.8	0.002
4917	5.07	0.07	0.04	0.05	0.115	0.13	16.3	12.7	0.34	806	1.45	0.04	0.7	10.1	530	33.5	18.7	<0.001
4918	4.81	0.07	0.04	0.05	0.13	0.1	16.6	12.3	0.32	1490	5.77	0.04	0.73	9.4	640	23.7	15.7	0.001
4919	4.31	0.07	0.04	0.04	0.088	0.1	14.3	11.6	0.31	906	2.8	0.04	0.67	8.1	580	20.9	15.9	0.001
4920	4.03	0.08	0.03	0.04	0.063	0.11	14	9.8	0.36	763	1.64	0.04	0.62	8.3	1070	25.3	13	0.001
4921	3.79	0.08	0.02	0.04	0.062	0.12	14.6	9.4	0.33	673	1.2	0.04	0.58	7.8	940	24.2	15.6	0.001
4922	5.3	0.11	0.14	0.08	0.057	0.09	39.1	16.4	0.21	455	0.39	0.06	0.87	7.8	670	11	14.7	0.001
4923	7.14	0.09	0.06	0.09	0.143	0.13	20.7	15.9	0.32	14550	49.9	0.07	0.68	19	1160	22	19.6	0.004
4924	5.7	0.08	0.06	0.06	0.203	0.08	23	14.3	0.26	1895	13.75	0.05	0.79	10	570	23.5	13.7	0.002
4925	7.34	0.11	0.07	0.09	0.391	0.1	34.8	16.7	0.29	5700	35.3	0.06	0.88	14.2	740	28.1	16.8	0.004

	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
NUMBER	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
4831	0.02	0.12	1.8	0.2	0.2	85.7	<0.01	0.03	3.3	0.031	0.07	15.45	33	0.12	10.7	147	1.2
4832	0.01	0.06	1.9	<0.2	0.4	20.5	<0.01	0.01	1.4	0.062	0.07	0.93	22	0.06	11.2	65	6.9
4833	<0.01	0.06	1.1	<0.2	0.4	31.9	<0.01	<0.01	1.1	0.056	0.06	0.24	22	0.05	1.3	241	2.2
4834	0.03	0.11	1.9	0.3	0.2	84.8	<0.01	0.02	2	0.03	0.08	13.75	30	0.13	11.65	162	1.2
4896	0.02	0.13	1.6	0.3	0.2	41.3	<0.01	0.04	2.2	0.028	0.07	5.91	37	0.33	7.67	202	0.9
4897	0.02	0.11	1.7	0.3	0.2	36.6	<0.01	0.04	3.2	0.028	0.06	5.29	34	0.35	6.9	216	0.9
4898	0.08	0.21	0.7	1.8	<0.2	157	<0.01	0.07	1.8	0.015	0.04	30.8	17	0.18	8.34	85	0.8
4899	0.02	0.08	0.7	0.5	<0.2	43.8	<0.01	0.04	1.6	0.01	0.03	5.19	16	0.31	3.04	48	0.5
4900	0.01	0.09	0.9	<0.2	0.3	18.1	<0.01	0.02	1.9	0.032	0.08	0.72	20	0.17	1.43	176	<0.5
4901	0.01	0.1	1.1	<0.2	0.4	36.9	<0.01	0.01	1.4	0.045	0.07	1.41	23	0.36	2.05	306	0.7
4902	0.02	0.09	1.1	<0.2	0.4	35.6	<0.01	0.01	0.5	0.047	0.07	0.55	19	0.11	2.4	473	0.9
4903	0.05	0.24	6.9	1.2	0.7	161	0.01	0.03	5.2	0.061	0.17	54.8	30	0.18	72.8	118	4.9
4904	0.03	0.11	4.3	0.5	0.4	73.5	<0.01	0.03	5.9	0.032	0.13	26.8	24	0.09	30.7	54	3
4905	0.03	0.11	7.4	0.6	0.6	110	<0.01	0.04	8.3	0.066	0.14	21.8	37	0.16	27.6	98	7.5
4906	0.14	0.21	4.1	0.9	0.5	164	<0.01	0.03	2.9	0.05	0.21	68.6	30	0.15	29.9	135	7.2
4907	<0.01	0.06	0.9	<0.2	<0.2	21.6	<0.01	0.02	1.7	0.017	0.04	2.33	18	0.13	3.73	67	0.8
4908	0.02	0.07	1.7	0.3	0.2	112.5	<0.01	0.02	4.5	0.025	0.06	10.4	22	0.16	15.3	93	1.9
4909	0.02	0.13	1.9	0.6	0.2	43.5	<0.01	0.03	1.6	0.025	0.05	14.15	22	0.21	23.6	301	1.1
4910	0.07	0.21	5.9	1.5	0.6	187.5	0.01	0.1	2.9	0.044	0.32	44.2	70	0.23	54.1	515	7.8
4911	0.04	0.13	2.3	0.5	0.3	55.7	<0.01	0.02	1.7	0.039	0.09	9.63	26	0.19	11.8	286	1.3
4835	0.13	0.36	3.5	3.6	0.5	182.5	0.01	0.04	0.5	0.063	0.15	16.45	46	0.21	17.45	973	3.3
4836	0.08	0.86	5.5	1.6	0.7	153.5	0.01	0.03	1.2	0.073	0.16	34.7	49	0.25	29.4	534	5.3
4837	0.09	0.31	3.9	1.9	0.5	140	0.01	0.03	1	0.05	0.16	20.8	34	0.16	35	1735	1.9
4838	0.09	0.72	4.6	1.9	0.5	127	0.01	0.04	1.2	0.049	0.18	22.7	43	0.28	42.2	363	3.2
4839	0.08	0.26	3.6	1.7	0.5	126.5	0.01	0.03	0.8	0.058	0.15	22.6	45	0.19	34.8	466	2
4840	0.03	0.17	3	0.6	0.3	41.6	<0.01	0.02	2	0.047	0.09	10.6	47	0.2	10.65	246	0.8
4841	0.09	0.13	2.6	3.4	0.2	49.2	<0.01	0.02	1.7	0.065	0.07	6.25	52	0.26	5.28	52	1.3
4842	0.05	0.13	2	1.1	0.2	66.8	<0.01	0.02	1.5	0.036	0.06	2.48	41	0.55	4.95	81	0.9
4843	0.04	0.2	3.6	0.5	0.3	31	<0.01	0.05	15.5	0.053	0.11	6.06	74	0.39	8.36	153	0.6
4844	0.09	0.18	2.3	2	0.2	45.8	<0.01	0.02	1.2	0.046	0.09	8.3	34	0.23	8.05	93	1.6
4845	0.21	0.31	1.7	4.1	0.3	93.6	<0.01	0.03	0.5	0.04	0.07	19.1	25	0.2	12.35	33	2.5
4846	0.06	0.27	4.9	1.5	0.4	76.8	<0.01	0.04	1.2	0.056	0.14	11.75	58	2.4	25.7	685	0.8
4847	0.05	0.27	4.1	1.2	0.3	58.4	<0.01	0.03	1.2	0.053	0.12	12.65	56	0.29	19.3	519	0.8
4848	0.05	0.22	5.2	1.3	0.4	61	<0.01	0.03	1.5	0.062	0.13	8.06	53	0.29	23.1	377	1.2
4849	0.04	0.16	3.3	1	0.3	37.5	<0.01	0.02	1.6	0.054	0.1	3.58	67	5.19	9.63	186	0.7
4850	0.05	0.22	4.1	1.1	0.3	46.3	<0.01	0.02	1.4	0.058	0.11	6.99	61	0.3	14.8	323	0.8
4912	0.09	0.28	4	2	0.5	130.5	<0.01	0.03	0.8	0.069	0.14	14.7	42	0.23	20.6	891	3.8
4913	0.15	0.85	4.5	3.1	0.5	100	0.01	0.04	1	0.048	0.22	46.6	47	1.95	36.6	983	2.3
4914	0.04	0.25	3.6	0.7	0.3	47.3	<0.01	0.02	1.9	0.066	0.1	10.2	89	0.33	12.45	408	1
4915	0.03	0.28	8.2	1.3	0.4	67.4	0.01	0.03	4.1	0.063	0.17	43	67	1.93	47.7	310	2.5
4916	0.06	0.32	4	1.1	0.4	71.4	<0.01	0.03	1.3	0.055	0.12	10.6	55	0.26	20.3	696	1.1
4917	0.04	0.26	4.4	0.8	0.3	81.7	<0.01	0.03	1.9	0.056	0.12	16.55	48	0.27	17.85	316	1.3
4918	0.05	0.31	4.1	1	0.4	62.7	<0.01	0.03	1.5	0.057	0.11	10.7	61	0.52	17.1	585	1
4919	0.04	0.24	3.7	1	0.3	56.2	<0.01	0.02	4.7	0.055	0.11	17.15	59	0.25	14.85	394	0.9
4920	0.06	0.26	3.9	1.4	0.3	48.6	<0.01	0.02	2	0.049	0.1	10.6	80	2.56	14.15	256	0.7
4921	0.05	0.2	3.4	0.9	0.3	44.5	<0.01	0.02	2.1	0.047	0.1	10.45	84	5.78	12.95	232	0.7
4922	0.1	0.21	3.3	1.5	0.4	508	0.01	0.02	1.9	0.052	0.12	44.1	26	0.14	48.1	629	5.2
4923	0.1	0.42	5.2	1.6	0.5	141	<0.01	0.06	1.2	0.06	0.3	12.65	59	0.42	25.1	803	2.2
4924	0.05	0.28	4.4	1.3	0.4	86.2	<0.01	0.05	1.5	0.059	0.13	16.05	46	0.29	27.3	821	1.7
4925	0.06	0.41	6	1.8	0.5	74.1	0.01	0.07	1.9	0.06	0.21	19.6	48	0.48	41.1	1890	1.9

	Au-ST44	Au-OG44	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	Au	Au	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe
NUMBER	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
4926	0.0028		10.2	3.28	3	<0.2	<10	630	1.43	7.3	0.87	8.14	65.5	5.9	9	3.18	261	2.37
4927	0.02		1.16	1	3.7	<0.2	<10	140	0.28	0.5	0.59	0.48	23.1	5.9	17	1.49	24.3	2.79
4928	0.0115		1.69	1.09	2.5	<0.2	<10	220	0.32	0.38	0.53	0.5	18.95	4.4	13	1.52	28	2.15
4929	0.0081		1.07	0.97	2	<0.2	<10	130	0.28	0.28	0.42	0.3	17.4	4.2	14	1.26	22.9	2.33
4851	0.0081		0.85	1.07	3.5	<0.2	<10	150	0.28	0.27	0.64	0.36	20.4	5.4	17	1.5	23.2	2.49
4852	0.0095		2.47	1.43	4.1	<0.2	<10	250	0.36	0.49	0.57	0.72	18.15	4.7	14	1.74	36.2	2
4853	0.0017		1.61	0.82	0.8	<0.2	<10	410	0.54	0.23	1.81	1.64	30.9	1.5	4	0.7	37.5	0.83
4854	0.0021		3.84	4.05	1.5	<0.2	<10	530	1.5	0.94	1.03	0.79	92	4.9	14	2.63	40.9	2.74
4855	0.0021		4.82	2.53	3.8	<0.2	<10	570	1.02	1.06	0.77	2.89	46	7.6	12	2.91	66.5	3.26
4856	0.0025		1.17	0.82	1.1	<0.2	<10	200	0.24	0.86	0.25	0.25	17.5	2.1	7	0.83	18	1.16
4857	0.0024		2.31	1.4	1.9	<0.2	<10	350	0.43	0.66	0.45	0.59	25.3	3.5	8	1.22	31.7	1.57
4858	0.0064		13.85	3.82	6.2	<0.2	<10	920	0.94	1.08	1.08	1.84	44.8	7.7	17	2.59	100	3.54
4859	0.0021		3.01	1.47	3	<0.2	<10	550	0.42	0.5	0.61	1.15	25.7	5.4	9	1.23	27.1	2.5
4860	0.0021		1.15	1.68	1	<0.2	<10	380	0.5	0.42	0.67	0.35	30.7	2.8	8	1.06	26	1.28
4861	0.0011		1.02	1.3	1.2	<0.2	<10	320	0.31	0.3	0.57	0.46	25.1	3.1	6	1.4	15.1	1.2
4862	0.0019		2.82	3.18	1.9	<0.2	<10	520	1.65	0.66	1.12	0.45	80.1	5	12	2.29	79.8	2.7
4863	0.0023		2.46	2.63	1.1	<0.2	<10	570	1.13	0.58	1.53	1.02	57.4	3.4	9	2.18	43.8	1.82
4864	0.0013		2.45	2.93	0.9	<0.2	<10	640	0.97	0.48	1.09	0.87	41.9	3.9	10	2.25	35.7	2.04
4865	0.0008		0.18	1.37	0.5	<0.2	<10	280	0.36	0.16	0.45	0.33	17.45	2.6	5	2.14	10.8	1.22
4866	0.0035		2.01	2.86	1	<0.2	<10	550	1.09	0.52	0.87	0.89	41.8	4.3	11	3.57	46.8	2.32
4867	0.0016		0.19	0.74	0.7	<0.2	<10	310	0.28	0.24	0.75	0.96	19.55	3.4	6	1.15	16.9	1.32
4868	0.0012		0.59	1.61	0.9	<0.2	<10	300	0.71	0.26	1.2	0.32	29.1	3.7	7	2.41	30.4	1.63
4869	0.0009		0.68	1.71	0.9	<0.2	<10	320	0.78	0.3	1.32	0.33	30.1	3.6	9	2.35	32.9	1.71
4870	0.0004		0.11	0.75	<0.1	<0.2	<10	90	0.26	0.08	0.88	0.19	17.65	3.3	4	2.02	9.5	1.46
4871	0.0018		0.14	0.79	0.2	<0.2	<10	100	0.26	0.1	0.59	0.21	17.95	3.6	7	1.67	14	1.94
4872	0.0032		0.16	0.77	1.8	<0.2	<10	120	0.2	0.34	0.24	0.4	18	4.5	9	1.2	19.6	1.59
4873	0.0056		0.52	1.31	2.5	<0.2	<10	250	0.48	0.69	0.59	0.45	20.7	4.8	13	2.37	29.1	2.11
4874	0.0913		0.23	0.72	1.5	<0.2	<10	160	0.25	0.43	0.28	0.3	19.1	4	8	1.51	13.1	1.57
4875	0.0031		0.43	0.85	2.2	<0.2	<10	200	0.31	0.42	0.95	0.43	13.1	3.9	9	1.63	21.2	1.54
4876	0.0008		0.19	0.57	0.8	<0.2	<10	80	0.13	0.09	0.65	0.21	10.2	2.7	18	0.57	7.3	0.83

	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re
NUMBER	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
4926	8.98	0.13	0.06	0.18	1.5	0.09	44.9	15.7	0.19	4180	74.5	0.05	0.81	11	1080	33.3	18.7	0.005
4927	3.95	0.08	0.02	0.03	0.064	0.13	13.3	9.4	0.34	693	1.75	0.04	0.66	7.7	1000	23.1	15.6	<0.001
4928	3.98	0.07	0.03	0.04	0.073	0.1	13.8	10.1	0.27	661	2.15	0.04	0.65	6.7	620	17	15.1	<0.001
4929	3.58	0.06	0.04	0.02	0.049	0.1	11.6	9	0.28	458	1.1	0.04	0.68	6.3	600	16.4	13	0.001
4851	3.81	0.06	0.03	0.04	0.052	0.11	11.6	11.1	0.35	732	1.12	0.04	0.61	7.3	760	26.4	16.8	<0.001
4852	4.42	0.05	0.04	0.02	0.088	0.11	14.5	11.9	0.33	649	2.28	<0.01	0.62	10.7	670	26.7	17.2	<0.001
4853	1.93	0.07	0.15	0.25	0.035	0.03	33.3	3.4	0.09	464	1.87	<0.01	0.42	3.7	1280	11.9	3.9	<0.001
4854	11.8	0.13	0.33	0.08	0.146	0.16	61.7	61.4	0.28	1175	1.03	0.01	2.09	10	640	30.8	28.1	<0.001
4855	8.3	0.11	0.11	0.07	0.183	0.22	47.9	24.1	0.41	1860	6.13	0.01	1.31	10.4	790	80.2	30.3	0.001
4856	2.77	<0.05	0.06	<0.01	0.067	0.04	11	9.2	0.13	405	1.01	<0.01	0.57	3.6	380	13.5	9.9	<0.001
4857	4.35	0.06	0.08	0.02	0.106	0.07	18.3	14.1	0.18	1125	1.87	<0.01	0.79	5.7	410	21.4	14.4	<0.001
4858	11.15	0.1	0.21	0.12	0.19	0.17	36.7	31.1	0.31	7110	5.1	0.02	1.42	23.7	1050	35.6	22.4	0.001
4859	4.51	0.07	0.07	0.03	0.092	0.07	21.8	15.2	0.17	3020	7.6	0.01	0.76	7.5	500	20.6	11.1	0.001
4860	4.7	0.06	0.1	0.05	0.064	0.07	25.4	15.1	0.16	521	1.47	0.01	0.91	5.3	650	10.3	11.2	<0.001
4861	4.02	<0.05	0.05	0.03	0.041	0.09	17.3	11.4	0.17	1390	1.32	<0.01	0.97	3.8	670	16	17.2	<0.001
4862	10.4	0.24	0.33	0.1	0.121	0.26	137.5	27.3	0.36	776	0.72	0.02	1.87	14.8	610	23.1	31.1	0.001
4863	7.9	0.16	0.2	0.12	0.093	0.17	84.6	25.1	0.28	627	0.85	0.01	1.55	8.4	800	23.4	22.8	<0.001
4864	8.48	0.12	0.16	0.08	0.084	0.19	52.2	29.2	0.3	844	0.62	0.02	1.62	8.5	620	22.5	29.3	<0.001
4865	4.53	<0.05	0.07	<0.01	0.022	0.15	16.5	16.7	0.14	533	0.65	0.01	1.2	4.2	900	12.1	12.2	<0.001
4866	8.68	0.11	0.22	0.05	0.097	0.22	57.2	25	0.33	617	0.69	0.02	1.74	9.1	510	28.8	32.7	<0.001
4867	3.01	0.05	0.03	0.01	0.03	0.19	12.3	7.4	0.22	1010	0.72	<0.01	0.82	4.3	560	12.7	15.1	<0.001
4868	5.62	0.11	0.07	0.05	0.039	0.18	55.2	21.7	0.36	824	0.53	<0.01	1.27	8.3	900	10.4	17.5	<0.001
4869	5.87	0.11	0.08	0.07	0.043	0.2	60.3	22.3	0.34	820	0.7	<0.01	1.21	9.9	930	11	18.3	<0.001
4870	3.29	0.05	0.03	<0.01	0.028	0.11	12.8	13.6	0.3	353	0.17	<0.01	0.84	3.4	550	4.5	13.1	<0.001
4871	3.56	0.06	0.03	<0.01	0.015	0.13	13.1	14.1	0.28	490	0.36	<0.01	1	5	680	5.8	14.7	<0.001
4872	3.19	<0.05	0.02	<0.01	0.033	0.15	8.6	7.9	0.29	803	1.76	<0.01	0.65	4.9	550	18.7	13.9	<0.001
4873	4.29	<0.05	0.04	0.01	0.064	0.17	14.5	15.9	0.33	959	1.49	<0.01	0.67	6.8	650	18.6	20.5	<0.001
4874	2.8	<0.05	0.03	<0.01	0.036	0.1	10	8.6	0.24	750	1.04	<0.01	0.53	4.5	500	13.5	14.8	<0.001
4875	2.98	<0.05	0.03	0.02	0.043	0.12	9.1	10.3	0.29	1490	1.41	<0.01	0.44	4.7	710	12.4	13.4	0.001
4876	2.16	<0.05	0.05	<0.01	0.012	0.05	6	7.6	0.21	192	0.61	<0.01	0.38	3.7	560	4.8	4.3	0.002

Appendix III: ALS Chemex laboratory certificates.

ALS Chemex
EXCELLENCE IN ANALYTICAL CHEMISTRY
ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1
Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

To: **ALMADEN MINERALS LTD.**
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 25-JUL-2008
Account: PFM

CERTIFICATE VA08084943

Project: ML

P.O. No.:

This report is for 38 Sediment samples submitted to our lab in Vancouver, BC, Canada on 23-JUN-2008.

The following have access to data associated with this certificate:

MORGAN POLIQUIN

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41d	Screen to -100um, save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-ST44	Super Trace Au - 50g AR	VARIABLE
Au-OG44	Ore Grade Au - 50g AR	ICP-MS
ME-MS41	51 anal. aqua regia ICPMS	

To: **ALMADEN MINERALS LTD.**
ATTN: MORGAN POLIQUIN
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Chemex

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Finalized Date: 25-JUL-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08084943

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST44 Au ppm 0.0001	Au-OG44 Au ppm 0.01	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1
4801		2.56	>0.1000	0.13	0.29	1.52	8.5	<0.2	<10	220	0.57	0.56	0.64	0.77	46.4	12.7
4802		3.08	0.0280		0.19	0.95	2.3	<0.2	<10	170	0.63	1.13	0.6	0.19	53.8	5.2
4803		2.10	0.0044		0.31	0.69	2.2	<0.2	<10	90	0.24	0.7	0.73	0.85	17.55	4
4804		3.06	0.0010		0.22	1.61	2.9	<0.2	<10	310	1.03	0.95	0.65	0.18	100.5	6.5
4805		2.90	0.0007		0.26	1.26	3.2	<0.2	<10	190	0.78	0.82	0.87	0.28	66.7	6
4806		2.66	0.0045		0.21	1.11	2.6	<0.2	<10	170	0.66	0.8	0.75	0.22	59.6	5.3
4807		1.94	0.0005		0.16	1.02	1.6	<0.2	<10	200	0.74	0.28	0.57	0.16	46.8	3.5
4808		2.78	0.0010		0.18	1.14	2.1	<0.2	<10	220	0.7	5.72	0.46	0.12	67.8	4.8
4809		2.66	0.0048		0.2	1.32	2.4	<0.2	<10	270	0.87	0.26	0.56	0.16	81.2	5.4
4810		2.76	0.0057		0.49	0.69	3	<0.2	<10	80	0.24	0.67	0.79	0.45	18.7	4.4
4811		2.72	0.0014		0.56	1.24	5.9	<0.2	<10	150	0.42	1.12	1.1	1.13	26.8	8.7
4812		3.02	0.0146		1.7	1.22	3.1	<0.2	<10	340	0.38	1.61	0.72	0.61	24.4	6.1
4813		2.34	0.0330		2.77	1.75	2.2	<0.2	<10	340	0.61	2.44	0.81	1.65	26.3	5.2
4814		2.42	0.0022		3.94	2.03	2.5	<0.2	<10	430	0.72	2.9	0.98	2.21	27.1	4.7
4815		2.58	0.0019		1.93	1.26	3.6	<0.2	<10	390	0.4	0.81	0.78	0.85	25.7	6.5
4816		1.74	0.0011		2.61	1.84	3.7	<0.2	<10	830	0.76	2.27	1.15	1.02	58.2	20.2
4817		2.30	0.0086		1.73	0.83	2.1	<0.2	<10	360	0.36	0.59	1.69	1.04	18.45	5.4
4818		2.62	0.0040		2.85	1.54	4.7	<0.2	<10	460	0.54	0.89	0.91	1.15	26.7	7
4876		2.10	0.0025		0.13	1.36	1.9	<0.2	<10	210	0.85	0.58	0.5	0.14	52.2	5.9
4877		2.42	0.0036		0.16	0.88	2	<0.2	<10	170	0.63	0.49	0.49	0.16	46.5	4.3
4878		2.28	0.0045		0.16	1.13	1.9	<0.2	<10	180	0.72	0.55	0.5	0.15	46.6	4.5
4879		3.40	0.0020		0.14	0.74	1.9	<0.2	<10	110	0.42	0.51	0.58	0.2	49.3	4.5
4880		3.08	0.0008		0.14	0.77	1.6	<0.2	<10	110	0.44	0.42	0.46	0.13	37.5	3.9
4881		2.88	0.0207		0.11	0.62	1.3	<0.2	<10	80	0.31	0.48	0.44	0.11	41.2	4.3
4882		2.70	0.0071		0.16	0.8	1.6	<0.2	<10	110	0.46	0.77	0.49	0.15	44.8	4.4
4883		1.34	0.0016		0.24	0.46	<2	<0.2	<10	220	0.13	0.27	20.9	0.74	9.85	2.3
4884		2.36	0.0026		1.84	3.56	4.4	<0.2	<10	350	1.99	1.61	1.03	0.56	88.6	6.3
4885		1.38	0.0061		0.24	1.54	2.7	<0.2	<10	180	0.73	0.56	0.54	0.18	44.9	5.5
4886		2.00	0.0014		0.49	2.35	2.3	<0.2	<10	310	1.81	0.72	0.52	0.14	105	5.9
4887		1.48	0.0003		0.16	1.22	1.6	<0.2	<10	190	0.83	0.42	0.57	0.14	52.2	4.5
4888		2.90	0.0024		1.66	1.22	2.5	<0.2	<10	280	0.39	1.26	0.59	0.89	25.2	5.3
4889		2.42	0.0399		0.45	0.61	0.9	<0.2	<10	110	0.25	0.54	0.34	0.14	23	3.1
4890		1.64	0.0031		1.71	2.05	2.1	<0.2	<10	380	0.72	0.49	0.92	0.43	25.9	4.4
4891		1.92	0.0046		6.6	2.88	5	<0.2	<10	1290	1.12	2.13	1.38	4.07	49.7	16.9
4892		2.14	0.0035		2.02	1.77	1.5	<0.2	<10	370	0.61	1.34	0.8	0.95	23.3	4.1
4893		2.04	0.0033		3.51	3.77	2.8	<0.2	<10	500	1.52	1.72	1.03	0.75	64.3	5.6
4894		2.80	0.0027		1.08	1.03	1.2	<0.2	<10	210	0.42	0.82	0.54	0.47	23.8	3.6
4895		2.36	0.0027		1.54	1.04	1.8	<0.2	<10	240	0.36	0.94	0.66	0.72	22.6	4.4

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

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To: **ALMADEN MINERALS LTD.**
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 25-JUL-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08084943

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
4801		31	1.37	40.1	4.72	6.34	0.21	0.07	0.04	0.047	0.19	48.3	12.9	0.37	1530	1.41
4802		16	0.87	19.2	3.16	5	0.15	0.04	0.02	0.042	0.09	40	9	0.22	396	2.25
4803		14	0.92	25.5	1.5	2.83	0.07	0.03	0.02	0.033	0.08	10.8	7.1	0.25	341	1.23
4804		15	1.12	21.6	3.04	6.61	0.21	0.04	0.04	0.046	0.13	65.2	14.2	0.31	614	2.98
4805		21	1.05	23.4	2.32	5.53	0.18	0.05	0.03	0.043	0.12	54.8	14	0.33	404	2.49
4806		15	0.92	19.2	2.19	4.97	0.16	0.04	0.03	0.036	0.1	48.6	12.1	0.29	385	2.13
4807		10	0.9	15.6	1.73	4.11	0.14	0.02	0.04	0.025	0.08	40.4	9.3	0.16	261	2.43
4808		11	0.92	11.6	2.09	4.72	0.17	0.03	0.03	0.019	0.08	49.3	10.5	0.22	437	2.13
4809		14	1.01	13.5	2.32	5.3	0.2	0.03	0.03	0.022	0.09	61.2	12.1	0.25	542	2.78
4810		14	0.91	46.6	1.72	2.99	0.08	0.04	0.02	0.034	0.09	13.7	7.9	0.25	238	2.47
4811		19	1.59	74.7	2.55	5.01	0.1	0.04	0.04	0.061	0.19	18	13.6	0.48	876	3.06
4812		15	1.67	26.9	2.68	4.57	0.08	0.04	0.03	0.094	0.11	15.6	10.2	0.31	1565	5.28
4813		13	1.41	83.7	2.29	5.54	0.1	0.06	0.06	0.431	0.09	22.4	12.5	0.23	1230	26.6
4814		12	1.56	105.5	2.13	5.92	0.1	0.06	0.07	0.577	0.09	26.6	13.1	0.23	1490	25.7
4815		13	1.86	28.5	2.57	4.68	0.09	0.04	0.05	0.1	0.12	16.6	10.3	0.32	2180	4.76
4816		8	1.55	126.5	5.22	6.47	0.2	0.07	0.11	0.111	0.14	58.1	13.2	0.2	19100	18.95
4817		10	1.52	82.4	1.72	3.16	0.06	0.04	0.06	0.093	0.11	11.7	6.8	0.28	1535	1.75
4818		13	2.25	39.1	2.49	5.38	0.1	0.05	0.08	0.125	0.13	21	12.6	0.33	2820	9.47
4876		14	1.2	19.6	2.54	5.61	0.13	0.04	0.04	0.042	0.08	36.6	11.3	0.21	568	2.78
4877		12	0.83	14.6	2.13	3.95	0.12	0.03	0.03	0.04	0.07	33.6	8.4	0.18	326	3.57
4878		24	0.98	25.3	2.12	4.65	0.11	0.03	0.04	0.038	0.08	34.5	10.1	0.19	349	2.9
4879		30	0.72	20	2.91	4.38	0.14	0.03	0.02	0.029	0.07	39.5	8.1	0.2	260	2.7
4880		13	0.77	13.9	1.88	3.69	0.1	0.04	0.02	0.028	0.07	28.1	8.4	0.19	275	1.38
4881		19	0.64	11.1	3.35	4.21	0.11	0.03	0.02	0.025	0.06	28.6	6.5	0.17	248	1.36
4882		16	0.82	16.1	2.46	4.26	0.12	0.04	0.02	0.03	0.07	34	8.7	0.19	297	1.45
4883		7	0.68	33.7	0.62	1.63	<0.05	0.04	0.04	0.03	0.09	7.2	3.4	0.15	401	0.79
4884		29	3.12	168	2.95	12.05	0.29	0.5	0.08	0.123	0.21	141	37.1	0.34	716	0.95
4885		21	1.04	38	2.07	5.55	0.1	0.15	0.02	0.037	0.13	40.5	14.7	0.22	529	0.86
4886		18	1.24	64.8	2.28	8.88	0.17	0.22	0.06	0.068	0.1	91.1	16.4	0.23	359	1.14
4887		12	1.13	21	1.78	4.51	0.08	0.05	0.05	0.031	0.08	34.9	10.6	0.18	510	2.49
4888		16	1.39	47.3	2.24	4.2	0.06	0.06	0.04	0.18	0.09	16.8	10.5	0.26	1130	11.05
4889		11	0.74	23.1	1.9	2.62	0.06	0.06	0.02	0.059	0.07	19.2	6.1	0.14	247	1.36
4890		17	1.63	53.5	2.09	6.28	0.08	0.13	0.05	0.068	0.17	32.8	31.3	0.3	580	1.47
4891		14	1.77	128.5	3.41	8.07	0.1	0.3	0.15	0.444	0.09	32.8	15.2	0.18	11700	190
4892		10	1.14	57.8	1.7	5.34	0.05	0.1	0.05	0.273	0.09	19.7	12.8	0.21	841	11.9
4893		17	2.06	133	2.87	11.2	0.14	0.4	0.06	0.257	0.16	67.2	42	0.31	942	9.2
4894		12	1.07	41.2	1.92	3.73	0.06	0.07	0.04	0.133	0.1	21.9	9.8	0.18	540	3.99
4895		11	1.23	39.2	1.78	3.68	0.05	0.05	0.04	0.131	0.1	16	9.5	0.23	915	6.69

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

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To: **ALMADEN MINERALS LTD.**
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 25-JUL-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08084943

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
4801		0.02	1.18	15.5	1010	16.1	16.2	0.001	0.03	126	4.6	1.1	0.4	52.5	0.01	0.05
4802		<0.01	1.09	6.2	860	10.5	13.5	0.001	0.04	39.7	2.7	0.8	0.4	68.5	<0.01	0.05
4803		0.01	0.66	6.6	790	7.7	10.2	0.002	0.09	10.25	2.4	1.1	0.3	58.5	<0.01	0.02
4804		0.01	1.13	8.4	890	13.8	17.6	0.001	0.04	6.21	3.7	0.9	0.4	147	<0.01	0.08
4805		0.01	1.1	11.5	910	13.5	15.2	0.002	0.08	5.29	3.3	1.4	0.4	103	<0.01	0.06
4806		0.01	1.02	7.5	890	11.2	13.6	0.002	0.06	3.35	2.9	1.1	1.2	87.2	<0.01	0.07
4807		<0.01	0.91	5.2	740	9.8	13.1	0.001	0.04	3.51	2	0.6	0.3	88	<0.01	0.02
4808		<0.01	0.92	6.1	820	9.7	13.4	0.001	0.02	4.81	2.5	0.6	0.3	102	<0.01	0.02
4809		<0.01	0.97	8	840	10.9	15.1	0.001	0.03	4.49	2.9	0.7	0.4	129	<0.01	0.02
4810		0.01	0.65	6.7	780	8.7	11.1	0.003	0.06	3.85	2.4	0.9	0.3	75.9	<0.01	0.03
4811		0.02	1.06	12.5	1000	16.6	17.3	0.002	0.07	4.4	3.9	1.9	0.4	98.8	<0.01	0.07
4812		0.01	0.69	8.2	950	27	14.8	0.001	0.04	2.43	3.5	0.8	0.3	66.7	<0.01	0.04
4813		0.01	0.93	8.4	530	16.8	16.7	0.005	0.03	2.3	4	1.1	0.4	111.5	<0.01	0.06
4814		0.01	0.95	8.8	590	19.5	17	0.004	0.05	2.83	4.2	1.4	0.4	129	0.01	0.06
4815		<0.01	0.67	8.3	1040	30.4	18.6	0.001	0.04	3.01	3.5	0.8	0.3	70.6	<0.01	0.04
4816		0.01	0.84	21.1	1000	14.1	18.3	0.002	0.13	2.68	3.3	1.4	0.4	123.5	0.01	0.23
4817		0.01	0.48	6.1	900	30.6	15.6	0.001	0.09	2.47	2.1	1.6	0.2	137.5	<0.01	0.03
4818		<0.01	0.69	9.7	1030	35.7	16.9	0.002	0.05	2.89	4.1	1.2	0.3	84.9	<0.01	0.04
4876		<0.01	1.47	7.5	620	13.4	16.5	0.001	0.03	3.03	3.2	0.6	0.6	73.9	0.01	0.04
4877		<0.01	0.89	6	670	10.3	12.6	0.001	0.03	4.31	2.2	0.6	0.3	75.7	<0.01	0.06
4878		<0.01	1.07	14.4	690	12.2	15.7	0.001	0.03	2.51	2.5	0.6	1.7	74.4	<0.01	0.05
4879		<0.01	0.93	16	1030	8.2	11.9	0.002	0.07	2.17	2.2	0.9	0.6	59.9	<0.01	0.03
4880		<0.01	0.97	6	730	7.9	11.8	0.001	0.02	1.96	2.3	0.6	0.3	54	<0.01	0.03
4881		<0.01	0.91	5.7	910	6.7	9.4	0.001	0.02	1.93	2	0.5	0.3	47	<0.01	0.02
4882		<0.01	0.99	7.1	780	8.7	12.2	0.001	0.03	1.96	2.4	0.6	0.3	53.7	<0.01	0.03
4883		<0.01	0.48	4	790	6.4	8.6	0.001	0.06	1.96	0.8	0.8	0.2	542	<0.01	0.02
4884		0.03	2.28	22.1	440	16.6	27.3	0.001	0.03	0.16	8.1	3.2	1	107.5	0.03	0.05
4885		0.02	1.46	15.9	470	12.3	13.5	<0.001	0.01	0.11	4.5	0.8	0.5	61.3	0.01	0.03
4886		0.02	1.87	14.7	360	18	18	<0.001	0.03	0.09	7.3	1.2	0.6	79.6	0.01	0.05
4887		0.02	1.24	7.9	610	11.2	13.7	0.001	0.05	0.1	2.5	0.9	0.4	75.4	0.01	0.03
4888		0.02	0.77	10.4	710	20	13.8	0.002	0.04	0.15	3.1	1	0.3	59.4	<0.01	0.05
4889		0.01	0.73	5.3	570	7.6	9.1	<0.001	0.02	0.08	2.1	0.5	0.2	63.1	<0.01	0.05
4890		0.02	1.16	13.3	350	13.3	26.5	<0.001	0.03	0.21	3.9	1.1	0.5	334	0.01	0.03
4891		0.03	1.18	14.3	1320	17.2	12.5	0.011	0.12	0.3	4.2	2.5	0.6	191.5	0.01	0.09
4892		0.02	0.95	7.7	480	17.5	14.5	0.001	0.04	0.12	3.1	1.1	0.4	115	<0.01	0.04
4893		0.03	2.16	15.6	450	24.2	25.7	0.001	0.04	0.16	7.4	1.8	0.8	439	0.02	0.05
4894		0.01	0.81	7.2	550	13.9	12.9	<0.001	0.03	0.1	2.6	0.9	0.3	80.2	<0.01	0.05
4895		0.02	0.68	6.5	740	16.3	13.1	0.001	0.05	0.17	2.7	1.1	0.3	68.1	<0.01	0.05

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

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To: **ALMADEN MINERALS LTD.**
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 25-JUL-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08084943

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Th	Ti	Tl	U	V	W	Y	Zn	Zr
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.2	0.005	0.02	0.05	1	0.05	0.05	2	0.5
4801		7.7	0.076	0.15	6.64	135	5.52	37.2	148	2.1
4802		12.6	0.049	0.09	14	79	3.48	14.65	77	1.1
4803		6.7	0.041	0.07	4.39	38	0.86	10.95	89	1.3
4804		9.5	0.05	0.13	19.75	64	0.8	19.4	83	1.1
4805		5.9	0.049	0.11	14.15	52	0.6	18	89	1.4
4806		5.7	0.045	0.1	11.9	49	1.14	15.5	78	1.2
4807		3.5	0.036	0.08	15.65	39	1.7	13.8	63	0.5
4808		8.3	0.044	0.1	15.1	50	0.85	13.05	51	0.7
4809		5.6	0.047	0.11	17.4	53	0.6	16.45	60	0.8
4810		1.8	0.041	0.07	10.6	47	0.92	13.95	64	1.1
4811		2.9	0.062	0.15	7.04	63	0.87	17.85	144	1.4
4812		2.3	0.042	0.13	8.07	58	0.45	13.15	334	1.4
4813		2.1	0.051	0.11	21.7	42	0.55	22.7	1155	2.5
4814		1.7	0.044	0.13	23.9	35	0.36	30.3	1525	2.4
4815		2.6	0.041	0.14	8.69	53	0.49	14.45	394	1.3
4816		2	0.036	0.24	13.55	33	1.78	44.5	366	2
4817		1	0.025	0.09	15.65	31	0.62	10	354	1.3
4818		1.8	0.038	0.16	12.3	47	0.35	20.6	486	1.8
4876		6.8	0.051	0.14	19.1	55	1.44	18.85	81	1.3
4877		5.4	0.038	0.08	14.85	51	1.51	12.6	66	0.7
4878		4.1	0.042	0.1	14.4	47	1.76	14.95	77	0.8
4879		14.7	0.044	0.07	7.84	68	0.8	11.7	65	1
4880		8.6	0.042	0.08	8.27	45	2.74	11.4	58	1.1
4881		22.3	0.049	0.07	7.26	94	6.04	10.15	54	1
4882		11.7	0.045	0.08	9.41	64	2.41	12.95	62	1.2
4883		0.7	0.016	0.05	7.3	12	0.18	9.65	87	1.5
4884		12.4	0.07	0.14	57.1	39	5.25	126	196	12.5
4885		5.6	0.064	0.1	8.96	37	3	28.1	92	4.9
4886		8.6	0.069	0.11	32.6	47	2.7	39	179	7
4887		2.9	0.044	0.11	15.6	38	1.8	18.4	67	1.1
4888		2.2	0.043	0.1	12.55	45	1.92	13.85	558	1.8
4889		5.7	0.03	0.07	8.37	41	1.77	16.35	93	1.4
4890		3.5	0.044	0.18	15.1	30	1.13	32.5	192	3.7
4891		1.5	0.051	0.34	24.9	51	0.91	40.4	1050	9.7
4892		1.7	0.04	0.1	10.5	26	0.77	18.9	480	3.2
4893		6.6	0.073	0.14	61.9	40	0.78	74	475	12.1
4894		3	0.034	0.09	9.53	36	0.69	20.8	304	1.8
4895		1.6	0.035	0.09	12.45	35	0.81	13.55	418	1.4

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

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To: **ALMADEN MINERALS LTD.**
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 25-JUL-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08084943

Method	CERTIFICATE COMMENTS
ME-MS41	Interference: Ca>10% on ICP-MS As,ICP-AES results shown.
ME-MS41	Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g).

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To: ALMADEN MINERALS LTD.
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

CERTIFICATE VA08089953

Project: ML

P.O. No.:

This report is for 92 Sediment samples submitted to our lab in Vancouver, BC, Canada on 3-JUL-2008.

The following have access to data associated with this certificate:

MORGAN POLIQUIN		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-ST44	Super Trace Au - 50g AR	VARIABLE
Au-OG44	Ore Grade Au - 50g AR	ICP-MS
ME-MS41	51 anal. aqua regia ICPMS	

To: ALMADEN MINERALS LTD.
ATTN: MORGAN POLIQUIN
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

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

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST44 Au ppm 0.0001	Au-OG44 Au ppm 0.01	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1
4819		2.74	0.0021		0.51	0.5	1.7	<0.2	<10	120	0.18	0.52	0.31	0.26	14.05	2.5
4820		2.68	0.0011		0.59	0.52	1.2	<0.2	<10	130	0.22	0.6	0.46	0.35	16.9	2.8
4821		1.96	0.0003		0.08	0.98	0.7	<0.2	<10	170	0.27	0.28	0.14	0.08	13.35	2.8
4822		3.12	0.0012		0.67	0.61	1.3	<0.2	<10	160	0.25	0.69	0.39	0.41	15.4	2.8
4823		2.66	0.0161		0.44	0.5	0.9	<0.2	<10	110	0.2	3.02	0.35	0.25	16.25	2.8
4824		2.16	0.0032		0.94	1.29	1.1	<0.2	<10	330	0.49	0.61	0.91	0.49	26.1	3.1
4825		1.72	0.0014		0.45	0.76	0.9	<0.2	<10	320	0.41	0.25	0.87	0.45	15.1	2.8
4826		2.12	>0.1000	0.10	0.78	1	1	<0.2	<10	250	0.36	0.56	0.52	0.42	21.2	2.4
4827		2.62	0.0009		0.55	0.78	0.6	<0.2	<10	190	0.29	0.47	0.34	0.27	14.8	1.9
4828		2.74	0.0012		0.87	0.97	1	<0.2	<10	240	0.33	0.65	0.47	0.5	18.55	2.4
4829		1.90	0.0013		0.88	1.71	1	<0.2	<10	370	0.75	0.51	0.74	0.24	38.5	2.7
4830		2.56	0.0304		0.78	0.95	0.8	<0.2	<10	250	0.36	0.62	0.44	0.43	19.85	2.3
4831		2.60	0.0011		0.53	0.8	0.9	<0.2	<10	200	0.3	0.41	0.5	0.3	17.8	2.4
4832		1.54	0.0006		0.12	1.45	0.6	<0.2	<10	210	0.35	0.12	0.19	0.17	15.3	3.1
4833		1.22	0.0005		0.09	0.83	0.3	<0.2	<10	350	0.2	0.11	0.26	0.32	7.36	2.1
4834		2.12	0.0987		0.62	0.88	0.9	<0.2	<10	230	0.3	0.5	0.5	0.32	18.6	2.3
4896		2.66	0.0023		0.56	0.57	1.1	<0.2	<10	150	0.22	0.62	0.39	0.35	17.25	2.7
4897		2.60	0.0015		0.63	0.59	1.2	<0.2	<10	150	0.2	0.65	0.35	0.35	15.75	2.7
4898		1.78	0.0018		0.42	0.3	0.7	<0.2	<10	70	0.15	0.38	1.1	0.95	9.81	1.3
4899		1.88	0.0004		0.11	0.19	0.4	<0.2	<10	80	0.09	0.36	0.51	0.14	10.15	1
4900		1.44	0.0076		0.07	0.6	0.8	<0.2	<10	190	0.17	0.37	0.27	0.53	9.92	1.9
4901		1.62	0.0011		0.38	1.05	1.3	<0.2	<10	230	0.3	0.44	0.27	0.73	11.4	2.3
4902		1.32	0.0004		0.14	1.08	1	<0.2	<10	400	0.31	0.34	0.38	1.38	11.55	2
4903		1.70	0.0011		0.97	3.32	1.4	<0.2	<10	540	1.73	0.54	1.18	0.29	91.3	4
4904		2.54	0.0010		0.49	1.89	0.9	<0.2	<10	170	0.87	0.31	0.58	0.1	45.1	3.2
4905		2.54	0.0014		1.03	2.93	1.7	<0.2	<10	510	1.15	0.74	0.73	0.28	56.7	4.4
4906		1.90	0.0017		1.43	2.25	1.5	<0.2	<10	600	0.68	0.47	1.07	0.8	44.8	5.5
4907		3.22	0.0010		0.19	0.33	0.4	<0.2	<10	80	0.13	0.28	0.16	0.13	11.1	1.4
4908		3.04	0.0065		0.64	0.79	0.8	<0.2	<10	200	0.33	0.43	0.36	0.16	21.9	2
4909		2.56	0.0014		1.49	0.7	1.2	<0.2	<10	180	0.38	0.68	0.43	0.87	16.4	2.1
4910		1.50	0.0022		3.37	3.36	6	<0.2	<10	1130	1.42	1.57	1.02	1.87	84.3	10.7
4911		2.42	0.0006		1.15	1.2	0.9	<0.2	<10	260	0.39	1.42	0.4	0.55	22.5	2.7
4835		1.82	0.0082		5.18	2.17	8.9	<0.2	<10	250	0.7	0.33	1.8	2.25	18.9	5.3
4836		2.04	0.0035		6.98	3.25	5.7	<0.2	<10	980	1.21	0.55	1.32	1.39	30.6	6.3
4837		1.88	0.0014		3.05	2.17	1.9	<0.2	<10	650	1.08	0.8	1.17	2.27	26.1	4.7
4838		1.68	0.0032		6.11	2.47	4.3	<0.2	<10	880	1.04	0.52	1.38	0.94	28.1	5.1
4839		2.00	0.0021		3.31	2.03	2.9	<0.2	<10	540	0.93	0.56	1	1.21	26.7	5.7
4840		2.78	0.0019		1.09	0.92	2.3	<0.2	<10	170	0.27	0.28	0.46	0.42	19.85	4.3
4841		3.22	0.0008		0.13	0.81	2	<0.2	<10	50	0.19	0.19	1.32	0.41	15.75	5.4
4842		2.44	0.0067		0.12	0.58	1	<0.2	<10	60	0.17	0.17	4.31	0.33	14.35	3.7

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

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1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
4819		9	0.75	18.1	1.72	2.24	<0.05	0.03	0.02	0.057	0.06	8.6	4.7	0.15	537	3.12
4820		12	0.79	20.3	2.12	2.6	0.05	0.03	0.01	0.062	0.07	11	5.2	0.15	563	3.96
4821		7	1.12	7	1.13	3.68	<0.05	0.03	0.02	0.022	0.13	4.9	7.4	0.15	527	1.23
4822		8	0.91	20.4	1.44	2.45	0.05	0.03	0.02	0.074	0.07	10.2	6	0.17	760	4.32
4823		12	0.73	18	2.56	2.64	0.05	0.03	0.01	0.059	0.06	10.3	4.8	0.14	462	2.19
4824		10	1.1	30.7	1.72	4.27	0.07	0.05	0.06	0.097	0.13	24.5	12.9	0.23	796	1.92
4825		7	0.85	40.6	1.15	2.76	0.06	0.05	0.04	0.026	0.09	18.9	8.1	0.16	1295	0.62
4826		9	0.86	21.9	1.74	3.43	0.05	0.04	0.05	0.089	0.1	15.8	8.1	0.15	853	2.03
4827		5	0.72	15	1.02	2.65	<0.05	0.04	0.02	0.069	0.06	10.5	6.4	0.12	611	1.98
4828		6	0.82	20.4	1.19	3.09	<0.05	0.04	0.03	0.109	0.07	13.3	7.4	0.13	1105	3.9
4829		8	1.03	28.7	1.64	5.3	0.09	0.09	0.06	0.064	0.12	35.6	15.4	0.21	685	0.53
4830		6	0.82	19.1	1.17	3.07	<0.05	0.05	0.04	0.091	0.08	14.2	7.8	0.14	1060	2.65
4831		7	0.78	20.4	1.74	2.95	0.06	0.04	0.03	0.062	0.08	13.5	7.8	0.15	590	1.48
4832		5	0.93	11	1.18	4.26	<0.05	0.13	0.02	0.015	0.05	7.5	8.1	0.12	752	0.36
4833		5	0.95	3.7	1	3.53	<0.05	0.06	0.01	0.013	0.08	2.5	6.9	0.09	1450	1.32
4834		7	0.81	20.5	1.61	3.09	<0.05	0.04	0.04	0.073	0.08	13.8	7.8	0.15	707	1.91
4896		8	0.83	19.6	1.73	2.45	0.05	0.03	0.02	0.066	0.07	11.2	5.1	0.16	668	3.69
4897		8	0.88	18.2	1.59	2.41	<0.05	0.03	0.02	0.069	0.06	9.6	5.3	0.16	736	4.74
4898		13	0.51	25.7	0.78	1.39	<0.05	0.03	0.02	0.044	0.05	6.2	3.1	0.1	137	4.87
4899		5	0.41	10	0.73	0.98	<0.05	0.02	0.01	0.041	0.04	5.5	1.6	0.08	100	0.61
4900		4	0.94	5.3	0.99	2.67	<0.05	<0.02	0.04	0.037	0.11	4.1	4.1	0.11	998	2.57
4901		6	0.94	7.8	1.16	3.93	<0.05	0.02	0.03	0.047	0.1	4.7	6.5	0.11	815	1.75
4902		4	1.05	6.5	1	3.91	<0.05	0.02	0.04	0.146	0.08	4.3	5.7	0.1	1050	2.16
4903		12	2.24	41.3	2.45	10.95	0.18	0.15	0.11	0.085	0.18	97.6	31.4	0.32	856	0.95
4904		7	1.54	20.5	1.67	6.55	0.08	0.08	0.05	0.04	0.11	34.5	26.4	0.23	524	0.35
4905		14	1.52	41.7	2.63	8.9	0.08	0.22	0.06	0.105	0.14	32.6	25.4	0.28	818	0.85
4906		10	1.37	35	1.62	6.95	0.08	0.2	0.11	0.089	0.09	30.8	16.2	0.19	1940	5.03
4907		4	0.42	7.7	0.88	1.39	<0.05	0.03	0.01	0.037	0.03	6	2.8	0.07	304	1.24
4908		6	0.68	19.9	1.28	2.76	0.05	0.06	0.02	0.065	0.06	17.9	5.6	0.11	309	0.81
4909		7	0.78	65.4	1.26	2.51	0.06	0.05	0.02	0.128	0.05	21.8	5.2	0.12	420	8.66
4910		14	2.23	55.9	4.89	9.82	0.12	0.24	0.1	0.296	0.1	45.8	19.8	0.25	9190	48.6
4911		7	1.08	27.7	1.39	3.73	0.05	0.05	0.03	0.157	0.06	15	9.1	0.13	972	8.41
4835		16	6.09	48.9	2.26	6.17	0.07	0.1	0.1	0.123	0.1	13.9	31.3	0.4	1085	1.81
4836		14	4.12	61.1	2.89	8.9	0.08	0.15	0.1	0.083	0.12	24.8	32.7	0.34	1640	1.26
4837		10	3.81	54.2	1.93	6.22	0.09	0.06	0.1	0.237	0.09	26.7	18.4	0.24	1575	10.85
4838		11	2.82	64.2	2.19	7.36	0.1	0.11	0.14	0.096	0.11	32.6	21.8	0.28	1555	3.61
4839		11	2.9	61.6	2.17	6.07	0.09	0.07	0.08	0.169	0.08	27.8	17.7	0.27	1260	6.02
4840		12	1.35	21.7	1.97	3.57	0.06	0.03	0.03	0.056	0.11	13.1	9.7	0.29	532	1.27
4841		29	1.04	12.4	1.72	3.45	0.08	0.05	0.01	0.017	0.09	8.4	9.4	0.4	228	1.37
4842		13	0.99	12.4	1.5	2.6	0.06	0.03	0.02	0.028	0.08	7.9	6.8	0.27	316	0.36

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	Analyte	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
4819		<0.01	0.43	3.7	490	9.7	7.9	<0.001	0.01	0.11	1.5	0.3	0.2	33.9	<0.01	0.03
4820		<0.01	0.51	4.7	610	10.7	8.1	0.001	0.03	0.14	1.7	0.4	0.2	58.9	<0.01	0.04
4821		<0.01	0.74	5.1	500	8.4	14.1	<0.001	<0.01	0.06	1.7	<0.2	0.3	18.1	<0.01	0.01
4822		<0.01	0.46	4.4	530	12.6	9.1	0.001	0.02	0.13	1.8	0.4	0.2	42.9	<0.01	0.04
4823		<0.01	0.51	4	560	9.2	7.8	<0.001	0.02	0.11	1.5	0.3	0.2	38.1	<0.01	0.04
4824		<0.01	0.94	6.9	770	10.6	18.1	<0.001	0.06	0.15	2.6	0.5	0.3	170	<0.01	0.04
4825		0.01	0.55	7.1	580	7.9	10.1	<0.001	0.04	0.18	1.5	0.5	0.2	247	<0.01	0.04
4826		<0.01	0.62	4.6	680	10.1	12.2	0.001	0.03	0.11	2.1	0.4	0.3	90.6	<0.01	0.03
4827		<0.01	0.44	3.4	430	8.1	9.4	0.001	0.02	0.07	1.7	0.2	0.2	56.8	<0.01	0.03
4828		<0.01	0.51	3.9	580	11.2	10.1	0.001	0.02	0.1	1.9	0.3	0.2	77.2	<0.01	0.03
4829		<0.01	0.83	7.6	470	9.8	17.1	<0.001	0.03	0.1	4.2	0.6	0.4	102.5	<0.01	0.03
4830		<0.01	0.51	4.2	530	10.5	10.5	0.001	0.02	0.12	2	0.3	0.2	75.3	<0.01	0.02
4831		<0.01	0.59	3.9	510	8.6	11.3	0.001	0.02	0.12	1.8	0.2	0.2	85.7	<0.01	0.03
4832		0.02	1.05	4.7	650	5	5.9	<0.001	0.01	0.06	1.9	<0.2	0.4	20.5	<0.01	0.01
4833		0.01	0.61	3.6	510	4.3	9.5	<0.001	<0.01	0.06	1.1	<0.2	0.4	31.9	<0.01	<0.01
4834		<0.01	0.56	4	540	9	11.1	<0.001	0.03	0.11	1.9	0.3	0.2	84.8	<0.01	0.02
4896		<0.01	0.51	3.6	580	11.1	8.5	0.001	0.02	0.13	1.6	0.3	0.2	41.3	<0.01	0.04
4897		<0.01	0.48	3.7	560	12.1	8.6	0.001	0.02	0.11	1.7	0.3	0.2	36.6	<0.01	0.04
4898		<0.01	0.29	2.2	430	6.4	5.2	0.006	0.08	0.21	0.7	1.8	<0.2	157	<0.01	0.07
4899		<0.01	0.25	1.7	570	4.7	3.7	0.001	0.02	0.08	0.7	0.5	<0.2	43.8	<0.01	0.04
4900		<0.01	0.45	2.3	290	13.9	13.5	<0.001	0.01	0.09	0.9	<0.2	0.3	18.1	<0.01	0.02
4901		<0.01	0.67	3.8	1020	14.3	11.5	<0.001	0.01	0.1	1.1	<0.2	0.4	36.9	<0.01	0.01
4902		0.01	0.62	3.7	1620	11	10.2	0.001	0.02	0.09	1.1	<0.2	0.4	35.6	<0.01	0.01
4903		0.02	1.67	12.1	680	15.7	24.3	<0.001	0.05	0.24	6.9	1.2	0.7	161	0.01	0.03
4904		<0.01	1.16	5	540	10.2	18.9	<0.001	0.03	0.11	4.3	0.5	0.4	73.5	<0.01	0.03
4905		0.02	1.39	11	420	13.2	22.5	<0.001	0.03	0.11	7.4	0.6	0.6	110	<0.01	0.04
4906		0.02	1.05	7.9	900	10.5	11.5	0.002	0.14	0.21	4.1	0.9	0.5	164	<0.01	0.03
4907		<0.01	0.32	1.9	380	5.7	4.8	<0.001	<0.01	0.06	0.9	<0.2	<0.2	21.6	<0.01	0.02
4908		<0.01	0.52	3.2	580	9.6	8.7	<0.001	0.02	0.07	1.7	0.3	0.2	112.5	<0.01	0.02
4909		<0.01	0.42	4.2	720	11.1	6.4	0.002	0.02	0.13	1.9	0.6	0.2	43.5	<0.01	0.03
4910		0.03	1.05	13.5	1330	20.7	20.7	0.004	0.07	0.21	5.9	1.5	0.6	187.5	0.01	0.1
4911		0.04	0.61	4.3	480	11.4	10.9	0.001	0.04	0.13	2.3	0.5	0.3	55.7	<0.01	0.02
4835		0.05	0.85	13.1	1180	40.4	22.5	0.01	0.13	0.36	3.5	3.6	0.5	182.5	0.01	0.04
4836		0.07	1.21	10.5	840	29.8	19.2	0.001	0.08	0.86	5.5	1.6	0.7	153.5	0.01	0.03
4837		0.06	0.87	8.8	840	21.5	19.8	0.003	0.09	0.31	3.9	1.9	0.5	140	0.01	0.03
4838		0.06	1.01	11.2	770	23.4	21.6	0.001	0.09	0.72	4.6	1.9	0.5	127	0.01	0.04
4839		0.06	0.73	10.4	990	21.4	19.3	0.002	0.08	0.26	3.6	1.7	0.5	126.5	0.01	0.03
4840		0.04	0.82	5.9	630	16.7	14.5	<0.001	0.03	0.17	3	0.6	0.3	41.6	<0.01	0.02
4841		0.04	0.76	5.8	1190	8.1	8.5	0.002	0.09	0.13	2.6	3.4	0.2	49.2	<0.01	0.02
4842		0.04	0.61	4.4	780	6.6	8.3	0.001	0.05	0.13	2	1.1	0.2	66.8	<0.01	0.02

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	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
SAMPLE	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
NUMBER	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
4926	0.1	0.46	3.9	2.4	0.7	104	0.01	0.2	1.4	0.044	0.29	35.9	34	0.43	54.7	2710	1
4927	0.04	0.19	3.5	0.8	0.3	39.6	<0.01	0.03	2.1	0.052	0.1	7.02	71	0.24	11.8	213	0.7
4928	0.04	0.22	3.3	0.9	0.3	51.7	<0.01	0.02	1.7	0.054	0.1	17.25	52	0.21	14	320	0.9
4929	0.03	0.15	2.9	0.6	0.3	32	<0.01	0.02	2	0.053	0.09	11.8	59	0.28	10.55	215	1
4851	0.04	0.17	3.4	0.8	0.3	38.5	<0.01	0.02	1.5	0.054	0.09	4.65	61	0.58	9.94	189	0.7
4852	0.03	0.23	3.7	0.8	0.3	49.2	<0.01	0.03	1.4	0.046	0.1	7.76	42	0.24	17.25	370	1.2
4853	0.26	0.31	1.3	1.1	0.2	440	0.01	0.03	1.1	0.014	0.13	63.5	16	0.06	33.2	102	6.1
4854	0.04	0.16	10.1	1	0.8	256	0.01	0.05	12.5	0.07	0.25	169	35	0.2	54.3	295	13.2
4855	0.03	0.23	7.1	1.1	0.5	232	0.01	0.06	5.9	0.069	0.25	95.4	55	0.28	44.4	589	4.8
4856	<0.01	0.07	2	0.2	0.2	43.1	<0.01	0.04	3.8	0.033	0.06	20.8	24	0.48	10.05	127	1.9
4857	0.01	0.11	3.3	0.4	0.3	91	<0.01	0.03	2.8	0.044	0.11	37.9	30	0.24	20.6	221	3
4858	0.07	0.39	12	1.6	0.7	226	0.01	0.06	6	0.066	0.3	57.1	52	0.23	59.7	599	8.1
4859	0.04	0.2	3.4	0.8	0.3	120.5	<0.01	0.05	2.7	0.042	0.17	34.5	41	0.19	24.1	306	2.5
4860	0.06	0.1	3.1	0.6	0.4	104	<0.01	0.02	2.9	0.042	0.12	43.5	20	0.12	21.6	108	4.1
4861	0.04	0.13	2.1	0.2	0.4	87.2	<0.01	0.02	2.3	0.046	0.14	16.45	22	0.11	12.65	80	2.1
4862	0.05	0.18	8.5	1.7	0.6	129.5	0.01	0.03	9.7	0.07	0.19	61.4	35	0.16	91.8	176	13.9
4863	0.1	0.26	5.1	1.3	0.5	244	0.01	0.03	3.8	0.05	0.19	74.9	24	0.14	67.2	194	8.6
4864	0.05	0.14	5.8	0.8	0.6	197	<0.01	0.04	5.5	0.063	0.19	40.4	24	0.16	44.3	245	6.7
4865	0.01	0.08	1.6	0.2	0.4	50.4	0.01	0.01	1.9	0.06	0.06	5.72	21	0.08	10.7	133	3.3
4866	0.04	0.13	6	0.9	0.6	147.5	<0.01	0.03	6	0.074	0.19	43.2	32	0.12	43.2	228	9.2
4867	0.02	0.1	1.8	0.3	0.2	69.4	<0.01	0.01	3	0.035	0.08	2	23	0.08	8.12	120	1.1
4868	0.06	0.21	3.2	0.7	0.4	100.5	0.01	0.02	2.8	0.038	0.13	33.8	25	0.11	53.8	95	2.3
4869	0.07	0.21	3.2	0.8	0.4	111	0.01	0.02	2.7	0.037	0.13	38.1	26	0.12	58.1	101	2.4
4870	0.02	0.06	1.6	0.2	0.2	64.3	<0.01	0.01	5.2	0.032	0.05	3.3	24	0.05	7.12	55	1.1
4871	0.02	0.1	1.7	0.2	0.3	72	<0.01	0.01	2.8	0.037	0.06	7.65	35	0.06	8.77	64	1.1
4872	0.01	0.1	1.9	<0.2	0.2	20.4	<0.01	0.01	2.6	0.043	0.08	0.76	34	0.2	3.3	152	0.7
4873	0.02	0.15	2.9	0.4	0.3	41.2	<0.01	0.02	2.8	0.032	0.1	8.15	41	0.35	14.6	213	1.3
4874	<0.01	0.07	1.7	<0.2	0.2	19	<0.01	0.01	2.6	0.031	0.08	4.02	33	0.12	6.42	135	1.2
4875	0.07	0.15	1.7	2.1	0.2	61.3	<0.01	0.05	1.2	0.024	0.08	14.7	29	0.12	9.11	141	1
4876	0.05	0.09	1.2	1.8	0.2	44.8	<0.01	0.02	1	0.029	0.05	12.5	22	0.1	3.53	42	1.5

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To: ALMADEN MINERALS LTD.
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method Analyte Units LOR	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005	ME-MS41 Tl ppm 0.02	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5
4819		4.3	0.027	0.05	4.54	39	0.32	5.71	170	0.8
4820		3	0.026	0.06	14.8	49	0.34	7.76	173	1
4821		1.5	0.055	0.09	0.82	22	0.12	2.55	79	1.5
4822		4.2	0.027	0.07	5.53	30	0.27	7.87	230	1
4823		10	0.029	0.06	6.67	60	0.65	6.64	161	0.7
4824		3.1	0.035	0.11	32	28	0.15	21.3	228	1.5
4825		1.2	0.03	0.08	9.93	22	0.1	24.9	122	1.5
4826		2.1	0.032	0.09	9.22	32	0.17	13.05	203	1.3
4827		4.4	0.026	0.07	7.11	18	0.1	8.48	148	1.1
4828		2.8	0.026	0.08	9.79	19	0.25	12.05	209	1.2
4829		4.1	0.039	0.12	17.4	23	0.11	28.4	85	3.2
4830		3.1	0.028	0.09	9.07	19	0.13	12.2	201	1.4
4831		3.3	0.031	0.07	15.45	33	0.12	10.7	147	1.2
4832		1.4	0.062	0.07	0.93	22	0.06	11.2	65	6.9
4833		1.1	0.056	0.06	0.24	22	0.05	1.3	241	2.2
4834		2	0.03	0.08	13.75	30	0.13	11.65	162	1.2
4896		2.2	0.028	0.07	5.91	37	0.33	7.67	202	0.9
4897		3.2	0.028	0.06	5.29	34	0.35	6.9	216	0.9
4898		1.8	0.015	0.04	30.8	17	0.18	8.34	85	0.8
4899		1.6	0.01	0.03	5.19	16	0.31	3.04	48	0.5
4900		1.9	0.032	0.08	0.72	20	0.17	1.43	176	<0.5
4901		1.4	0.045	0.07	1.41	23	0.36	2.05	306	0.7
4902		0.5	0.047	0.07	0.55	19	0.11	2.4	473	0.9
4903		5.2	0.061	0.17	54.8	30	0.18	72.8	118	4.9
4904		5.9	0.032	0.13	26.8	24	0.09	30.7	54	3
4905		8.3	0.066	0.14	21.8	37	0.16	27.6	98	7.5
4906		2.9	0.05	0.21	68.6	30	0.15	29.9	135	7.2
4907		1.7	0.017	0.04	2.33	18	0.13	3.73	67	0.8
4908		4.5	0.025	0.06	10.4	22	0.16	15.3	93	1.9
4909		1.6	0.025	0.05	14.15	22	0.21	23.6	301	1.1
4910		2.9	0.044	0.32	44.2	70	0.23	54.1	515	7.8
4911		1.7	0.039	0.09	9.63	26	0.19	11.8	286	1.3
4835		0.5	0.063	0.15	16.45	46	0.21	17.45	973	3.3
4836		1.2	0.073	0.16	34.7	49	0.25	29.4	534	5.3
4837		1	0.05	0.16	20.8	34	0.16	35	1735	1.9
4838		1.2	0.049	0.18	22.7	43	0.28	42.2	363	3.2
4839		0.8	0.058	0.15	22.6	45	0.19	34.8	466	2
4840		2	0.047	0.09	10.6	47	0.2	10.65	246	0.8
4841		1.7	0.065	0.07	6.25	52	0.26	5.28	52	1.3
4842		1.5	0.036	0.06	2.48	41	0.55	4.95	81	0.9

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

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To: ALMADEN MINERALS LTD.
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST44 Au ppm 0.0001	Au-OG44 Au ppm 0.01	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1
4843		2.98	0.0035		0.34	1.01	4	<0.2	<10	90	0.31	0.47	0.63	0.5	21.5	7.5
4844		2.06	0.0023		0.33	0.93	2.3	<0.2	<10	90	0.34	0.33	0.84	0.4	15.2	4.7
4845		1.74	0.0040		0.32	0.93	2.2	<0.2	<10	90	0.29	0.23	2.09	0.52	13.15	3.1
4846		2.20	0.0021		3.02	1.89	5.2	<0.2	<10	360	0.54	1.88	0.78	1.42	26.2	6.7
4847		2.50	0.0202		2.25	1.49	4.7	<0.2	<10	270	0.46	0.59	0.63	1.13	25.3	6
4848		2.58	0.0103		3.14	1.88	4.9	<0.2	<10	250	0.54	0.48	0.72	0.74	23.2	6
4849		2.60	0.0145		0.9	1.08	3.4	<0.2	<10	150	0.25	0.29	0.65	0.37	21.6	5
4850		3.04	0.0071		1.8	1.35	4.1	<0.2	<10	200	0.37	0.39	0.64	0.68	20.9	5.6
4912		2.16	0.0034		4.69	2.21	6.9	<0.2	<10	300	0.78	0.38	1.16	1.4	23.2	5.2
4913		2.18	0.0026		4.72	2.1	8	<0.2	<10	860	0.85	0.57	1.22	2.5	30.2	9.5
4914		2.84	0.0285		1.69	1.21	3.1	<0.2	<10	270	0.35	0.4	0.47	0.63	21.9	5.8
4915		2.42	0.0066		3.76	2.28	5.8	<0.2	<10	360	0.81	0.55	0.59	0.35	39.6	6.4
4916		2.02	0.0025		2.96	1.62	3.8	<0.2	<10	410	0.45	0.74	0.69	1.45	24.4	5.3
4917		2.12	0.0019		2.91	1.59	4.3	<0.2	<10	350	0.47	0.59	0.59	0.65	21.9	5.7
4918		2.58	0.0022		2.56	1.48	3.7	<0.2	<10	380	0.42	0.7	0.61	1.07	23.4	5.8
4919		2.54	0.0195		1.96	1.24	3.1	<0.2	<10	280	0.36	0.44	0.55	0.66	19.6	5.2
4920		2.80	0.0090		1.34	1.05	4.3	<0.2	<10	160	0.32	0.34	0.74	0.61	20.9	5.8
4921		2.42	0.0212		1.29	1.01	3.9	<0.2	<10	150	0.27	0.34	0.67	0.47	22.1	5.3
4922		1.66	0.0048		2.11	1.86	1.5	<0.2	<10	480	0.98	0.84	1.25	1.17	21.2	3.1
4923		1.60	0.0035		3.05	2.29	9	<0.2	<10	1400	0.61	0.75	0.93	2.4	42.5	9.7
4924		2.50	0.0023		3.94	1.91	4	<0.2	<10	450	0.61	1.19	0.67	1.72	26.8	5.3
4925		2.16	0.0039		5.78	2.51	6.1	<0.2	<10	830	0.83	1.72	0.73	4.88	38.4	7.8
4926		1.50	0.0028		10.2	3.28	3	<0.2	<10	630	1.43	7.3	0.87	8.14	65.5	5.9
4927		2.32	0.0200		1.16	1	3.7	<0.2	<10	140	0.28	0.5	0.59	0.48	23.1	5.9
4928		1.96	0.0115		1.69	1.09	2.5	<0.2	<10	220	0.32	0.38	0.53	0.5	18.95	4.4
4929		3.10	0.0081		1.07	0.97	2	<0.2	<10	130	0.28	0.28	0.42	0.3	17.4	4.2
4851		2.56	0.0081		0.85	1.07	3.5	<0.2	<10	150	0.28	0.27	0.64	0.36	20.4	5.4
4852		2.48	0.0095		2.47	1.43	4.1	<0.2	<10	250	0.36	0.49	0.57	0.72	18.15	4.7
4853		0.90	0.0017		1.61	0.82	0.8	<0.2	<10	410	0.54	0.23	1.81	1.64	30.9	1.5
4854		1.62	0.0021		3.84	4.05	1.5	<0.2	<10	530	1.5	0.94	1.03	0.79	92	4.9
4855		1.98	0.0021		4.82	2.53	3.8	<0.2	<10	570	1.02	1.06	0.77	2.89	46	7.6
4856		2.98	0.0025		1.17	0.82	1.1	<0.2	<10	200	0.24	0.86	0.25	0.25	17.5	2.1
4857		2.16	0.0024		2.31	1.4	1.9	<0.2	<10	350	0.43	0.66	0.45	0.59	25.3	3.5
4858		1.24	0.0064		13.85	3.82	6.2	<0.2	<10	920	0.94	1.08	1.08	1.84	44.8	7.7
4859		2.18	0.0021		3.01	1.47	3	<0.2	<10	550	0.42	0.5	0.61	1.15	25.7	5.4
4860		2.54	0.0021		1.15	1.68	1	<0.2	<10	380	0.5	0.42	0.67	0.35	30.7	2.8
4861		2.34	0.0011		1.02	1.3	1.2	<0.2	<10	320	0.31	0.3	0.57	0.46	25.1	3.1
4862		2.00	0.0019		2.82	3.18	1.9	<0.2	<10	520	1.65	0.66	1.12	0.45	80.1	5
4863		1.24	0.0023		2.46	2.63	1.1	<0.2	<10	570	1.13	0.58	1.53	1.02	57.4	3.4
4864		1.86	0.0013		2.45	2.93	0.9	<0.2	<10	640	0.97	0.48	1.09	0.87	41.9	3.9

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VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
4843		23	1.7	25.4	2.76	4.24	0.06	0.03	0.01	0.052	0.15	11.1	11.2	0.48	868	1.06
4844		22	1.17	31	1.33	3.58	0.06	0.05	0.02	0.03	0.1	9	12.1	0.34	346	0.72
4845		27	0.84	45.6	0.94	3.2	0.07	0.07	0.05	0.019	0.06	10.9	10.7	0.23	229	1.14
4846		17	2.23	60.1	2.63	5.86	0.09	0.04	0.07	0.135	0.14	22	14	0.4	869	4.11
4847		15	1.95	47.6	2.46	4.99	0.08	0.03	0.05	0.11	0.13	18.7	12.7	0.34	882	3.9
4848		18	2.13	37.9	2.44	5.92	0.08	0.04	0.06	0.108	0.13	17.2	16.9	0.39	841	2.63
4849		18	1.5	19	2.66	3.8	0.06	0.03	0.05	0.053	0.1	12	11.7	0.34	632	1.02
4850		17	1.85	30.8	2.54	4.64	0.08	0.03	0.05	0.094	0.12	14.4	12.8	0.37	737	1.81
4912		15	4.2	54	1.92	6.41	0.07	0.1	0.07	0.088	0.11	17	25.9	0.34	766	0.76
4913		12	3.03	61.4	2.67	6.57	0.1	0.08	0.12	0.161	0.1	27.2	19.3	0.31	6110	11.7
4914		20	1.68	28.4	3.36	4.7	0.08	0.03	0.03	0.085	0.1	13.9	11.3	0.34	1005	3.09
4915		19	2.36	62	3.12	7.68	0.11	0.09	0.06	0.105	0.16	35.4	23	0.36	915	1.22
4916		16	1.77	49.1	2.47	5.09	0.07	0.04	0.07	0.15	0.09	17.1	12.9	0.3	1840	8.54
4917		14	1.99	36.9	2.21	5.07	0.07	0.04	0.05	0.115	0.13	16.3	12.7	0.34	806	1.45
4918		17	1.79	43	2.65	4.81	0.07	0.04	0.05	0.13	0.1	16.6	12.3	0.32	1490	5.77
4919		15	1.64	31.4	2.49	4.31	0.07	0.04	0.04	0.088	0.1	14.3	11.6	0.31	906	2.8
4920		19	1.57	29.5	3.1	4.03	0.08	0.03	0.04	0.063	0.11	14	9.8	0.36	763	1.64
4921		19	1.41	26.8	3.27	3.79	0.08	0.02	0.04	0.062	0.12	14.6	9.4	0.33	673	1.2
4922		8	2.14	120.5	1.48	5.3	0.11	0.14	0.08	0.057	0.09	39.1	16.4	0.21	455	0.39
4923		15	2.08	48.3	3.82	7.14	0.09	0.06	0.09	0.143	0.13	20.7	15.9	0.32	14550	49.9
4924		15	1.82	71.2	2.23	5.7	0.08	0.06	0.06	0.203	0.08	23	14.3	0.26	1895	13.75
4925		17	2.56	117	3.13	7.34	0.11	0.07	0.09	0.391	0.1	34.8	16.7	0.29	5700	35.3
4926		9	3.18	261	2.37	8.98	0.13	0.06	0.18	1.5	0.09	44.9	15.7	0.19	4180	74.5
4927		17	1.49	24.3	2.79	3.95	0.08	0.02	0.03	0.064	0.13	13.3	9.4	0.34	693	1.75
4928		13	1.52	28	2.15	3.98	0.07	0.03	0.04	0.073	0.1	13.8	10.1	0.27	661	2.15
4929		14	1.26	22.9	2.33	3.58	0.06	0.04	0.02	0.049	0.1	11.6	9	0.28	458	1.1
4851		17	1.5	23.2	2.49	3.81	0.06	0.03	0.04	0.052	0.11	11.6	11.1	0.35	732	1.12
4852		14	1.74	36.2	2	4.42	0.05	0.04	0.02	0.088	0.11	14.5	11.9	0.33	649	2.28
4853		4	0.7	37.5	0.83	1.93	0.07	0.15	0.25	0.035	0.03	33.3	3.4	0.09	464	1.87
4854		14	2.63	40.9	2.74	11.8	0.13	0.33	0.08	0.146	0.16	61.7	61.4	0.28	1175	1.03
4855		12	2.91	66.5	3.26	8.3	0.11	0.11	0.07	0.183	0.22	47.9	24.1	0.41	1860	6.13
4856		7	0.83	18	1.16	2.77	<0.05	0.06	<0.01	0.067	0.04	11	9.2	0.13	405	1.01
4857		8	1.22	31.7	1.57	4.35	0.06	0.08	0.02	0.106	0.07	18.3	14.1	0.18	1125	1.87
4858		17	2.59	100	3.54	11.15	0.1	0.21	0.12	0.19	0.17	36.7	31.1	0.31	7110	5.1
4859		9	1.23	27.1	2.5	4.51	0.07	0.07	0.03	0.092	0.07	21.8	15.2	0.17	3020	7.6
4860		8	1.06	26	1.28	4.7	0.06	0.1	0.05	0.064	0.07	25.4	15.1	0.16	521	1.47
4861		6	1.4	15.1	1.2	4.02	<0.05	0.05	0.03	0.041	0.09	17.3	11.4	0.17	1390	1.32
4862		12	2.29	79.8	2.7	10.4	0.24	0.33	0.1	0.121	0.26	137.5	27.3	0.36	776	0.72
4863		9	2.18	43.8	1.82	7.9	0.16	0.2	0.12	0.093	0.17	84.6	25.1	0.28	627	0.85
4864		10	2.25	35.7	2.04	8.48	0.12	0.16	0.08	0.084	0.19	52.2	29.2	0.3	844	0.62

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

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To: ALMADEN MINERALS LTD.
1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01
4843		0.04	1.01	8.4	970	18.3	15.3	<0.001	0.04	0.2	3.6	0.5	0.3	31	<0.01	0.05
4844		0.04	0.68	8	550	10.7	11	0.002	0.09	0.18	2.3	2	0.2	45.8	<0.01	0.02
4845		0.05	0.59	6.6	880	6.8	5.8	0.004	0.21	0.31	1.7	4.1	0.3	93.6	<0.01	0.03
4846		0.04	0.73	14.6	900	36.5	20.9	0.001	0.06	0.27	4.9	1.5	0.4	76.8	<0.01	0.04
4847		0.04	0.65	12.6	780	33.1	19.3	0.001	0.05	0.27	4.1	1.2	0.3	58.4	<0.01	0.03
4848		0.04	0.81	13.2	710	28.1	21.1	0.001	0.05	0.22	5.2	1.3	0.4	61	<0.01	0.03
4849		0.04	0.63	7.2	860	24.8	15.9	<0.001	0.04	0.16	3.3	1	0.3	37.5	<0.01	0.02
4850		0.04	0.66	9.9	770	26.3	19.2	0.001	0.05	0.22	4.1	1.1	0.3	46.3	<0.01	0.02
4912		0.05	0.97	15.3	800	62.8	20.7	0.003	0.09	0.28	4	2	0.5	130.5	<0.01	0.03
4913		0.06	0.7	10.8	1180	29.1	16.8	0.007	0.15	0.85	4.5	3.1	0.5	100	0.01	0.04
4914		0.04	0.69	8	570	21.5	15.8	0.001	0.04	0.25	3.6	0.7	0.3	47.3	<0.01	0.02
4915		0.05	0.95	13.8	510	29	19.1	0.001	0.03	0.28	8.2	1.3	0.4	67.4	0.01	0.03
4916		0.05	0.65	9.6	760	21.5	15.8	0.002	0.06	0.32	4	1.1	0.4	71.4	<0.01	0.03
4917		0.04	0.7	10.1	530	33.5	18.7	<0.001	0.04	0.26	4.4	0.8	0.3	81.7	<0.01	0.03
4918		0.04	0.73	9.4	640	23.7	15.7	0.001	0.05	0.31	4.1	1	0.4	62.7	<0.01	0.03
4919		0.04	0.67	8.1	580	20.9	15.9	0.001	0.04	0.24	3.7	1	0.3	56.2	<0.01	0.02
4920		0.04	0.62	8.3	1070	25.3	13	0.001	0.06	0.26	3.9	1.4	0.3	48.6	<0.01	0.02
4921		0.04	0.58	7.8	940	24.2	15.6	0.001	0.05	0.2	3.4	0.9	0.3	44.5	<0.01	0.02
4922		0.06	0.87	7.8	670	11	14.7	0.001	0.1	0.21	3.3	1.5	0.4	508	0.01	0.02
4923		0.07	0.68	19	1160	22	19.6	0.004	0.1	0.42	5.2	1.6	0.5	141	<0.01	0.06
4924		0.05	0.79	10	570	23.5	13.7	0.002	0.05	0.28	4.4	1.3	0.4	86.2	<0.01	0.05
4925		0.06	0.88	14.2	740	28.1	16.8	0.004	0.06	0.41	6	1.8	0.5	74.1	0.01	0.07
4926		0.05	0.81	11	1080	33.3	18.7	0.005	0.1	0.46	3.9	2.4	0.7	104	0.01	0.2
4927		0.04	0.66	7.7	1000	23.1	15.6	<0.001	0.04	0.19	3.5	0.8	0.3	39.6	<0.01	0.03
4928		0.04	0.65	6.7	620	17	15.1	<0.001	0.04	0.22	3.3	0.9	0.3	51.7	<0.01	0.02
4929		0.04	0.68	6.3	600	16.4	13	0.001	0.03	0.15	2.9	0.6	0.3	32	<0.01	0.02
4851		0.04	0.61	7.3	760	26.4	16.8	<0.001	0.04	0.17	3.4	0.8	0.3	38.5	<0.01	0.02
4852		<0.01	0.62	10.7	670	26.7	17.2	<0.001	0.03	0.23	3.7	0.8	0.3	49.2	<0.01	0.03
4853		<0.01	0.42	3.7	1280	11.9	3.9	<0.001	0.26	0.31	1.3	1.1	0.2	440	0.01	0.03
4854		0.01	2.09	10	640	30.8	28.1	<0.001	0.04	0.16	10.1	1	0.8	256	0.01	0.05
4855		0.01	1.31	10.4	790	80.2	30.3	0.001	0.03	0.23	7.1	1.1	0.5	232	0.01	0.06
4856		<0.01	0.57	3.6	380	13.5	9.9	<0.001	<0.01	0.07	2	0.2	0.2	43.1	<0.01	0.04
4857		<0.01	0.79	5.7	410	21.4	14.4	<0.001	0.01	0.11	3.3	0.4	0.3	91	<0.01	0.03
4858		0.02	1.42	23.7	1050	35.6	22.4	0.001	0.07	0.39	12	1.6	0.7	226	0.01	0.06
4859		0.01	0.76	7.5	500	20.6	11.1	0.001	0.04	0.2	3.4	0.8	0.3	120.5	<0.01	0.05
4860		0.01	0.91	5.3	650	10.3	11.2	<0.001	0.06	0.1	3.1	0.6	0.4	104	<0.01	0.02
4861		<0.01	0.97	3.8	670	16	17.2	<0.001	0.04	0.13	2.1	0.2	0.4	87.2	<0.01	0.02
4862		0.02	1.87	14.8	610	23.1	31.1	0.001	0.05	0.18	8.5	1.7	0.6	129.5	0.01	0.03
4863		0.01	1.55	8.4	800	23.4	22.8	<0.001	0.1	0.26	5.1	1.3	0.5	244	0.01	0.03
4864		0.02	1.62	8.5	620	22.5	29.3	<0.001	0.05	0.14	5.8	0.8	0.6	197	<0.01	0.04

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Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method Analyte Units LOR	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005	ME-MS41 Tl ppm 0.02	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5
4843		15.5	0.053	0.11	6.06	74	0.39	8.36	153	0.6
4844		1.2	0.046	0.09	8.3	34	0.23	8.05	93	1.6
4845		0.5	0.04	0.07	19.1	25	0.2	12.35	33	2.5
4846		1.2	0.056	0.14	11.75	58	2.4	25.7	685	0.8
4847		1.2	0.053	0.12	12.65	56	0.29	19.3	519	0.8
4848		1.5	0.062	0.13	8.06	53	0.29	23.1	377	1.2
4849		1.6	0.054	0.1	3.58	67	5.19	9.63	186	0.7
4850		1.4	0.058	0.11	6.99	61	0.3	14.8	323	0.8
4912		0.8	0.069	0.14	14.7	42	0.23	20.6	891	3.8
4913		1	0.048	0.22	46.6	47	1.95	36.6	983	2.3
4914		1.9	0.066	0.1	10.2	89	0.33	12.45	408	1
4915		4.1	0.063	0.17	43	67	1.93	47.7	310	2.5
4916		1.3	0.055	0.12	10.6	55	0.26	20.3	696	1.1
4917		1.9	0.056	0.12	16.55	48	0.27	17.85	316	1.3
4918		1.5	0.057	0.11	10.7	61	0.52	17.1	585	1
4919		4.7	0.055	0.11	17.15	59	0.25	14.85	394	0.9
4920		2	0.049	0.1	10.6	80	2.56	14.15	256	0.7
4921		2.1	0.047	0.1	10.45	84	5.78	12.95	232	0.7
4922		1.9	0.052	0.12	44.1	26	0.14	48.1	629	5.2
4923		1.2	0.06	0.3	12.65	59	0.42	25.1	803	2.2
4924		1.5	0.059	0.13	16.05	46	0.29	27.3	821	1.7
4925		1.9	0.06	0.21	19.6	48	0.48	41.1	1890	1.9
4926		1.4	0.044	0.29	35.9	34	0.43	54.7	2710	1
4927		2.1	0.052	0.1	7.02	71	0.24	11.8	213	0.7
4928		1.7	0.054	0.1	17.25	52	0.21	14	320	0.9
4929		2	0.053	0.09	11.8	59	0.28	10.55	215	1
4851		1.5	0.054	0.09	4.65	61	0.58	9.94	189	0.7
4852		1.4	0.046	0.1	7.76	42	0.24	17.25	370	1.2
4853		1.1	0.014	0.13	63.5	16	0.06	33.2	102	6.1
4854		12.5	0.07	0.25	169	35	0.2	54.3	295	13.2
4855		5.9	0.069	0.25	95.4	55	0.28	44.4	589	4.8
4856		3.8	0.033	0.06	20.8	24	0.48	10.05	127	1.9
4857		2.8	0.044	0.11	37.9	30	0.24	20.6	221	3
4858		6	0.066	0.3	57.1	52	0.23	59.7	599	8.1
4859		2.7	0.042	0.17	34.5	41	0.19	24.1	306	2.5
4860		2.9	0.042	0.12	43.5	20	0.12	21.6	108	4.1
4861		2.3	0.046	0.14	16.45	22	0.11	12.65	80	2.1
4862		9.7	0.07	0.19	61.4	35	0.16	91.8	176	13.9
4863		3.8	0.05	0.19	74.9	24	0.14	67.2	194	8.6
4864		5.5	0.063	0.19	40.4	24	0.16	44.3	245	6.7

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Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-ST44 Au ppm 0.0001	Au-OG44 Au ppm 0.01	ME-MS41 Ag ppm 0.01	ME-MS41 Al % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.2	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1
4865		1.38	0.0008		0.18	1.37	0.5	<0.2	<10	280	0.36	0.16	0.45	0.33	17.45	2.6
4866		2.00	0.0035		2.01	2.86	1	<0.2	<10	550	1.09	0.52	0.87	0.89	41.8	4.3
4867		1.40	0.0016		0.19	0.74	0.7	<0.2	<10	310	0.28	0.24	0.75	0.96	19.55	3.4
4868		1.52	0.0012		0.59	1.61	0.9	<0.2	<10	300	0.71	0.26	1.2	0.32	29.1	3.7
4869		1.42	0.0009		0.68	1.71	0.9	<0.2	<10	320	0.78	0.3	1.32	0.33	30.1	3.6
4870		2.78	0.0004		0.11	0.75	<0.1	<0.2	<10	90	0.26	0.08	0.88	0.19	17.65	3.3
4871		2.40	0.0018		0.14	0.79	0.2	<0.2	<10	100	0.26	0.1	0.59	0.21	17.95	3.6
4872		1.90	0.0032		0.16	0.77	1.8	<0.2	<10	120	0.2	0.34	0.24	0.4	18	4.5
4873		2.42	0.0056		0.52	1.31	2.5	<0.2	<10	250	0.48	0.69	0.59	0.45	20.7	4.8
4874		2.98	0.0913		0.23	0.72	1.5	<0.2	<10	160	0.25	0.43	0.28	0.3	19.1	4
4875		2.04	0.0031		0.43	0.85	2.2	<0.2	<10	200	0.31	0.42	0.95	0.43	13.1	3.9
4876		2.98	0.0008		0.19	0.57	0.8	<0.2	<10	80	0.13	0.09	0.65	0.21	10.2	2.7

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CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo
	Units	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
	LOR	1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
4865		5	2.14	10.8	1.22	4.53	<0.05	0.07	<0.01	0.022	0.15	16.5	16.7	0.14	533	0.65
4866		11	3.57	46.8	2.32	8.68	0.11	0.22	0.05	0.097	0.22	57.2	25	0.33	617	0.69
4867		6	1.15	16.9	1.32	3.01	0.05	0.03	0.01	0.03	0.19	12.3	7.4	0.22	1010	0.72
4868		7	2.41	30.4	1.63	5.62	0.11	0.07	0.05	0.039	0.18	55.2	21.7	0.36	824	0.53
4869		9	2.35	32.9	1.71	5.87	0.11	0.08	0.07	0.043	0.2	60.3	22.3	0.34	820	0.7
4870		4	2.02	9.5	1.46	3.29	0.05	0.03	<0.01	0.028	0.11	12.8	13.6	0.3	353	0.17
4871		7	1.67	14	1.94	3.56	0.06	0.03	<0.01	0.015	0.13	13.1	14.1	0.28	490	0.36
4872		9	1.2	19.6	1.59	3.19	<0.05	0.02	<0.01	0.033	0.15	8.6	7.9	0.29	803	1.76
4873		13	2.37	29.1	2.11	4.29	<0.05	0.04	0.01	0.064	0.17	14.5	15.9	0.33	959	1.49
4874		8	1.51	13.1	1.57	2.8	<0.05	0.03	<0.01	0.036	0.1	10	8.6	0.24	750	1.04
4875		9	1.63	21.2	1.54	2.98	<0.05	0.03	0.02	0.043	0.12	9.1	10.3	0.29	1490	1.41
4876		18	0.57	7.3	0.83	2.16	<0.05	0.05	<0.01	0.012	0.05	6	7.6	0.21	192	0.61

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CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method / Analyte / Units / LOR	ME-MS41 Na % 0.01	ME-MS41 Nb ppm 0.05	ME-MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01
4865		0.01	1.2	4.2	900	12.1	12.2	<0.001	0.01	0.08	1.6	0.2	0.4	50.4	0.01	0.01
4866		0.02	1.74	9.1	510	28.8	32.7	<0.001	0.04	0.13	6	0.9	0.6	147.5	<0.01	0.03
4867		<0.01	0.82	4.3	560	12.7	15.1	<0.001	0.02	0.1	1.8	0.3	0.2	69.4	<0.01	0.01
4868		<0.01	1.27	8.3	900	10.4	17.5	<0.001	0.06	0.21	3.2	0.7	0.4	100.5	0.01	0.02
4869		<0.01	1.21	9.9	930	11	18.3	<0.001	0.07	0.21	3.2	0.8	0.4	111	0.01	0.02
4870		<0.01	0.84	3.4	550	4.5	13.1	<0.001	0.02	0.06	1.6	0.2	0.2	64.3	<0.01	0.01
4871		<0.01	1	5	680	5.8	14.7	<0.001	0.02	0.1	1.7	0.2	0.3	72	<0.01	0.01
4872		<0.01	0.65	4.9	550	18.7	13.9	<0.001	0.01	0.1	1.9	<0.2	0.2	20.4	<0.01	0.01
4873		<0.01	0.67	6.8	650	18.6	20.5	<0.001	0.02	0.15	2.9	0.4	0.3	41.2	<0.01	0.02
4874		<0.01	0.53	4.5	500	13.5	14.8	<0.001	<0.01	0.07	1.7	<0.2	0.2	19	<0.01	0.01
4875		<0.01	0.44	4.7	710	12.4	13.4	0.001	0.07	0.15	1.7	2.1	0.2	61.3	<0.01	0.05
4876		<0.01	0.38	3.7	560	4.8	4.3	0.002	0.05	0.09	1.2	1.8	0.2	44.8	<0.01	0.02

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1103-750 W PENDER ST
VANCOUVER BC V6C 2T8

Finalized Date: 5-AUG-2008
Account: PFM

Project: ML

CERTIFICATE OF ANALYSIS VA08089953

Sample Description	Method	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
	Analyte	Th	Ti	Tl	U	V	W	Y	Zn	Zr
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.2	0.005	0.02	0.05	1	0.05	0.05	2	0.5
4865		1.9	0.06	0.06	5.72	21	0.08	10.7	133	3.3
4866		6	0.074	0.19	43.2	32	0.12	43.2	228	9.2
4867		3	0.035	0.08	2	23	0.08	8.12	120	1.1
4868		2.8	0.038	0.13	33.8	25	0.11	53.8	95	2.3
4869		2.7	0.037	0.13	38.1	26	0.12	58.1	101	2.4
4870		5.2	0.032	0.05	3.3	24	0.05	7.12	55	1.1
4871		2.8	0.037	0.06	7.65	35	0.06	8.77	64	1.1
4872		2.6	0.043	0.08	0.76	34	0.2	3.3	152	0.7
4873		2.8	0.032	0.1	8.15	41	0.35	14.6	213	1.3
4874		2.6	0.031	0.08	4.02	33	0.12	6.42	135	1.2
4875		1.2	0.024	0.08	14.7	29	0.12	9.11	141	1
4876		1	0.029	0.05	12.5	22	0.1	3.53	42	1.5

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

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To: ALMADEN MINERALS LTD.
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VANCOUVER BC V6C 2T8

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