Volume II - APPENDICIES

GEOLOGICAL and DIAMOND DRILLING REPORT

for the

KALUM PROPERTY

Terrace B.C. Skeena MD

128°54'W / 54°45' N

TRIM Map sheets 103I066, 075, 076, 077, 085, 086, 087

Prepared for

WINDSTORM RESOURCES INC.

709, 837 West Hastings Street

Vancouver, BC V6C 3N6

And

Eagle Plains Resources Ltd.

Suite 200, 16-11th Ave South.

Cranbrook, BC

V1C 2P1

By

Jarrod A. Brown, M.Sc., P.Geo.
TerraLogic Exploration Inc.
Suite 200, 44-12th Ave. S.
Cranbrook, B.C. V1C 2R7

March 14, 2011

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Jarrod A. Brown of 6660-A Harrop-Procter Road, in the city of Nelson in the Province of British Columbia hereby certify that:

1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#29239) and Saskatchewan (#16652)

2) I am a graduate of the University of Manitoba with the degree of Master of Science in Geology (2001).

3) I am a graduate of Simon Fraser University with the degree of Bachelor of Science in Physical Geography (1997).

4) I have practiced my profession in North America since 1998, having worked for various Junior Resource Companies and government surveys.

5) This report is based upon a personal examination of all available company and government reports pertinent to the Kalum Property, located 35 kilometers northwest of Terrace British Columbia, Canada.

6) For the writing of this report, the author has reviewed and accepts the quality and comprehensiveness of field notes, diamond drill logs and sections generated by Terralogic senior project geologists, Jim Ryley and Chris Gallagher.

7) I hold an option to purchase 220,000 Common Shares of Eagle Plains Resources at average price of $0.45 per share.

Dated this 16th day of March 2011, in Nelson, British Columbia.

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. A. BROWN
#29239

Jarrod A. Brown, P. Geo.

APPENDIX II

STATEMENT OF EXPENDITURES

Exploration Work type	Comment	Days			Totals
Personnel (Name) / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal**	
James Ryley / Senior Geo	on site and core logging	23.0		$16,560.00	
Mark Bolton - Tech		13.0		$ 5,005.00	
Chris Gahallgher/ Project Manager		6.0		$ 4,462.50	
				$26,027.50	**$26,027.50**
Office Studies	**List Personnel**				
Project Management	Chuck Downie			$ 1,050.00	
Porject Planning	Jesse Campbell			$ 486.00	
Literature search	Fiona Katay		$0.00	$1,041.25	
Database compilation	Brad Robison		$0.00	$1,181.25	
Computer modelling	Chris Gahallgher		$0.00	$4,462.50	
Reprocessing of data	Glen Hendrikson		$0.00	$120.75	
General research	Leigh Block		$0.00	$110.00	
Report preparation	Aaron Higgs		$0.00	$2,300.00	
				$10,751.75	**$10,751.75**
Contractors and Subcontractors					
Geological	Progressive Ventures expediting			$298.00	
Geochemical	Kathryn Dunne			$992.41	
Other	core rack build and store			$2,754.26	
				$4,044.67	**$4,044.67**
Airborne Exploration Surveys	**Line Kilometres / Enter total invoiced amount**				
Aeromagnetics			$0.00	$0.00	
Radiometrics			$0.00	$0.00	
Electromagnetics			$0.00	$0.00	
Gravity			$0.00	$0.00	
Digital terrain modelling			$0.00		
				$0.00	**$0.00**
Remote Sensing	**Area in Hectares / Enter total invoiced amount or list personnel**				
Aerial photography			$0.00	$0.00	
LANDSAT			$0.00	$0.00	
Aster					
				$0.00	**$0.00**
Ground geophysics	**Line Kilometres / Enter total amount invoiced list personnel**				
Radiometrics					
Magnetics					
Gravity					
Digital terrain modelling					
Electromagnetics					
IP					
Geophysical interpretation					
Petrophysics					
				$0.00	**$0.00**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Drill (cuttings, core, etc.)		207.0	$0.00	$5,356.98	
Stream sediment			$0.00	$0.00	
Soil			$0.00	$0.00	
Rock			$0.00	$0.00	
Water			$0.00	$0.00	
Biogeochemistry			$0.00	$0.00	
Whole rock			$0.00	$0.00	
Petrology			$0.00	$0.00	
				$5,356.98	**$5,356.98**
Drilling	**No. of Holes, Size of Core and Metres**	**No.**	**Rate**	**Subtotal**	

Diamond	419.11m NQ in 6 holes	419.1	$141.42	$59,271.06	
Reverse circulation (RC)			$0.00	$0.00	
Rotary air blast (RAB)			$0.00	$0.00	
				$59,271.06	**$59,271.06**
Other Operations	**Clarify**	**No.**	**Rate**	**Subtotal**	
Trenching			$0.00	$0.00	
Bulk sampling			$0.00	$0.00	
Underground development			$0.00	$0.00	
				$0.00	**$0.00**
Reclamation and Environmental	**Clarify**	**No.**	**Rate**	**Subtotal**	
After drilling			$0.00	$0.00	
Monitoring			$0.00	$0.00	
Water Testing			$0.00	$0.00	
Infrastucture			$0.00	$0.00	
				$0.00	
Transportation		**No.**	**Rate**	**Subtotal**	
Airfare			$0.00	$458.06	
Taxi			$0.00	$31.96	
truck rental			$0.00	$31.01	
kilometers			$0.00	$0.00	
ATV			$0.00	$0.00	
fuel			$0.00	$821.79	
Helicopter (hours)			$0.00	$35,850.50	
Fuel (litres/hour)			$0.00	$6,040.79	
Other	parking			$37.68	
				$43,271.79	**$43,271.79**
Accommodation & Food	**Rates per day**				
Hotel			$0.00	$3,450.60	
Camp			$0.00	$0.00	
Meals	actual costs		$0.00	$2,046.50	
				$5,497.10	**$5,497.10**
Geological and Geochemical					
Map Plotting			$0.00	$27.77	
Geological Supplies				$220.17	
Sampling Consumables	sample bags, tags, flagging, etc...			$271.33	
				$519.27	**$519.27**
Equipment Rentals		weeks	per week		
plotter		1.0	124.80	124.80	
Field kits - per day		20.00	$35.00	700.00	
Field kits - per day		9.00	$35.00	315.00	
Truck wi insurance - per day Unit#01		4.00	$100.00	400.00	
Mileage per km-Unit#01		2,940.00	$0.30	882.00	
Satellite phone wi charger - per week		2.71	$75.00	203.25	
Radio wi charger - per week		4.00	$40.00	160.00	
Radio wi charger - per week		0.71	$40.00	28.40	
Core Storage - per year		2.00	$250.00	500.00	
Downhole Tool - per week		2.71	$520.00	1,409.20	
Computer wi printer - per week		2.71	$50.00	135.50	
Survival Kit - per week		2.71	$30.00	81.30	
Trimble GeoXT - per week		2.71	$375.00	1,016.25	
Other rentals (Specify)	trailor, radios,core splitter			$1,543.15	
				$7,498.85	**$7,498.85**
Freight					
			$0.00	$0.00	
			$0.00	$559.94	
				$559.94	**$559.94**

Bootleg Exploration Handling and Adminstration Fees				$18,049.94	
				$18,049.94	**$18,049.94**
TOTAL Expenditures					**$180,848.85**

APPENDIX III
SAMPLING AND GEOCHEMICAL PROTOCOL

Appendix 3

Procedures for Core Logging, Core Sampling, and Specific Gravity Testing

Core Logging: Core logging procedure starts the moment the drill cores are placed in the core boxes. Daily morning visits and occasional afternoon follow-up communication with the drillers were carried-out to ensure that the drill cores are properly placed and oriented in the core boxes and also for the daily summary log of the cores. In summary:

1. The core boxes piled up by the driller's helper are laid-out on the ground and in sequence. Lowest box number is put to the left with the top of core at the lower left side of the sequence and the next box goes to the right until the last box.
2. Once laid out, the core blocks are checked making sure the runs are properly recorded and there are no missing or skipped runs.
3. The beginning (from) and end (to) or meterage boundaries of lithology is recorded, and any significant alteration in such lithology is also noted.
4. The extent of any notable mineralization is also recorded, particularly where there is sphalerite, galena, or smithsonite observed. Percentage of each mineral is estimated, but with smithsonite, only its reaction with the zinc zap as to weak, moderate or strong is noted.
5. After the summary log, lids are nailed to each box and re-piled again in a manner that it could be slung by the helicopter to the core shack.
6. Once the core boxes are delivered to the core shack, the lids are taken off, and they are put on the core table for logging. Two geologists are assigned to the core shack, each having his own core table and each logging one hole at a time in full.
7. The sequence of core box arrangement on the core table for logging is different than when it was laid out on the ground for summary log. The core table accommodates 16 4-foot core boxes or 9 5-foot core boxes. The lowest numbered core box is placed on the top left corner with the beginning or top of core at the upper-left side. The next numbered core box is put below it and so on, until the column is enough for the core table's height, then the next column follows to the right until the core table is full.
8. Once laid out on the core table, the core is cleaned of dirt, grease, etc., and marking of meterage is carried out. Using the core block markings, one-meter marks are written on the solid core or onto the core box divider if highly broken.
9. By writing the one-meter marks, core loss and recovery can be also determined and blank core blocks are used and inserted into intervals that have significant lost core, such as caving or void intercepts. Core recovery is then measured per run and encoded into the excel spreadsheet core logging form.
10. Conversion of the foot interval runs into metric are also checked while doing the 1-meter markings, then the interval beginning and end at each box is written at the upper left and lower right of the core boxes respectively for photographing.

11. After the 1-meter marking is completed, geotechnical logging commences. The rock quality designation (RQD) and fractures per meter (FPM) is taken every meter and encoded directly to the excel spreadsheet core logging form.
12. When the geotech log is taken and encoded, geological core logging starts. Lithological extent in meters is firstly established and described under the description column of the spreadsheet as to contacts, color, texture, lithology, structure, etc. Any alteration within that lithological extent is also described as to type (e.g. dolomitization, silicification) and intensity (e.g. weak, moderate, strong). Mineralization extent within that lithological boundary is noted last. In describing the mineralization, sulphide minerals such as sphalerite and galena's amount is estimated in percentage, while the oxide smithsonite mineral's reaction with the zinc zap is noted as to weak, moderate, or strong. Then all this information is filled in to the corresponding columns to the left in the spreadsheet logging form.
13. After the detailed geological logging, mineralized zones are sampled. In sampling, a maximum of 1-meter sample interval is carried-out when inside a mineralized zone with a minimum width of 5-meter intercepts. One-meter length shoulder or bracket samples above and below the zone are also taken. When less than 5-meter wide mineralized zone is encountered, the sampling width is roughly around 1.2 to 1.5 meters each and no shoulder or bracket samples are taken. For outlier and weakly mineralized zones, a minimum of 1-meter wide sample is also carried-out.
14. Sample interval "from" and "to" meterage is recorded on the 3-tag sample booklets. One tag is stapled at the beginning of the sample interval on the core box to guide the core splitter. The second tag is to be placed in the sample bag, while the last tag stays in the sample booklet as a record.
15. Once sample tags are stapled on the core boxes, they are ready for core photography. In core photography, the core boxes still laid on the core table are sprayed with water. Step ladders are used to gain elevation, in order to fit the core boxes perpendicularly as possible in a column per one photo frame. Usually, four 4-foot or three 5-foot core boxes fit in one frame. After the photos are taken, the files are downloaded to a folder with designated hole number and renamed with the corresponding box numbers from and to, as well as the meterage from of the first box and the to meterage of the last box.
16. After the core photos are taken, the core boxes that have samples to be split are taken from the core table and piled near the core splitter shack. The ends of the core boxes where the markings of the hole number and box numbers are written are sprayed with lead-free paint to identify them from the other boxes that were not sampled. The other core boxes that are not to be sampled are placed in the core rack, see Plate 1 below.

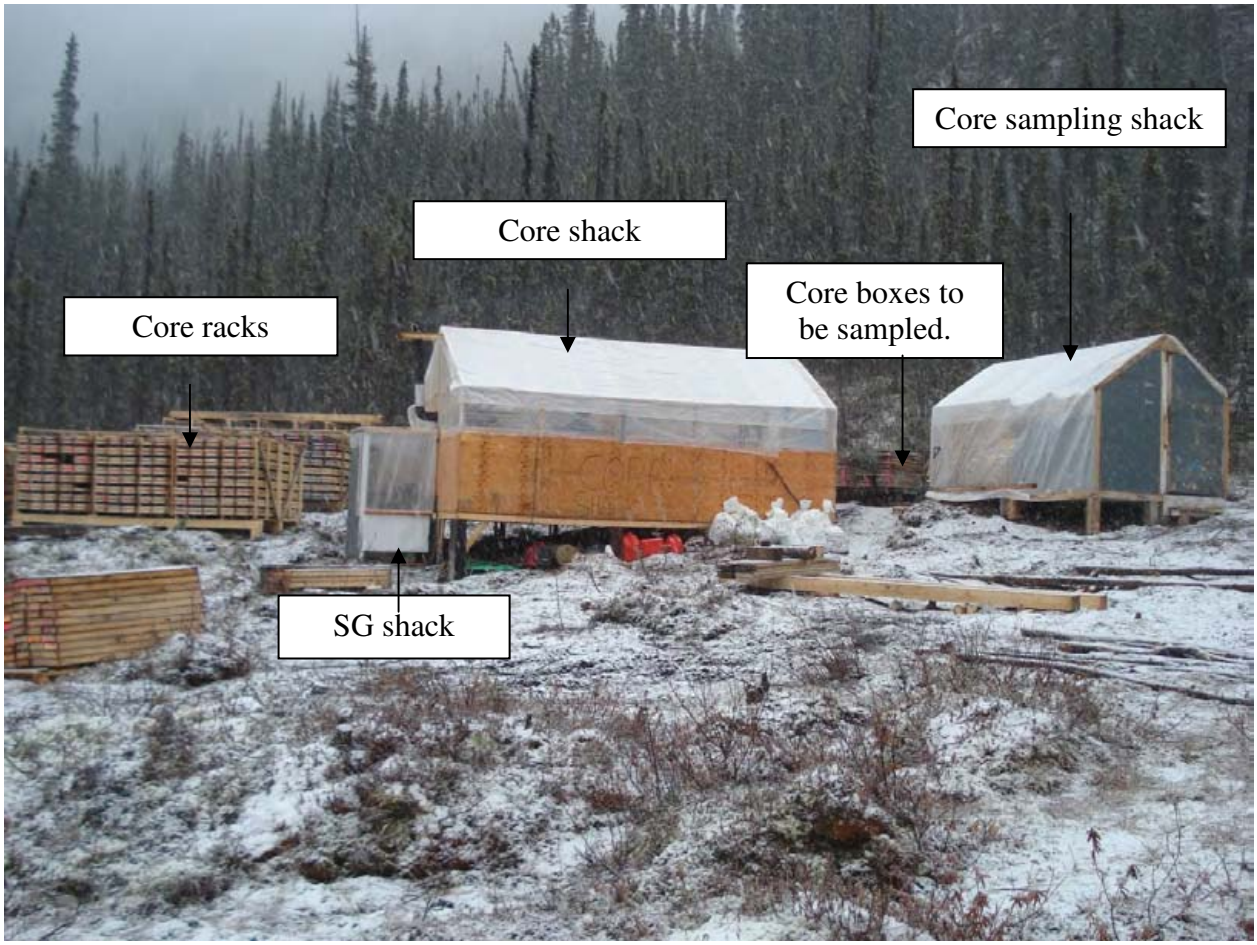

Plate 1 – Core Facility

Core sampling: Sampling/core splitting is straight forward and simple. The sampling techs were trained to strictly begin the sampling from the lowest numbered core box. Each tech, as in core logging, is assigned a complete hole that is his personal responsibility for sampling.

1. Upon bringing the core box inside the core splitter shack, the tech writes the tag numbers of the samples on the sample bags. Each sample will have double bags so the sample numbers are written on both bags so that when a sample bag is inserted into the other bag the numbers can be seen on both sides. These bags are then arranged sequentially on a place within reach of the tech before splitting begins.
2. The techs were taught and supervised throughout the sampling duration by the geologists. It is emphasized to the tech that the splitting of core should break the core into halves wherein the distribution of mineralization is split 50-50 between the sample and the retained core. This is accomplished by first examining the core's mineral distribution and visualizing an imaginary line that will split the mineral's distribution.
3. The imaginary line is then marked by using the thumb nail and inserting the core into the splitter with the thumb-marked line directly beneath the blade.

Plate 2 - Core Splitter

4. Once split, the more broken half is normally chosen to be placed in the sample bag while the more solid one is placed back into its place in the core box.
5. After splitting the entire interval, the second sample tag from the sample booklet is inserted into the first sample bag where it can't be crushed by the samples that are in the second sample bag and then sealed with a zap strap.
6. Duplicate samples were also prepared approximately every 20th sample, as designated by the geologists on the sample booklets. Each regular 20th sample was further split into quarter cores and the fines are split into two parts by using the riffle (Jones) splitter. (see Plate 3, above)
7. Blank samples were inserted into the sample sequence by the sampling tech between the two duplicates. Material for the blanks was obtained from a talus deposit of Nahanni limestone near the core facility that had no visible alteration or mineralization.
8. The sample bags are then lined up and when they reaches roughly 20 kilograms (8 to 10 samples), they are placed into a double rice sack, with address label for the laboratory and then zap strapped. The rice sacks are piled per hole and are dispatched to the laboratory whenever appropriate.

3.2 GEOCHEMISTRY – ANALYTICAL TECHNIQUES

All samples were sent to ACME Laboratories in Vancouver BC, which is a certified lab under the Assayers Certification Program of British Columbia. DDH samples were first crushed to 80% and passed thru 10 mesh, followed by split and pulverize passing thru 200 mesh. Samples were analyzed using the 32 element *Group 1D01* package + 3B01 Au by fire assay. Elements determined using the 1D01 package were digested in aqua regia and followed by ICP-ES analysis. All samples were collected, handled, cataloged and prepared for shipment by TerraLogic Exploration staff.

2010 Analyses by Acme Labs (http://www.acmelab.com)

Package	Elements
Group 1D01: 1:1:1 Aqua regia digest ICP-ES – on 0.5g	Mo,Cu,Pb,Zn,Ni,As,Cd,Sb,Bi,Ag,Au,Hg,Tl,Th,Sr,Sb,V,Ca,P,La,Cr, Mg,Ba,B,Al,Na,K,W,Sc,S,Ga
Group 3B01: lead collection FA fusion ICP-ES – on 30 g	Au

3.3 SOFTWARE PROGRAMS

The following software programs were used in the acquisition, management and presentation of field data:

1) Office 2007 and Open Office for report writing and in field data entry
2) All field data and geochemistry results were ultimately compiled into an Access 2007 .mdb database file.
3) Figure maps were generated using Arc GIS 9.3
4) DDH sections were generated using Geosoft Target 3.2

APPENDIX IV
DDH LOGS, SECTIONS AND SAMPLES

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
1.48	1.78	Silica	3	Carbonate	2			host rock is bleached and moderately silicified - pervassive small carb stringers
1.78	4.93	Silica	4	Carbonate	4			rock is pervasively silicified and bleached, extremely difuse grain boundaries and interstitial carbonate present; sub-mm scale carbonate veinlets very common
5.13	6.82	Silica	4	Carbonate	3			carb filled fractures/vnts common, pervasive carb on grain boundaries
6.82	7.02	Silica	2	Carbonate	2			weakly bleached and weakly difuse grain boundaries, no interstitial carbonate, only on fractures and vnts
7.02	7.76	Silica	3	Carbonate	4			primarily interstitial carbonate, a lot of biotite
7.76	8.09	Silica	2	Carbonate	2	Sericite	1	weakly silicified with moderate carb veining, older bt partially altered to sericite
8.09	8.58	Silica	3	Carbonate	3			carbonate veinlets/tension gashes, contact aereol is low angle to CA
8.58	9.56	Silica	2	Carbonate	1			relatively fresh and does not react to HCL, rare carb vnts present
9.56	10.16	Silica	2	Carbonate	3	Sericite	1	carb present as interstitial and vnts, bt are weakly altered to ser on margins, fresh bt uncommon but noted as euhedral
10.16	11.57	Silica	4	Carbonate	1	Biotite	3	
11.57	11.87	Carbonate	4	Sericite	3	Silica	3	10-20 cm rotted contact associated with dyke
11.87	13.41	Silica	4	Bioite	3	Carbonate	2	pervasive hornfelsing, rare carb vnts
13.41	13.85	Carbonate	5	Silica	3	Biotite	3	
14.4	15.17	Silica	4	Sericite	4	Carbonate	2	alteration for the diorite unit, marks the lower limit of major alteration zone
15.17	34.75	Silica	3	Biotite	2	Carbonate	1	alteration is limited to weak to moderate hornfelsing
34.75	36.05	Silica	2	Sericte	1	Carbonate	2	
36.05	36.15	Silica	4	Carbonate	4	Sercite	2	
36.15	36.75	Silica	3	Carbonate	2			
38.47	42.2	Carbonate	2					as calcite

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
42.2	72.48	Sercite	1					
73.08	74.19	Silica	2	Carbonate	1			
74.19	75.63	Carbonate	1					
75.63	76.97	Chlorite	4	Argillic	4	Carbonate	2	duffuse upper and lower contact, green stain from HCL reaction, carbonate alt primarily tectonic

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
2.16	2.44	Silica	5	chlorite	2			
2.44	4.13	Silica	1					
5.03	6.01	Silica	4	Sericite	3			
6.01	7.13	Silica	2					
7.92	10.15	Silica	2					
11.12	12	Silica	4					
12	22.54	Sericite	2					
22.54	37.27	Silica	2					
37.27	41.76	Sericite	3					

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
4.03	4.85	Sericite	3	Silica	2			
4.85	5.45	Sericite	4					
5.45	6.69	Biotite	3					
8.87	10.26	Biotite	2					
10.5	10.71	Silica	3					
22.34	36.46	Sericite	3	Chlorite	2	Biotite	1	
36.46	38.2	Biotite	4					lower contact over 40 cm
38.2	38.97	Chlorite	3	Sericite	1	Biotite	3	the bioite alteration is over the lower contact
46.67	47.05	Chlorite	3	Muscovite	3			
47.05	48	Chlorite	4	Biotite	2			

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
2.42	8.48	silica	1					
8.48	10.53	Silica	1	Sericite	2			
10.53	10.91	Silica	4					
21.65	23.41	Silica	4	Sericite	3			
23.41	27.65	Sericite	4	Silica	3			
27.65	31.48	Sericite	2	Silica	2			
31.48	35.6	Sericite	3					
91.12	92.03	Albite	3	Silica	3			

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
14.06	14.46	Carbonate	4	Silica	2			
14.46	19.98	Silica	2	Cabonate	1			
20.84	23.02	Carbonate	1	Silica	1			

Appendix 4.1.1 - Alteration

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Alteration 1*	*Degree*	*Alteration 2*	*Degree*	*Alteration 3*	*Degree*	*Note:*
5.81	6.5	Silica	3					
16.76	18.5	Fe-oxide	3					
19	19.6	Fe-oxide	3					
66.88	68.75	Chlorite	2					
89.69	90.19	Silica	3					
90.19	101.5	Silica	1					

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
1.22	1.48	PD	Porphyry Dyke	grey	green			altered difuse porphyry, reacts weakly to HCL, mg porphyrytic plag clasts with dark grey groundmass
1.48	1.78	QV	Vein Material					3 sub-parallel veins in bleached/silicified PD host, sheeted polyphase veins with fg clear/white quartz and cg calc spar, minor clorite alt
1.78	4.93	fgD	Diorite	dark	grey			reacts moderately to HCL, mafic min dominated by bt, light grey groundmass, chlorite present in fine carbonate filled fractures
4.93	5.13	QV	Vein			vuggy		20 cm qtz-carb-fe vein, sharp margins, limonite after pyrtie forms pseudo breccia in highly silicified pd framework, py blebs make 2% of vein
5.13	6.82	fgD	Diorite					sligtly darker, more bt
6.82	7.02	PD	Porphyry Dyke	salt and pepper				relatively fresh, grains are subhedral to euhedral, contact moderately difuse at high angle to CA (~80%)
7.02	7.76	PD	Porphyry Dyke					
7.76	8.09	CGBD	Diorite					coarse grained biotite diorite, upper contact very fractured, lower contact is sharp with little to no alt, maifcs comprsise of bt knots partially turned to phlogopite, orange spotted texture from oxidized vfg interstitial py grains
8.09	8.58	GW	Greywacke	dark	grey			highly altered greywacke, 30 cm alteration halo associated with 10 cm highly silicified pyritiferous dyke, alteration bands, po common and occurs as wispy blebs
8.58	9.56	PD	Porphyry Dyke					variable in texture from porphyry rich to porphyry poor plag, subhedral phenocrysts are 40% in light rock and 10 % in darker rocks
9.56	10.16	CGBD	Diorite					sharp upper and lower contacts at 35 deg to CA, trace py, no chill margin
10.16	11.57	GW	Greywacke			massive		hornfelsed greywacke, competent rock, lacks fracturing or veining, po occurs as rare cm-scale blebs and thin laminations
11.57	11.87	CGBD	Diorite					completely altered, some chlorite replacement, sericite after biotite, alteration halo reacts strongly to hcl, gradational contract

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
11.87	13.41	GW	Greywacke					hornfelsed, cm-scale mg dykelets common, 2/m with no prefered orientation, leucocratic dykes increase at 13 m, similar texture to what is observed at surface in "hybrid zone"
13.41	13.85	GW	Greywacke			Fractured		fractured and healed, possible fault/shear zone, slicks common on fracture surfaces, Po present as mm-scale blebs in massive gw clasts
13.85	14.4	QV	Vein Material			brecciated		50 cm true thickness Quartz-Fe-Carb vein and bx zone, Bx is matrix supported to mosaic in texture. Vein margins are sharp and well defined, bx best defined at centre of vein
14.4	15.17		Greywacke					mix lithology of greywacke intruded by cm-scale aplite dykes and altered CGBD. 40% GW, 40% AD, 20% CGBD
15.17	34.75	GW	Greywacke					weakly hornfelsed gw, primarly massive, locally laminated, Po is commonly present as mm-scale blebs and laminae, 18-20 m thick strongly foliated po rich shaer zone
34.75	36.05	CGBD	Diorite					fresh to weakly altered diorite, alteration increases down hole as grain boundaries become difuse, lower contact ~30 to CA
36.05	36.15	QV	Vein material					sub parallel tension gashes of qtz-siderite perpendicular to compositional layering in gw
36.15	36.75	GW	Greywacke					typical weakly altered gw
36.75	38.47	CGBD	Diorite					fresh unaltered diorite
38.47	42.2	GW	Greywacke			massive		f-mg, bt-muscovite hornfels, plag dominant, 15-20% vfg diss po, locally well healed bx with sub-mm calcite framework, rare cpy, @39.37
42.2	72.48	QD	Quartz Diorite	grey				3-5 mm xtals of sodic feldspar, 10-15% quartz, 3-5% altered hnbl, competent with rare fracturing, occasional broad diffuse alteration halos along fractures, serecite alt of muscovite
72.48	73.08	CGHD	Diorite			porphyritic		3-7 mm sub-euhedral hnbl with pale white feldspar groundmass, porphyritic texture, 20-25% interstitial quartz, bt not present
73.08	74.19	PD	Porphyry Dyke	grey				med-dark grey groundmass
74.19	75.63	CGHD	Diorite					local carbonate lined fractures near upper contact

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
75.63	76.97	APD	Porphyry Dyke					dark grey clay altered porphyry dyke, remnant hnbl crystals, strong structural influence to incompetent rock and locally rubble
76.97	86.26	CGBD	Diorite	salt and pepper				decreased hnbl, bt common as alteration borders to hnbl, chloritized

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
0	0.61		Casing					
0.61	1.48	PD	Porphyry Dyke					subhedral felsic groundmass, interstitial chlorite
1.48	2.16	GW	Greywacke	grey	black	massive		med gy to locally black, massive with minor mm-scale felsic laminae
2.16	2.44	QB	Quartz Breccia					well healed quartz bx with 2-3 mm irregular vnts of 25-30% py, 1-2% cpy, 5-7% aspy orientated at 25 deg to CA
2.44	5.03	GW	Greywacke	grey				med grey argillaceous, rare bleb arseno, cpy, rare qtz vnts variably lined with aspy
5.03	6.01	PD	Porphyry Dyke					highly altered, pervassive silica flodding, assimilation of 3 ~4 cm intervals of greywacke with restructing musc-ser hornfels at contacts
6.01	7.13	GW	Greywacks	dark	grey	fractured		brittle, coarsed with sub parallel to CA 2-3 cm irregular qtz veins. Reare blebs of aspy and py
7.13	7.93	CGBD	Diorite	salt and pepper				phaneritic biotite, with aphanititc felsic groundmass. Qtz 2-3 %, trace py
7.93	10.15	HD	Diorite	dark	green			moderately soft chlorite groundmass, with ~20% 2-4 mm euhedral white feldspar
10.15	11.12	GW	Greywacke	dark	grey	massive		rare calcite lined fractures and diss po
11.12	12	PD	Porphyry Dyke	light	green			remnant porphyry texture, loss of amphibole, diss po and less aspy to 3% at contact
12	22.54	GW	Greywacke					
22.54	37.27	PD	Porhyry Dyke	light	green			diffuse felsic crystal habit, qtz 10%, pervasive inferred alteration, trace diss euhedral py, minor sericite
37.27	41.76	GW	Greywacke	gray		massive		fg, occaisional calcite lined fractures, fine musc-sericite development, rare euhedral py

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
0	0.61		Casing					
0.61	3.51	PD	Porphyry Dyke					bimodal porphyry dyke, locally with subvertical qtz-carb vnts, in contact with 8 cm textonic breccia at 75 deg to CA
3.51	4.03	GW	Greywacke	dark	grey	massive		occaisional calcite lined fracture, one 2 cm vein
4.03	4.95	FD	Felsic Dyke					aphanitic development of musc and sericite, limonite/qtz-carb over 3 cm at upper contact, lower contact is diffuse
4.95	5.45	GW	Greywacke	brown	green			strongly altered
5.45	6.69	PD	Porphyry Dyke	salt and pepper				primary hnbl to biotite-musc, sub-aphanitic bt groundmass, rare lithic gw inclusions
6.69	7.29	GW	Greywacke	brown	green			
7.29	7.48	PD	Porphyry Dyke					sharp upper and lower contacts
7.48	7.73	D	Diorite	dark	green	aphanitic		loss of primary feldspar
7.73	7.83	GW	Greywacke					bleached, 40 deg to CA slump fold textures
7.83	8.87	D	Diorite	dark	green			well developed mafics, rare mm scale carb vnts @ 45 deg to CA
8.87	10.26	CGBD	Diorite	light	green			mottled, alteration of primary mafic to bt-musc, diffuse lower contact with gw over 10 cm
10.26	10.5	GW	Greywacke	grey	brown	massive		
10.5	10.71	D	Diorite					pervasive alteration, near complete assimilation of aphibole, aphanitic groundmass
10.71	11.97	GW	Greywacke	light	grey	massive		occaisional argillaceous laminae with conversion to po, fine sericitic overprint,
11.97	12.36	D	Mafic Dyke					upper contact as rubble, gw localy coursed with irregular mm-scale carbonate vnts
12.36	22.34	GW	Greywacke					same as before dyke
22.34	36.46	QD	Tonalite	grey	white			sub aphanitic groundmass, indistinct remnant subhedral feldspar with interstitial qtz (5-10%), sericite development, loss od fine amphibole, occasional Fe-oxide border on open fractures

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
36.46	38.2	GW	Greywacke	grey				feldspathic groundmass, locally displays subplanar, moderate angle bouma facies (37-37.1) upper contact is sharp, lower contact altered over 40 cm from intrusive contact, 2-3% diss po, rare py
38.2	38.97	CGHD	Diorite	green	white			sub-aphanitic felsic groundmass of 2-5 mm euhedral feldspar, 20-25% chlorite altered hnbl, pale brn musc-bt hornfels over 30 cm at lower contact
38.97	46.67	GW	GW	grey				locally with 5-10 cm soft-sediment deformatino texture from load casting of qtx feldspathic argillite bouma profile, rare calcite vnts, argillaceous siltite section (42.35-42.9 m)
46.67	47.05	CGHD	Diorite	white	brown			altered, remnant crystal habit, muscovite development of amphibole
47.05	48	GW	Greywacke					med grey, mod sorted, upper and lower contact iver 5 cm show musc-bt development as transitional hybrid of metasomatic contact
48	50.5	CGHD	Diorite					pale white felsic groundmass, with lt green chlorite-bt alteration of subhedral to euhedral 1-3 mm amphibole, hornfels over 5 cm at contact, bt rimms chlorite alter

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
0	0.6		Casing					
0.6	2.32	D	Diorite	dark	green			porphyrytic with 3-6 mm euhedral weakly altered amphibolite within groundmass and 1-2 mm euhedral feldspar
2.32	2.42	PD	Porphyry Dyke	gray				10% subhedral amphibolite within porphyrytic felsic groundmass
2.45	8.48	D	Diorite	dark	green			as before, as before, section is incompetent with open accasional ipen calcite lined fractures, lower contact displays diffuse albite-silica alteration over 15 cm
8.48	10.53	GW	Greywacke	dark	grey	massive		argillaceous, local silicification with 19 cm dyke at 8.67 m, 10-20 cm fractured blocks, rare blebs of po
10.53	10.91	PD	Porphyry Dyke					discordant with GW inclusions, fe-oxide stain on healed fractures
10.91	11.53	GW	Greywacke	dark	grey			predominantly argillite to vfg upper contact to 14.6 m, grades to fg with lesser argillaceous discordant slump and soft sed deformation textures, locally enriched with po within arg laminae
11.53	12.6	PD	Porphyry Dyke					pyrite lined fractures at lower contact to 13.15 m
12.6	16.79	GW	Greywacke					
16.79	16.89	PD	Porphyry Dyke					silicic overprint
16.89	20.45	GW	Greywacke					
20.45	20.5	FD	Felsic Dyke					15 cm alteration envelope to GW
20.5	21.65	GW	Greywacke					
21.65	23.41	PD	Felsic Dyke					assimilation of GW in part, minor stockwork over 5 cm at upper contact, silici overprint with chlorite alt, rare diss po
23.41	27.65	GW	Greywacke					significant alt to musc-bt hornfels from upper and lower contact of felsic dykes. Local qtz-albite stockwork. Minor po as selvage to qtz-sediment interface.
27.65	31.48	PD	Felsic Dyke					discordant with occ, 10-20 rafts of gw, silicic overprint with sericite and musc. Rare sulphide po
31.48	35.6	GW	Greywacke	grey	brown			

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
35.6	82.51	PD	Porphyry Dyke	green	grey			diffuse felsic crystal habit, sericitic alteration of mica occurs at 3% per field of view, fine igneous groundmass, remnant chloritized fibrous amphibole, 1 % diss po
82.51	91.12	CGHD	Diorite	dark	green	porphyryitc		5-10 mm euhedral hnbl within felsic groundmass
91.12	92.03	FD	Felsic Dyke					cream-pale white, discordant, bx in part and well healed, albitized and silicic overprint, no sulphides

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
0	7.26	D	Diorite	dark	green			mafic aphanitic groundmass with 20 % 1-2 mm white subhedral-euhedral feldspar, groundmass with abundant biotite (4%0, chlorite alteration of remnant fibrous amphibole
7.26	14.06	GW	Greywacke	grey				vfg to fg trasitional facies in part
14.06	14.46	PD	Diorite Dyke					diorite dyke, strong carb-silica alteration
14.46	19.98	GW	Greywacke					gw, qtz breccia and silicic alteration, upper contact over 20 cm as 2 qtz veins at 60 deg to CA, with mm scale carbonate with minor blebs of arseno and py, 70 cm pervasive qtz-carb alt, rare blebs po and py
19.98	20.84	D	Diorite	grey	green			fg groundmass, with aphanitic feldspar, discordant at upper contact, some strong carbonate alteration at lower contact
20.84	23.02	GW	Greywacke	dark	grey	massive		carbonate-qtz breccia over 10 cm at lower contact,
23.02	23.8	FD	Felsic Dyke	green				aphanitic groundmass, variably with inclusions of muscovite altered GW, fine diss py up to 3%
23.8	27.84	GW	Greywacke	dark	grey			argillaceous to localy fg, rare soft-sed deformation. Local slickenslides
27.84	44.96	PD	Porphyry Dyke	green				sub-aphanitic felsic habit, lesser 2-4 mm sub-euhedral phenocrysts, felsic groundmass with 10% interstitial qtz. 2-4 % musc-sericite remnant fibrous amph to 3 %, trace diss po
44.96	46.96	GW	Greywacke	grey		massive		fg-mg with quartzose-argillic turbidite soft sed deformation with recombant intra-formations

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
0	4.27		Casing					
4.27	5.81	D	Diorite	dark	green			aphanitic mafic groundmass, 30-40 % mm scale subhedral freldspar
5.81	6.5	PD	Felsic Dyke					qtz-feldspar groundmass, subhedral 2-3 mm phenocrysts, assimilation of gw at 30 cm lower contact
6.5	14.53	GW	Greywacke					upper 40 cm argillaceous with 4-6 quartzite thin beds, minor po at contact, sharp gradation to moderately sorted quartzite,
14.53	16.76	GW	Greywacke	grey	black			argillaceous, massive with rare quartzose clastic dykes, 10 cm coarse felsic dyke at upper contact, comon diss po
16.76	18.5	PD	Porphyry Dyke					diffuse crystal habit of subhedral feldspar phenocrysts, 5-7 % f-mg anhedral amph, fe-oxide alt central zone to lower contact
18.5	20.8	GW	Greyacke	light	grey			mod sorted, competent, 19-19.6 m fe-oxide alt, rare blebs pyrite
20.8	21.25	GW	Greywacke	black				carbonaceous, soft, irregular polished slickenslide
21.25	29.12	FD	Felsic Dyke	pale	green			pale-khaki green at upper contact over 40 cm, transition to pale grey, fg aphanitic groundmass. 5-7% sub-mm mafic mineral, 2-3% diss py, competent, rare calcite lined fractures and inclusion of lithic clasts
29.12	44.4	GW	Greywacke	dark	grey			predominantly massive, argillaceous with minor laminae, grades to med grey qta-feldspathic massive interval at 38.15 m to contact with intrusive
44.4	45.12	PD	Porphyry Dyke					upper 30 cm contact muscovite alt, fg aphanitic groundmass with 10-15 % 2-4 mm subhedral phenocrysts
45.12	66.88	GW	Greywacke	dark	grey			massive with thin interbeds quartzose laminae, common diss po, locally healed fractures with well developed euhedral pyrite
66.88	68.75	GW	Greywacke	pale	green			altered gw, remnant bedding profiles persist with upper contact over 20 cm as qtz flooding with 6-8% irregular blebs of po and py, healed fractures commonly lined with pyrite
68.75	89.69	GW	Greywacke	dark	grey	massive		grades to dark gy argillaceous gw at 74 m, with onset of feldspathic planar beds at 80.05 m, common subhedral 1-2 mm pyrite as diss in groundmass

Appendix 4.1.2 - Lithology

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Map Unit*	*Major Rock Type*	*Primary Colour*	*Secondary Colour*	*Primary Texture*	*Secondary Texture*	*Notes:*
89.69	90.19	FD	Felsic Dyke	pale	green			silicic overprint, of felsic intrusive displaying foliated fabric, py lines sub-mm sclae fractures, trace arseno
90.19	101.5	GW	Greywacke	dark	grey			argillaceous in part, common diss and fracture py, lower 5 m displays 15-25 cm fractured blocks, with qtz-carb fractures and narrow vnts, local bx, increase denstity from 99.5 on, base of hole with 3 cm felsic dyke at 70 deg to CA, minor blebs of po and py

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
1.48	1.78	blebby	pyrite	2					
6.82	7.02	interstitial	pyrite	0.1					
9.56	10.16	disseminated	pyrite	0.1					
13.85	14.4	blebby	pyrite	2	pyrrhotite	1			one cm scale bleb of sph, rare vfg aspy needles presetn in bottom 3rd of vein
42.2	72.48	disseminated	pyrrhotite	1					
72.48	73.08	disseminated	pyrrhotite	0.1					
73.08	74.19	disseminated	pyrrhotite	0.1					

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
1.48	2.16	Disseminated	pyrite	3					
2.16	2.26	veined	pyrite	3	chacopyrite	1	arsenopyrite	2	
2.26	2.44	veined	arsenopyrite	3					
2.44	5.03	veined	arsenopyrite	2	pyrite	2	chalcopyrite	1	
5.03	6.01	disseminated	arsenopyrite	0.1					
6.01	7.13	blebby	arsenopyrite	2	pyrite	1			
11.12	11.16	disseminated	pyrrhotite	2	arsenopyrite	2			up to 3 % aspy on vein contact

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
3.51	4.03	Dissmeminated	pyrrhotite	1					
22.34	36.46	Disseminated	pyrrhotite	1					
36.46	38.2	Disseminated	pyrrhotite	3					

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
11.53	12.6	fractures	pyrite	2					
35.6	82.51	disseminated	pyrrhotite	1					

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
14.46	19.98	veined	pyrite	1	arsenopyrite	1			
20.84	23.02	disseminated	pyrrhotite	0.1					
23.02	23.8	disseminated	pyrrhotite	2					

Appendix 4.1.3 - Mineralogy

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Mineralization Style*	*Mineralization 1*	*%*	*Mineralization 2*	*%*	*Mineralization 3*	*%*	*Notes:*
14.53	16.76	disseminated	pyrrhotite	2					
21.25	29.12	disseminated	pyrite	2					
29.12	44.4	veined	pyrite	1					selective to rare qtz-carbonate vnts
45.12	66.88	disseminated	pyrrhotite	1					
66.88	68.75	fractures	pyrite	2	pyrrhotite	1			
89.69	90.19	fractures	pyrite	1	arsenopyrite	0.1			

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*
10.71	16.37	fault		rubble zone from 10.71-16.37 m

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*
35.4	35.45	fault		

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*
1.8	2.5	fault		

Appendix 4.1.4 - Structure

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Logger*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Structural Measurement*	*Angle (to CA)*	*Note:*

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*
13.8	14.1	1	0	10	45	white			Quartz	Carbonate												

Appendix 4.1.5 - Veining - Intervals

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

From (m)	*To (m)*	*Average Width (cm)*	*Number*	*Density (/m)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*
3.63	3.65	60	white		BRECCIATED	Quartz		pyrite	3	arsenopyrite	2	bornite	1						
14.3	14.32	80	light		FRACTURED	Quartz		pyrite	2	pyrrhotite	1								

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*
37.57	2					Quartz		arsenopyrite	1										

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*
22.55	3.5					Quartz	Carbonate	pyrrhotite	0.1										

Appendix 4.1.6 - Veining - Points

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Completed*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

Depth (m)	*Width (cm)*	*Angle (to CA)*	*Colour*	*Grainsize*	*Primary Texture*	*Mineralogy 1*	*Mineralogy 2*	*Mineralogy 3*	*Sulphides 1*	*%*	*Sulphides 2*	*%*	*Sulphides 3*	*%*	*Alteration Setting*	*Alteration 1*	*Alteration 2*	*Alteration 3*	*Note:*
8.81	2					Quartz													
67.4	1					Quartz		pyrite	1										
99.7	2	45				Quartz		pyrite	4	arsenopyrite	0.1								

Hole Name :KCZ10001	Length(m) :86.26	Azimuth(Deg) :247	Dip(Deg) :-45
Collar X :504270.90	Collar Y :6068562.80	Collar Z :1337.00	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
10	Porphyry Dyke / Vein Material / Diorite / Vein Material / Diorite / Porphyry Dyke / Diorite / Greywacke / Porphyry Dyke / Diorite / Greywacke / Diorite / Greywacke / Greywacke / Vein Material / Greywacke	altered difuse porphyry, reacts weakly to HCL, mg porphyrytic plag clasts with dark grey groundmass; 3 sub-parallel veins in bleached/silicified PD host, sheeted polyphase veins with fg clear/white quartz and cg calc spar, minor clorite alt; reacts moderately to HCL, mafic min dominated by bt, light grey groundmass, chlorite present in fine carbonate filled fractures; 20 cm qtz-carb-fe vein, sharp margins, limonite after pyrtie forms pseudo breccia in highly silicified pd framework, py blebs make 2% of vein; sligtly darker, more bt; relatively fresh, grains are subhedral to euhedral, contact moderately difuse at high angle to CA (~80%); ?; coarse grained biotite diorite, upper contact very fractured, lower contact is sharp with little to no alt, maifcs comprsise of bt knots partially turned to phlogopite, orange spotted texture from oxidized vfg interstitial py grains; highly altered greywacke, 30 cm alteration halo associated with 10 cm highly silicified pyritiferous dyke, alteration bands, po common and occurs as wispy blebs; variable in texture from porphyry rich to porphyry poor plag, subhedral phenocrysts are 40% in light rock and 10 % in darker rocks; sharp upper and lower contacts at 35 deg to CA, trace py, no chill margin; hornfelsed greywacke, competent rock, lacks fracturing or veining, po occurs as rare cm-scale blebs and thin laminations; completely altered, some chlorite replacement, sericite after biotite, alteration halo reacts strongly to hcl, gradational contract; hornfelsed, cm-scale mg dykelets common, 2/m with no prefered orientation, leucocratic dykes increase at 13 m, similar texture to what is observed at surface in "hybrid zone"; fractured and healed, possible fault/shear zone, slicks common on fracture surfaces, Po present as mm-scale blebs in massive gw clasts; 50 cm true thickness Quartz-Fe-Carb vein and bx zone, Bx is matrix supported to mosaic in texture. Vein margins are sharp and well defined, bx best defined at centre of vein; mix lithology of greywacke intruded by cm-scale aplite dykes and altered CGBD. 40% GW, 40% AD, 20% CGBD								1329.93
20										1322.86
30		weakly hornfelsed gw, primarly massive, locally laminated, Po is commonly present as mm-scale blebs and laminae, 18-20 m thick strongly foliated po rich shaer zone								1315.79
40	Diorite / Greywacke / Diorite / Greywacke	fresh to weakly altered diorite, alteration increases down hole as grain boundaries become difuse, lower contact ~30 to CA; sub parallel tension gashes of qtz-siderite perpendicular to compositional layering in gw; typical weakly altered gw; fresh unaltered diorite; f-mg, bt-muscovite hornfels, plag dominant, 15-20% vfg diss po, locally well healed bx with sub-mm calcite framework, rare cpy, @39.37								1308.72
50										1301.64
60	Quartz Diorite	3-5 mm xtals of sodic feldspar, 10-15% quartz, 3-5% altered hnbl, competent with rare fracturing, occasional broad diffuse alteration halos along fractures, serecite alt of muscovite								1294.57
70	Diorite / Porphyry Dyke / Diorite	3-7 mm sub-euhedral hnbl with pale white feldspar groundmass, porphyritic texture, 20-25% interstitial quartz, bt not present; med-dark grey groundmass; local carbonate lined fractures near upper contact								1287.50
80	Porphyry Dyke / Diorite	dark grey clay altered porphyry dyke, remnant hnbl crystals, strong structural influence to incompetent rock and locally rubble; decreased hnbl, bt common as alteration borders to hnbl, chloritized								1280.43

Scale 1:274	03/03/11	11:57:26

Hole Name :KCZ10002	Length(m) :41.76	Azimuth(Deg) :247	Dip(Deg) :-70
Collar X :504270.90	Collar Y :6068562.80	Collar Z :1337.00	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
	Casing	?								
	Porphyry Dyke	subhedral felsic groundmass, interstitial chlorite								
	Greywacke	med gy to locally black, massive with minor mm-scale felsic laminae								
	Quartz Breccia	well healed quartz bx with 2-3 mm irregular vnts of 25-30% py, 1-2% cpy, 5-7% aspy orientated at 25 deg to CA	5	2						
	Greywacke	med grey argillaceous, rare bleb arseno, cpy, rare qtz vnts variably lined with aspy	1							
5	Porphyry Dyke	highly altered, pervassive silica flodding, assimilation of 3 ~4 cm intervals of greywacke with restructing musc-ser hornfels at contacts	4	3						1332.30
	Greywacke	brittle, coarsed with sub parallel to CA 2-3 cm irregular qtz veins. Reare blebs of aspy and py	2							
	Diorite	phaneritic biotite, with aphanititc felsic groundmass. Qtz 2-3 %, trace py								
	Diorite	moderately soft chlorite groundmass, with ~20% 2-4 mm euhedral white feldspar	2							
10	Greywacke	rare calcite lined fractures and diss po								1327.60
	Porphyry Dyke	remnant porphyry texture, loss of amphibole, diss po and less aspy to 3% at contact	4							
15	Greywacke	?	2							1322.90
20										1318.21
25										1313.51
30	Porphyry Dyke	diffuse felsic crystal habit, qtz 10%, pervasive inferred alteration, trace diss euhedral py, minor sericite	2							1308.81
35										1304.11
40	Greywacke	fg, occaisional calcite lined fractures, fine musc-sericite development, rare euhedral py	3							1299.41

Scale 1:135	03/03/11	11:57:28

Hole Name :KCZ10003	Length(m) :50.6	Azimuth(Deg) :277	Dip(Deg) :-70
Collar X :504270.90	Collar Y :6068562.80	Collar Z :1337.00	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
	Casing	?								
	Porphyry Dyke	bimodal porphyry dyke, locally with subvertical qtz-carb vnts, in contact with 8 cm textonic breccia at 75 deg to CA								
	Greywacke	occaisional calcite lined fracture, one 2 cm vein								
	Felsic Dyke	aphanitic development of musc and sericite, limonite/qtz-carb over 3 cm at upper contact, lower contact is diffuse	3	2						
	Greywacke	strongly altered	4							
	Porphyry Dyke	primary hnbl to biotite-musc, sub-aphanitic bt groundmass, rare lithic gw inclusions	3							
	Greywacke	?								
	Porphyry Dyke	sharp upper and lower contacts								
	Diorite	loss of primary feldspar								
	Greywacke	bleached, 40 deg to CA slump fold textures								
	Diorite	well developed mafics, rare mm scale carb vnts @ 45 deg to CA								
	Diorite	mottled, alteration of primary mafic to bt-musc, diffuse lower contact with gw over 10 cm	2							
	Greywacke	?								
	Diorite	pervasive alteration, near complete assimilation of aphibole, aphanitic groundmass	3							
	Greywacke	occaisional argillaceous laminae with conversion to po, fine sericitic overprint,								
	Mafic Dyke	upper contact as rubble, gw localy coursed with irregular mm-scale carbonate vnts								
	Greywacke	same as before dyke								
	Tonalite	sub aphanitic groundmass, indistinct remnant subhedral feldspar with interstitial qtz (5-10%), sericite development, loss od fine amphibole, occasional Fe-oxide border on open fractures	3	2	1					
	Greywacke	feldspathic groundmass, locally displays subplanar, moderate angle bouma facies (37-37.1) upper contact is sharp, lower contact altered over 40 cm from intrusive contact, 2-3% diss po, rare py	4							
	Diorite	sub-aphanitic felsic groundmass of 2-5 mm euhedral feldspar, 20-25% chlorite altered hnbl, pale brn musc-bt hornfels over 30 cm at lower contact	3	1	3					
	Greywacke	locally with 5-10 cm soft-sediment deformatino texture from load casting of qtx feldspathic argillite bouma profile, rare calcite vnts, argillaceous siltite section (42.35-42.9 m)								
	Diorite	altered, remnant crystal habit, muscovite development of amphibole	3							
	Greywacke	med grey, mod sorted, upper and lower contact iver 5 cm show musc-bt development as transitional hybrid of metasomatic contact	4	2						
	Diorite	pale white felsic groundmass, with lt green chlorite-bt alteration of subhedral to euhedral 1-3 mm amphibole, hornfels over 5 cm at contact, bt rimms chlorite alter								
10										1327.58
20										1318.15
30										1308.69
40										1299.21
50										1289.70

Au_ppb: 100, 200, 300, 400

As_ppm: 500, 1000, 1500, 2000

Ag_ppm: 2.5, 5, 7.5, 10, 12.5, 15, 17.5

Scale 1:163	03/03/11	11:57:29

Hole Name :KCZ10004	Length(m) :92.03	Azimuth(Deg) :210	Dip(Deg) :-45
Collar X :504318.90	Collar Y :6068573.50	Collar Z :1350.00	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
10	Diorite	? porphyrytic with 3-6 mm euhedral weakly altered amphibolite within groundmass and 1-2 mm euhedral feldspar					100 200 300 400	500 1000 1500 2000	2.5 5 7.5 10 12.5 15 17.5	1343.01
	Diorite	10% subhedral amphibolite within porphyrytic felsic groundmass	1							
	Diorite	as before, as before, section is incompetent with open accasional ipen calcite lined fractures, lower contact displays diffuse albite-silica alteration over 15 cm								
	Greywacke	argillaceous, local silicification with 19 cm dyke at 8.67 m, 10-20 cm fractured blocks, rare blebs of po	1	2						
	Porphyry Dyke	discordant with GW inclusions, fe-oxide stain on healed fractures	4							
	Greywacke	predominantly argillite to vfg upper contact to 14.6 m, grades to fg with lesser argillaceous discordant slump and soft sed deformation textures, locally enriched with po within arg laminae								
	Porphyry Dyke	pyrite lined fractures at lower contact to 13.15 m								
20	Greywacke	?								1336.03
	Felsic Dyke	15 cm alteration envelope to GW								
	Greywacke	?								
	Felsic Dyke	assimilation of GW in part, minor stockwork over 5 cm at upper contact, silici overprint with chlorite alt, rare diss po	4	3						
	Greywacke	significant alt to musc-bt hornfels from upper and lower contact of felsic dykes. Local qtz-albite stockwork. Minor po as selvage to qtz-sediment interface.	4	3						
30	Felsic Dyke	discordant with occ, 10-20 rafts of gw, silicic overprint with sericite and musc. Rare sulphide po	2	2						1329.05
	Greywacke	?	3							
40	Porphyry Dyke									1322.06
50										1315.06
60	Porphyry Dyke	diffuse felsic crystal habit, sericitic alteration of mica occurs at 3% per field of view, fine igneous groundmass, remnant chloritized fibrous amphibole, 1 % diss po								1308.05
70										1301.03
80										1293.99
90	Diorite	5-10 mm euhedral hnbl within felsic groundmass								1286.93
	Felsic Dyke	cream-pale white, discordant, bx in part and well healed, albitized and silicic overprint, no sulphides	3	3						

Scale 1:297	03/03/11	11:57:30

Hole Name :KCZ10005	Length(m) :46.96	Azimuth(Deg) :210	Dip(Deg) :-60
Collar X :504318.90	Collar Y :6068573.50	Collar Z :1350.00	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
5	Diorite	mafic aphanitic groundmass with 20 % 1-2 mm white subhedral-euhedral feldspar, groundmass with abundant biotite (4%0, chlorite alteration of remnant fibrous amphibole					100 200 300 400	500 1000 1500 2000	2.5 5 7.5 10 12.5 15 17.5	1345.66
10	Greywacke	vfg to fg trasitional facies in part								1341.33
	Diorite Dyke	diorite dyke, strong carb-silica alteration	4	2						
15	Greywacke	gw, qtz breccia and silicic alteration, upper contact over 20 cm as 2 qtz veins at 60 deg to CA, with mm scale carbonate with minor blebs of arseno and py, 70 cm pervasive qtz-carb alt, rare blebs po and py	2	1						1337.00
20	Diorite	fg groundmass, with aphanitic feldspar, discordant at upper contact, some strong carbonate alteration at lower contact								1332.67
	Greywacke	carbonate-qtz breccia over 10 cm at lower contact,	1	1						
	Felsic Dyke	aphanitic groundmass, variably with inclusions of muscovite altered GW, fine diss py up to 3%								
25	Greywacke	argillaceous to localy fg, rare soft-sed deformation. Local slickenslides								1328.34
30	Porphyry Dyke	sub-aphanitic felsic habit, lesser 2-4 mm sub-euhedral phenocrysts, felsic groundmass with 10% interstitial qtz. 2-4 % musc-sericite remnant fibrous amph to 3 %, trace diss po								1324.01
35										1319.69
40										1315.36
45	Greywacke	fg-mg with quartzose-argillic turbidite soft sed deformation with recombant intra-formations								1311.04

Scale 1:151	03/03/11	11:57:32

Hole Name :KCZ10006	Length(m) :101.5	Azimuth(Deg) :240	Dip(Deg) :-45
Collar X :504542.30	Collar Y :6067914.20	Collar Z :1556.80	
Drill Type :DIAMOND	Core Size :NQ	Geologist :Jim Riley	

	QDH - Lithology		QDH - Alteration			QDH - Mineralization	QDH - Geochem Master			
Depth At	Rock_Type	Notes	Alt_1_Degree	Alt_2_Degree	Alt_3_Degree	Mineralization Style	Au_ppb	As_ppm	Ag_ppm	Elevation
	Casing	?					100 200 300 400	500 1000 1500 2000	2.5 5 7.5 10 12.5 15 17.5	
	Diorite	aphanitic mafic groundmass, 30-40 % mm scale subhedral freldspar								
	Felsic Dyke	qtz-feldspar groundmass, subhedral 2-3 mm phenocrysts, assimilation of gw at 30 cm lower contact	3							
10	Greywacke	upper 40 cm argillaceous with 4-6 quartzite thin beds, minor po at contact, sharp gradation to moderately sorted quartzite,								1549.56
	Greywacke	argillaceous, massive with rare quartzose clastic dykes, 10 cm coarse felsic dyke at upper contact, comon diss po								
	Porphyry Dyke	diffuse crystal habit of subhedral feldspar phenocrysts, 5-7 % f-mg anhedral amph, fe-oxide alt central zone to lower contact								
20	Greywacke	mod sorted, competent, 19-19.6 m fe-oxide alt, rare blebs pyrite								1542.25
	Greywacke	carbonaceous, soft, irregular polished slickenslide								
	Felsic Dyke	pale-khaki green at upper contact over 40 cm, transition to pale grey, fg aphanitic groundmass. 5-7% sub-mm mafic mineral, 2-3% diss py, competent, rare calcite lined fractures and inclusion of lithic clasts								
30	Greywacke	predominantly massive, argillaceous with minor laminae, grades to med grey qta-feldspathic massive interval at 38.15 m to contact with intrusive								1534.93
40										1527.59
	Porphyry Dyke	upper 30 cm contact muscovite alt, fg aphanitic groundmass with 10-15 % 2-4 mm subhedral phenocrysts								
50	Greywacke	massive with thin interbeds quartzose laminae, common diss po, locally healed fractures with well developed euhedral pyrite								1520.25
60										1512.88
	Greywacke	altered gw, remnant bedding profiles persist with upper contact over 20 cm as qtz flooding with 6-8% irregular blebs of po and py, healed fractures commonly lined with pyrite	2							
70	Greywacke	grades to dark gy argillaceous gw at 74 m, with onset of feldspathic planar beds at 80.05 m, common subhedral 1-2 mm pyrite as diss in groundmass								1505.51
80										1498.13
	Felsic Dyke	silicic overprint, of felsic intrusive displaying foliated fabric, py lines sub-mm sclae fractures, trace arseno	3							
90	Greywacke	argillaceous in part, common diss and fracture py, lower 5 m displays 15-25 cm fractured blocks, with qtz-carb fractures and narrow vnts, local bx, increase denstity from 99.5 on, base of hole with 3 cm felsic dyke at 70 deg to CA, minor blebs of po and py	1							1490.73
100										1483.31

Scale 1:327	03/03/11	11:57:32

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10001-001	1.22	1.48	0.26	SPLIT		
KCZ10001-002	1.48	1.78	0.3	SPLIT		
KCZ10001-003	1.78	2.78	1	SPLIT		
KCZ10001-004	2.78	3.78	1	SPLIT		
KCZ10001-005	3.78	4.93	1.15	SPLIT		
KCZ10001-006	4.93	5.13	0.2	SPLIT		
KCZ10001-007	5.13	6.13	1	SPLIT		
KCZ10001-008	6.13	7.13	1	SPLIT		
KCZ10001-009	7.13	8.13	1	SPLIT		
KCZ10001-010	8.13	9.13	1	SPLIT		
KCZ10001-011	9.13	10.13	1	SPLIT		
KCZ10001-012	10.13	11.13	1	SPLIT		
KCZ10001-013	11.13	12.13	1	SPLIT		
KCZ10001-014	12.13	12.93	0.799999999999999	SPLIT		
KCZ10001-015	12.93	13.85	0.92	SPLIT		
KCZ10001-016	13.85	14.4	0.550000000000001	SPLIT		
KCZ10001-017	14.4	15.17	0.77	SPLIT		
KCZ10001-018	15.17	16.17	1	SPLIT		
KCZ10001-019	16.17	17.17	1	SPLIT		
KCZ10001-020	17.17	18.17	1	SPLIT		
KCZ10001-021	18.17	19.17	1	SPLIT		
KCZ10001-022	19.17	20.17	1	SPLIT		
KCZ10001-023	20.17	21.17	1	SPLIT		
KCZ10001-024	21.17	22.17	1	SPLIT		
KCZ10001-025	22.17	23.17	1	SPLIT		
KCZ10001-026	23.17	24.17	1	SPLIT		
KCZ10001-027	24.17	25.17	1	SPLIT		
KCZ10001-028	25.17	26.17	1	SPLIT		
KCZ10001-029	26.17	27.17	1	SPLIT		
KCZ10001-030	27.17	28.17	1	SPLIT		
KCZ10001-031	28.17	29.17	1	SPLIT		
KCZ10001-032	29.17	30.17	1	SPLIT		
KCZ10001-033	30.17	31.17	1	SPLIT		
KCZ10001-034	31.17	32.17	1	SPLIT		
KCZ10001-035	32.17	33.17	1	SPLIT		
KCZ10001-036	33.17	34.17	1	SPLIT		
KCZ10001-037	34.17	34.75	0.579999999999998	SPLIT		
KCZ10001-038	34.75	36.05	1.3	SPLIT		
KCZ10001-039	36.05	36.25	0.200000000000003	SPLIT		
KCZ10001-040	36.25	36.75	0.5	SPLIT		
KCZ10001-041	36.75	37.8	1.05	SPLIT		
KCZ10001-042	37.8	38.47	0.670000000000002	SPLIT		
KCZ10001-043	38.47	39.47	1	SPLIT		
KCZ10001-044	39.47	40.47	1	SPLIT		
KCZ10001-045	40.47	41.47	1	SPLIT		
KCZ10001-046	41.47	42.2	0.730000000000004	SPLIT		
KCZ10001-047	42.2	43.2	1	SPLIT		
KCZ10001-048	43.2	44.2	1	SPLIT		
KCZ10001-049	44.2	45.2	1	SPLIT		
KCZ10001-050	45.2	46.2	1	SPLIT		
KCZ10001-051	46.2	47.2	1	SPLIT		
KCZ10001-052	47.2	48.2	1	SPLIT		
KCZ10001-053	48.2	49.2	1	SPLIT		
KCZ10001-054	49.2	50.2	1	SPLIT		
KCZ10001-055	50.2	51.2	1	SPLIT		
KCZ10001-056	51.2	52.2	1	SPLIT		
KCZ10001-057	52.2	53.2	1	SPLIT		
KCZ10001-058	53.2	54.2	1	SPLIT		
KCZ10001-059	54.2	55.2	1	SPLIT		
KCZ10001-060	55.2	56.2	1	SPLIT		
KCZ10001-061	56.2	57.2	1	SPLIT		
KCZ10001-062	57.2	58.2	1	SPLIT		
KCZ10001-063	58.2	59.2	1	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10001	86.26	247	-45	504270.9	6068562.8	1337	COMPLETE	11/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10001-064	59.2	60.2	1	SPLIT		
KCZ10001-065	60.2	61.2	1	SPLIT		
KCZ10001-066	61.2	62.2	1	SPLIT		
KCZ10001-067	62.2	63.2	1	SPLIT		
KCZ10001-068	63.2	64.2	1	SPLIT		
KCZ10001-069	64.2	65.2	1	SPLIT		
KCZ10001-070	65.2	66.2	1	SPLIT		
KCZ10001-071	66.2	67.2	1	SPLIT		
KCZ10001-072	67.2	68.2	1	SPLIT		
KCZ10001-073	68.2	69.2	1	SPLIT		
KCZ10001-074	69.2	70.2	1	SPLIT		
KCZ10001-075	70.2	71.2	1	SPLIT		
KCZ10001-076	71.2	72.52	1.31999999999999	SPLIT		
KCZ10001-077	72.52	73.07	0.549999999999997	SPLIT		
KCZ10001-078	73.07	74.17	1.10000000000001	SPLIT		
KCZ10001-079	74.17	75.66	1.48999999999999	SPLIT		
KCZ10001-080	75.66	76.39	0.730000000000004	SPLIT		
KCZ10001-081	76.39	77	0.609999999999999	SPLIT		
KCZ10001-082	77	78	1	SPLIT		
KCZ10001-083	78	79	1	SPLIT		
KCZ10001-084	79	80	1	SPLIT		
KCZ10001-085	80	81	1	SPLIT		
KCZ10001-086	81	82	1	SPLIT		
KCZ10001-087	82	83	1	SPLIT		
KCZ10001-088	83	84	1	SPLIT		
KCZ10001-089	84	85	1	SPLIT		
KCZ10001-090	85	86.26	1.26000000000001	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10002	41.76	247	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10002-001	1.48	2.16	0.68	SPLIT		
KCZ10002-002	2.16	2.44	0.28	SPLIT		
KCZ10002-003	2.44	3.44	1	SPLIT		
KCZ10002-004	3.44	4.13	0.69	SPLIT		
KCZ10002-005	4.13	6.01	1.88	SPLIT		
KCZ10002-006	6.01	7.13	1.12	SPLIT		
KCZ10002-007	7.13	8.23	1.1	SPLIT		
KCZ10002-008	8.23	10	1.77	SPLIT		
KCZ10002-009	10	11.28	1.28	SPLIT		
KCZ10002-010	11.28	11.89	0.610000000000001	SPLIT		
KCZ10002-011	11.89	12.89	1	SPLIT		
KCZ10002-012	12.89	14.39	1.5	SPLIT		
KCZ10002-013	14.39	15.39	1	SPLIT		
KCZ10002-014	15.39	16.29	0.899999999999999	SPLIT		
KCZ10002-015	16.29	17.37	1.08	SPLIT		
KCZ10002-016	17.37	18.37	1	SPLIT		
KCZ10002-017	18.37	18.95	0.579999999999998	SPLIT		
KCZ10002-018	18.95	19.95	1	SPLIT		
KCZ10002-019	19.95	21.21	1.26	SPLIT		
KCZ10002-020	21.21	22.85	1.64	SPLIT		
KCZ10002-021	37.27	38.27	1	SPLIT		
KCZ10002-022	40.6	41.76	1.16	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10003	50.6	277	-70	504270.9	6068562.8	1337	COMPLETE	12/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10003-001	1.24	1.94	0.7	SPLIT		
KCZ10003-002	1.94	2.96	1.02	SPLIT		
KCZ10003-003	2.96	4.03	1.07	SPLIT		
KCZ10003-004	4.03	4.86	0.83	SPLIT		
KCZ10003-005	4.86	5.45	0.59	SPLIT		
KCZ10003-006	5.45	6.69	1.24	SPLIT		
KCZ10003-007	6.69	7.35	0.659999999999999	SPLIT		
KCZ10003-008	7.35	8.03	0.68	SPLIT		
KCZ10003-009	8.03	8.26	0.23	SPLIT		
KCZ10003-010	8.87	10.38	1.51	SPLIT		
KCZ10003-011	14.25	15.24	0.99	SPLIT		
KCZ10003-012	16.89	17.37	0.48	SPLIT		
KCZ10003-013	36.46	37.46	1	SPLIT		
KCZ10003-014	37.46	38.2	0.740000000000002	SPLIT		
KCZ10003-015	38.2	39.03	0.829999999999998	SPLIT		
KCZ10003-016	40.03	40.44	0.409999999999997	SPLIT		
KCZ10003-017	40.44	41.23	0.789999999999999	SPLIT		
KCZ10003-018	41.23	41.65	0.420000000000002	SPLIT		
KCZ10003-019	41.65	42.57	0.920000000000002	SPLIT		
KCZ10003-020	42.57	42.96	0.390000000000001	SPLIT		
KCZ10003-021	44.46	45.23	0.769999999999996	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10004	92.03	210	-45	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10004-001	6.79	6.91	0.12	SPLIT		
KCZ10004-002	8.37	9.37	1	SPLIT		
KCZ10004-003	9.37	10.37	1	SPLIT		
KCZ10004-004	10.53	11.53	1	SPLIT		
KCZ10004-005	11.53	12.7	1.17	SPLIT		
KCZ10004-006	12.7	13.7	1	SPLIT		
KCZ10004-007	13.7	14.7	1	SPLIT		
KCZ10004-008	14.7	16.79	2.09	SPLIT		
KCZ10004-009	16.79	16.96	0.170000000000002	SPLIT		
KCZ10004-010	17.79	19.2	1.41	SPLIT		
KCZ10004-011	19.2	20.2	1	SPLIT		
KCZ10004-012	20.2	21.2	1	SPLIT		
KCZ10004-013	21.2	21.65	0.449999999999999	SPLIT		
KCZ10004-014	21.65	22.65	1	SPLIT		
KCZ10004-015	22.65	23.65	1	SPLIT		
KCZ10004-016	23.65	24.65	1	SPLIT		
KCZ10004-017	24.65	25.65	1	SPLIT		
KCZ10004-018	25.65	26.65	1	SPLIT		
KCZ10004-019	26.65	27.65	1	SPLIT		
KCZ10004-020	27.65	28.65	1	SPLIT		
KCZ10004-021	28.65	29.65	1	SPLIT		
KCZ10004-022	29.65	30.65	1	SPLIT		
KCZ10004-023	30.65	31.48	0.830000000000002	SPLIT		
KCZ10004-024	31.48	32.48	0.999999999999996	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10005	46.96	210	-60	504318.9	6068573.5	1350	COMPLETE	14/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10005-001	11.6	12.6	1	SPLIT		
KCZ10005-002	12.6	13.84	1.24	SPLIT		
KCZ10005-003	13.84	17.79	3.95	SPLIT		
KCZ10005-004	17.79	18.44	0.650000000000002	SPLIT		
KCZ10005-005	18.44	19.44	1	SPLIT		
KCZ10005-006	19.44	20.44	1	SPLIT		
KCZ10005-007	20.44	21.44	1	SPLIT		
KCZ10005-008	21.44	22.44	1	SPLIT		
KCZ10005-009	22.44	23.06	0.619999999999997	SPLIT		
KCZ10005-010	25.62	26.62	1	SPLIT		
KCZ10005-011	26.62	27.36	0.739999999999998	SPLIT		

Appendix 4.3 - Sampling Log

DDH Hole Number	*DDH Length (m)*	*DDH Azimuth (Deg)*	*DDH Dip (+ Down)*	*DDH Easting (NAD83)*	*DDH Northing (NAD83)*	*DDH Elevation (m)*	*DDH Status*	*Date Complete*	*Project Geologist*
KCZ10006	101.5	240	-45	504542.3	6067914.2	1556.8	COMPLETE	21/08/2010	Jim Riley

Sample Number	*From (m)*	*To (m)*	*Length (m)*	*Sample Method*	*Shipping Number*	*Note:*
KCZ10006-001	5.06	5.81	0.75	SPLIT		
KCZ10006-002	5.81	6.3	0.49	SPLIT		
KCZ10006-003	6.3	8.18	1.88	SPLIT		
KCZ10006-004	8.18	9.48	1.3	SPLIT		
KCZ10006-005	10.67	11.69	1.02	SPLIT		
KCZ10006-006	14.33	15.53	1.2	SPLIT		
KCZ10006-007	17.5	18.5	1	SPLIT		
KCZ10006-008	18.5	19.5	1	SPLIT		
KCZ10006-009	19.5	20.8	1.3	SPLIT		
KCZ10006-010	20.8	21.25	0.449999999999999	SPLIT		
KCZ10006-011	21.25	21.75	0.5	SPLIT		
KCZ10006-012	27.42	29.12	1.7	SPLIT		
KCZ10006-013	29.12	30.12	1	SPLIT		
KCZ10006-014	30.12	31.12	1	SPLIT		
KCZ10006-015	31.12	32.12	0.999999999999996	SPLIT		
KCZ10006-016	32.12	33.12	1	SPLIT		
KCZ10006-017	33.12	34.12	1	SPLIT		
KCZ10006-018	34.12	34.65	0.530000000000001	SPLIT		
KCZ10006-019	66.88	67.88	1	SPLIT		
KCZ10006-020	67.88	68.75	0.870000000000005	SPLIT		
KCZ10006-021	89.69	90.19	0.5	SPLIT		
KCZ10006-022	97.28	98.28	1	SPLIT		
KCZ10006-023	98.28	99.28	1	SPLIT		
KCZ10006-024	99.28	100.28	1	SPLIT		
KCZ10006-025	100.28	101.5	1.22	SPLIT		

APPENDIX V
ANALYTICAL CERTIFICATES

Acme Analytical Laboratories (Vancouver) Ltd.
1020 Cordova St. East Vancouver BC V6A 4A3 Canada

www.acmelab.com

Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: September 03, 2010
Page: 1 of 5

CERTIFICATE OF ANALYSIS VAN10004140.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-001
P.O. Number
Number of Samples: 94

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	90	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	94	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	94	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-001-001	Drill Core	0.46	<2	<1	24	<3	51	0.4	3	9	897	4.57	8	<2	<2	126	0.6	<3	<3	54	2.79
KCZ10-001-002	Drill Core	0.72	164	<1	117	26	25	1.5	9	4	3104	4.33	194	<2	<2	647	1.1	3	<3	7	19.00
KCZ10-001-003	Drill Core	2.11	<2	<1	5	<3	54	<0.3	3	8	751	4.13	64	<2	<2	98	0.6	<3	<3	22	3.43
KCZ10-001-004	Drill Core	3.69	73	<1	6	<3	56	<0.3	3	8	698	4.45	49	<2	<2	91	0.7	<3	<3	26	3.28
KCZ10-001-005	Drill Core	2.69	<2	<1	13	<3	63	<0.3	4	9	631	5.18	31	<2	<2	82	0.7	<3	<3	43	2.28
KCZ10-001-006	Drill Core	0.63	33	<1	17	6	28	<0.3	5	4	2242	3.19	148	<2	<2	460	0.7	<3	<3	8	15.91
KCZ10-001-007	Drill Core	2.20	3	<1	14	<3	49	<0.3	3	8	617	4.03	63	<2	<2	88	0.5	<3	<3	31	2.79
KCZ10-001-008	Drill Core	2.07	6	<1	8	<3	58	<0.3	9	9	773	4.49	84	<2	<2	134	0.7	<3	<3	54	3.21
KCZ10-001-009	Drill Core	2.51	<2	<1	22	<3	68	0.4	28	15	808	5.15	11	<2	<2	97	0.7	<3	<3	144	2.38
KCZ10-001-010	Drill Core	2.64	<2	<1	14	<3	57	0.4	21	12	822	4.51	16	<2	<2	151	0.6	<3	<3	122	2.36
KCZ10-001-011	Drill Core	1.91	<2	<1	14	<3	73	<0.3	33	12	614	4.55	10	<2	<2	66	0.5	<3	<3	118	1.71
KCZ10-001-012	Drill Core	2.37	3	2	47	5	135	0.4	118	23	623	5.39	20	<2	<2	44	0.6	<3	<3	155	0.88
KCZ10-001-013	Drill Core	2.64	5	1	32	5	124	0.3	96	18	587	4.51	37	<2	<2	69	0.6	<3	<3	100	1.23
KCZ10-001-014	Drill Core	0.99	6	<1	53	71	124	1.0	95	18	735	4.32	38	<2	<2	62	0.7	3	<3	71	2.09
KCZ10-001-015	Drill Core	1.97	35	1	40	12	94	0.6	74	14	941	3.76	91	<2	<2	122	0.9	<3	<3	40	3.70
KCZ10-001-016	Drill Core	1.37	168	1	138	204	557	7.9	16	3	1233	3.22	203	<2	<2	216	4.0	13	<3	17	5.16
KCZ10-001-016B	Rock Pulp	0.04	<2	1	5	3	17	<0.3	3	2	344	1.56	<2	<2	4	12	<0.5	<3	<3	13	0.20
KCZ10-001-017	Drill Core	1.46	4	1	33	12	76	0.4	56	12	461	3.23	101	<2	<2	69	<0.5	<3	<3	37	1.79
KCZ10-001-018	Drill Core	1.69	4	<1	45	5	108	0.3	74	18	371	4.12	32	<2	<2	20	<0.5	<3	<3	84	0.44
KCZ10-001-019	Drill Core	1.48	<2	<1	44	7	109	0.4	62	16	573	4.06	22	<2	<2	66	0.7	<3	<3	72	2.74
KCZ10-001-020	Drill Core	2.51	3	1	73	9	101	0.4	77	15	583	4.98	24	<2	<2	35	0.8	<3	<3	77	1.20
KCZ10-001-020S	Rock Pulp	0.04	921	4	62	8	66	0.4	24	106	679	3.31	4772	<2	<2	119	0.9	4	12	54	2.93
KCZ10-001-021	Drill Core	2.21	7	<1	95	3	74	0.6	59	15	967	4.85	52	<2	<2	62	0.7	<3	<3	70	2.47
KCZ10-001-022	Drill Core	2.77	3	<1	41	7	92	0.3	77	16	442	4.01	45	<2	<2	25	0.6	<3	<3	81	0.89
KCZ10-001-023	Drill Core	1.51	5	1	63	4	95	0.3	90	21	520	4.20	44	<2	<2	33	0.6	<3	<3	85	1.41
KCZ10-001-024	Drill Core	2.02	2	<1	39	<3	100	<0.3	77	19	332	4.05	25	<2	<2	13	<0.5	<3	<3	83	0.32
KCZ10-001-025	Drill Core	2.60	<2	<1	38	<3	123	<0.3	99	19	345	4.40	25	<2	<2	11	<0.5	<3	<3	93	0.22
KCZ10-001-026	Drill Core	2.16	<2	<1	40	<3	118	<0.3	92	19	410	4.32	23	<2	2	17	0.5	<3	<3	99	0.76
KCZ10-001-027	Drill Core	1.43	2	<1	51	3	121	<0.3	77	17	335	4.42	8	<2	3	10	0.5	<3	<3	63	0.12
KCZ10-001-028	Drill Core	1.78	2	<1	42	9	111	<0.3	66	16	391	3.96	13	<2	2	20	0.5	<3	<3	66	0.63

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-001-001	Drill Core	0.114	7	6	1.01	186	0.108	<20	2.28	0.08	0.15	<2	0.11	<5	6
KCZ10-001-002	Drill Core	0.033	6	1	0.87	10	0.002	<20	0.85	<0.01	0.10	<2	1.73	<5	<5
KCZ10-001-003	Drill Core	0.117	6	4	0.90	56	0.014	<20	1.97	0.02	0.20	<2	0.05	<5	<5
KCZ10-001-004	Drill Core	0.115	6	3	0.95	66	0.014	<20	2.35	0.02	0.19	<2	<0.05	<5	5
KCZ10-001-005	Drill Core	0.116	6	4	1.08	108	0.037	<20	2.59	0.04	0.20	<2	0.10	<5	6
KCZ10-001-006	Drill Core	0.062	6	1	0.54	29	0.002	<20	1.32	<0.01	0.16	<2	0.51	<5	<5
KCZ10-001-007	Drill Core	0.105	6	4	0.85	77	0.019	<20	1.97	0.03	0.18	<2	0.08	<5	<5
KCZ10-001-008	Drill Core	0.103	6	11	1.06	102	0.071	<20	2.26	0.05	0.20	<2	<0.05	<5	6
KCZ10-001-009	Drill Core	0.116	6	28	1.60	145	0.118	<20	3.09	0.10	0.20	<2	0.08	9	8
KCZ10-001-010	Drill Core	0.158	7	21	1.32	261	0.131	<20	3.02	0.15	0.25	35	0.08	8	7
KCZ10-001-011	Drill Core	0.090	6	37	1.43	170	0.092	<20	2.59	0.06	0.27	<2	<0.05	7	8
KCZ10-001-012	Drill Core	0.065	7	137	2.32	124	0.048	<20	3.04	0.02	0.30	<2	0.28	7	8
KCZ10-001-013	Drill Core	0.069	6	105	2.03	91	0.023	<20	2.70	<0.01	0.25	<2	0.11	<5	6
KCZ10-001-014	Drill Core	0.115	6	78	1.75	95	0.017	<20	2.47	<0.01	0.27	<2	0.35	<5	5
KCZ10-001-015	Drill Core	0.108	6	38	1.29	66	0.009	<20	1.83	<0.01	0.22	<2	0.33	<5	<5
KCZ10-001-016	Drill Core	0.020	2	15	0.94	23	0.001	<20	0.83	<0.01	0.10	<2	0.40	<5	<5
KCZ10-001-016B	Rock Pulp	0.016	5	12	0.20	115	0.070	<20	0.59	0.08	0.28	<2	<0.05	<5	<5
KCZ10-001-017	Drill Core	0.022	4	39	0.98	46	0.002	<20	1.65	<0.01	0.17	<2	0.24	<5	<5
KCZ10-001-018	Drill Core	0.041	4	86	1.69	86	0.008	<20	2.31	<0.01	0.24	<2	1.01	<5	5
KCZ10-001-019	Drill Core	0.066	4	77	1.62	65	0.010	<20	2.19	0.01	0.19	<2	1.23	<5	<5
KCZ10-001-020	Drill Core	0.066	4	79	1.76	95	0.010	<20	2.36	0.01	0.22	<2	1.82	<5	5
KCZ10-001-020S	Rock Pulp	0.075	7	20	0.67	75	0.070	<20	1.86	0.16	0.14	<2	0.49	<5	<5
KCZ10-001-021	Drill Core	0.061	5	65	1.55	109	0.051	<20	2.37	0.04	0.14	<2	1.56	<5	<5
KCZ10-001-022	Drill Core	0.092	5	92	1.73	106	0.013	<20	2.22	0.02	0.23	<2	0.77	<5	5
KCZ10-001-023	Drill Core	0.155	5	93	1.68	76	0.015	<20	2.22	0.02	0.17	<2	0.92	<5	5
KCZ10-001-024	Drill Core	0.045	5	91	1.77	84	0.012	<20	2.35	0.02	0.21	<2	0.52	<5	5
KCZ10-001-025	Drill Core	0.056	4	127	1.95	65	0.017	<20	2.56	0.01	0.19	<2	0.48	<5	5
KCZ10-001-026	Drill Core	0.186	6	124	1.94	78	0.016	<20	2.54	0.02	0.22	<2	0.61	<5	6
KCZ10-001-027	Drill Core	0.041	3	83	1.77	66	0.006	<20	2.20	0.01	0.19	<2	1.24	<5	5
KCZ10-001-028	Drill Core	0.045	4	77	1.75	84	0.008	<20	2.19	0.02	0.20	<2	0.94	<5	6

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Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-001-029	Drill Core	1.85	2	1	47	9	133	<0.3	88	17	302	4.32	13	<2	3	12	0.7	<3	<3	98	0.30
KCZ10-001-030	Drill Core	1.85	5	<1	52	14	130	<0.3	80	17	310	4.37	10	<2	3	12	0.6	<3	<3	91	0.27
KCZ10-001-031	Drill Core	2.03	4	<1	45	5	137	<0.3	81	16	293	4.27	12	<2	3	10	0.6	<3	<3	99	0.24
KCZ10-001-032	Drill Core	1.98	<2	<1	47	6	128	<0.3	88	15	275	4.18	7	<2	3	11	0.6	<3	<3	95	0.28
KCZ10-001-033	Drill Core	1.10	<2	<1	49	8	134	<0.3	84	14	286	4.19	9	<2	3	11	0.8	<3	<3	94	0.26
KCZ10-001-034	Drill Core	2.21	<2	<1	63	9	132	<0.3	92	15	297	4.49	6	<2	3	15	0.7	<3	<3	97	0.38
KCZ10-001-035	Drill Core	1.66	4	<1	53	13	136	<0.3	87	15	265	4.28	10	<2	4	9	0.7	<3	<3	88	0.23
KCZ10-001-036	Drill Core	3.26	8	<1	45	15	145	<0.3	76	15	374	3.98	27	<2	2	24	0.9	<3	<3	69	0.86
KCZ10-001-037	Drill Core	1.39	11	1	45	7	92	<0.3	66	14	334	3.74	5	<2	3	22	0.7	<3	<3	40	0.53
KCZ10-001-038	Drill Core	2.84	<2	1	11	<3	58	<0.3	6	8	768	3.10	6	<2	2	113	0.5	<3	<3	56	2.55
KCZ10-001-039	Drill Core	0.50	4	<1	17	271	442	0.9	27	7	2104	2.51	11	<2	2	263	2.9	<3	<3	30	12.91
KCZ10-001-040	Drill Core	1.29	6	1	82	26	117	0.4	73	18	589	4.40	14	<2	3	69	0.9	<3	<3	88	1.61
KCZ10-001-040S	Rock Pulp	0.04	7716	3	163	7	48	>100	7	9	464	2.81	146	8	3	76	0.6	4	10	86	1.35
KCZ10-001-041	Drill Core	2.54	<2	<1	12	5	70	<0.3	6	10	888	3.63	<2	<2	<2	70	0.6	<3	<3	78	1.74
KCZ10-001-042	Drill Core	1.30	4	<1	15	4	79	<0.3	18	12	855	3.83	7	<2	2	85	0.7	<3	<3	85	1.97
KCZ10-001-043	Drill Core	2.22	9	1	75	20	157	<0.3	109	20	436	5.03	26	<2	<2	50	1.0	3	<3	91	0.77
KCZ10-001-044	Drill Core	1.79	9	2	54	16	151	<0.3	99	19	433	4.85	43	<2	<2	49	0.9	<3	<3	76	0.80
KCZ10-001-045	Drill Core	1.93	8	1	70	43	104	0.3	90	18	552	4.41	39	<2	<2	86	0.8	<3	<3	71	1.62
KCZ10-001-046	Drill Core	1.48	6	2	57	31	128	<0.3	92	18	372	4.59	40	<2	<2	50	0.8	<3	<3	75	0.67
KCZ10-001-047	Drill Core	1.98	2	<1	5	3	43	<0.3	2	5	574	1.90	<2	<2	<2	176	<0.5	<3	<3	8	2.59
KCZ10-001-048	Drill Core	2.32	8	<1	18	<3	24	<0.3	1	5	547	1.73	3	<2	<2	172	<0.5	<3	<3	5	2.66
KCZ10-001-049	Drill Core	2.35	7	<1	25	<3	29	<0.3	1	4	539	1.64	<2	<2	<2	157	<0.5	<3	<3	5	2.48
KCZ10-001-050	Drill Core	2.28	60	<1	30	8	27	<0.3	1	5	517	1.79	<2	<2	<2	165	<0.5	<3	<3	6	2.43
KCZ10-001-051	Drill Core	2.66	7	<1	1	3	24	<0.3	1	5	564	1.67	<2	<2	<2	150	<0.5	<3	<3	3	2.72
KCZ10-001-052	Drill Core	2.32	120	<1	3	<3	22	<0.3	1	5	565	1.67	<2	<2	<2	135	<0.5	<3	<3	3	2.62
KCZ10-001-053	Drill Core	2.12	5	<1	<1	<3	24	<0.3	1	4	573	1.56	<2	<2	<2	127	<0.5	<3	<3	3	2.59
KCZ10-001-054	Drill Core	2.71	2	<1	2	<3	24	<0.3	1	4	550	1.58	<2	<2	<2	136	<0.5	<3	<3	3	2.60
KCZ10-001-055	Drill Core	2.40	<2	<1	1	<3	23	<0.3	<1	4	539	1.44	<2	<2	<2	179	<0.5	<3	<3	3	2.55
KCZ10-001-056	Drill Core	2.53	8	<1	3	<3	28	<0.3	<1	5	548	1.45	<2	<2	<2	180	<0.5	<3	<3	3	2.49
KCZ10-001-057	Drill Core	2.51	<2	<1	<1	<3	25	<0.3	<1	4	530	1.44	<2	<2	<2	166	<0.5	<3	<3	3	2.48

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Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-001-029	Drill Core	0.063	4	99	1.88	83	0.011	<20	2.44	0.02	0.20	<2	0.86	<5	6
KCZ10-001-030	Drill Core	0.046	3	89	1.85	62	0.010	<20	2.38	0.02	0.16	<2	0.84	<5	6
KCZ10-001-031	Drill Core	0.051	3	94	1.88	62	0.011	<20	2.47	0.02	0.18	<2	0.66	<5	6
KCZ10-001-032	Drill Core	0.047	3	95	1.82	53	0.010	<20	2.35	0.02	0.15	<2	0.69	<5	6
KCZ10-001-033	Drill Core	0.047	3	104	1.81	55	0.011	<20	2.32	0.02	0.15	<2	0.71	<5	6
KCZ10-001-034	Drill Core	0.056	3	108	1.83	54	0.010	<20	2.39	0.02	0.16	<2	0.82	<5	6
KCZ10-001-035	Drill Core	0.050	4	102	1.83	41	0.009	<20	2.35	0.01	0.14	<2	0.71	<5	6
KCZ10-001-036	Drill Core	0.051	4	76	1.74	58	0.006	<20	2.34	0.02	0.17	<2	0.67	<5	6
KCZ10-001-037	Drill Core	0.037	3	49	1.59	76	0.002	<20	1.98	0.02	0.16	<2	0.91	<5	5
KCZ10-001-038	Drill Core	0.085	5	8	0.91	88	0.015	<20	1.72	0.03	0.17	<2	0.13	<5	6
KCZ10-001-039	Drill Core	0.121	10	22	0.81	55	0.007	<20	1.51	<0.01	0.12	<2	0.40	<5	<5
KCZ10-001-040	Drill Core	0.042	5	84	1.99	86	0.005	<20	2.52	0.02	0.18	<2	0.79	<5	6
KCZ10-001-040S	Rock Pulp	0.050	6	11	0.80	147	0.133	<20	1.95	0.23	0.30	4	0.12	<5	5
KCZ10-001-041	Drill Core	0.106	5	8	1.09	91	0.071	<20	1.90	0.03	0.11	<2	0.11	<5	5
KCZ10-001-042	Drill Core	0.096	5	22	1.21	93	0.069	<20	2.11	0.04	0.14	<2	0.16	5	6
KCZ10-001-043	Drill Core	0.062	4	113	2.03	64	0.007	<20	2.66	0.01	0.16	<2	0.97	<5	7
KCZ10-001-044	Drill Core	0.081	4	81	1.77	72	0.003	<20	2.41	0.02	0.19	<2	1.59	<5	6
KCZ10-001-045	Drill Core	0.118	4	77	1.71	61	0.004	<20	2.30	0.02	0.16	<2	1.33	<5	6
KCZ10-001-046	Drill Core	0.062	4	83	1.76	76	0.003	<20	2.54	0.01	0.20	<2	0.74	<5	6
KCZ10-001-047	Drill Core	0.088	3	2	0.57	66	0.002	<20	0.74	0.03	0.19	<2	0.46	<5	<5
KCZ10-001-048	Drill Core	0.084	3	1	0.48	84	0.002	<20	0.47	0.03	0.24	<2	0.58	<5	<5
KCZ10-001-049	Drill Core	0.086	3	1	0.50	68	0.003	<20	0.48	0.03	0.21	<2	0.25	<5	<5
KCZ10-001-050	Drill Core	0.086	4	1	0.50	85	0.002	<20	0.87	0.03	0.23	<2	0.24	<5	<5
KCZ10-001-051	Drill Core	0.087	3	<1	0.43	72	0.002	<20	0.41	0.03	0.22	<2	0.44	<5	<5
KCZ10-001-052	Drill Core	0.085	3	<1	0.41	90	0.002	<20	0.49	0.03	0.25	<2	0.36	<5	<5
KCZ10-001-053	Drill Core	0.088	3	1	0.44	75	0.002	<20	0.40	0.03	0.22	<2	0.31	<5	<5
KCZ10-001-054	Drill Core	0.087	4	<1	0.38	95	0.001	<20	0.42	0.03	0.24	<2	0.21	<5	<5
KCZ10-001-055	Drill Core	0.085	5	<1	0.44	270	0.002	<20	0.28	0.03	0.20	<2	0.10	<5	<5
KCZ10-001-056	Drill Core	0.084	6	<1	0.47	222	0.002	<20	0.35	0.03	0.24	<2	0.08	<5	<5
KCZ10-001-057	Drill Core	0.084	5	<1	0.44	152	0.002	<20	0.33	0.03	0.19	<2	0.08	<5	<5

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Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-001-058	Drill Core	2.22	13	<1	1	<3	25	<0.3	<1	5	553	1.49	<2	<2	<2	167	<0.5	<3	<3	4	2.49
KCZ10-001-059	Drill Core	2.39	3	<1	2	<3	30	<0.3	<1	4	555	1.50	<2	<2	<2	136	<0.5	<3	<3	3	2.52
KCZ10-001-060	Drill Core	2.33	<2	<1	2	<3	27	<0.3	<1	4	537	1.44	<2	<2	<2	149	<0.5	<3	<3	3	2.46
KCZ10-001-061	Drill Core	2.37	<2	<1	5	<3	27	<0.3	<1	4	542	1.40	<2	<2	<2	165	<0.5	<3	<3	3	2.45
KCZ10-001-062	Drill Core	2.26	3	<1	3	<3	31	<0.3	<1	3	541	1.46	<2	<2	<2	128	<0.5	<3	<3	3	2.50
KCZ10-001-063	Drill Core	2.22	<2	<1	3	<3	31	<0.3	<1	4	532	1.46	<2	<2	<2	153	<0.5	<3	<3	4	2.47
KCZ10-001-064	Drill Core	2.51	<2	<1	2	26	24	<0.3	<1	4	565	1.43	<2	<2	<2	134	<0.5	<3	<3	3	2.42
KCZ10-001-065	Drill Core	2.32	3	<1	4	<3	26	<0.3	<1	4	549	1.42	<2	<2	<2	211	<0.5	<3	<3	3	2.44
KCZ10-001-066	Drill Core	2.04	4	<1	4	<3	30	<0.3	1	4	565	1.54	<2	<2	<2	156	<0.5	<3	<3	4	2.48
KCZ10-001-067	Drill Core	2.13	<2	<1	1	<3	26	<0.3	1	4	619	1.60	<2	<2	<2	172	<0.5	<3	<3	4	2.64
KCZ10-001-068	Drill Core	2.26	<2	<1	1	<3	26	<0.3	1	5	573	1.49	<2	<2	<2	167	<0.5	<3	<3	4	2.54
KCZ10-001-069	Drill Core	2.04	<2	<1	2	<3	33	<0.3	1	4	586	1.51	<2	<2	<2	151	<0.5	<3	<3	5	2.58
KCZ10-001-070	Drill Core	2.07	<2	<1	<1	<3	29	<0.3	1	4	575	1.49	<2	<2	<2	147	<0.5	<3	<3	4	2.57
KCZ10-001-071	Drill Core	2.10	2	<1	<1	<3	28	<0.3	<1	4	564	1.49	<2	<2	<2	156	<0.5	<3	<3	5	2.58
KCZ10-001-072	Drill Core	2.34	<2	<1	<1	4	31	<0.3	1	4	576	1.52	<2	<2	<2	138	<0.5	<3	<3	4	2.56
KCZ10-001-073	Drill Core	2.35	15	<1	2	<3	52	<0.3	2	6	573	1.66	<2	<2	<2	150	<0.5	<3	<3	4	2.57
KCZ10-001-074	Drill Core	2.29	<2	<1	2	<3	27	<0.3	1	5	598	1.55	<2	<2	<2	152	<0.5	<3	<3	4	2.90
KCZ10-001-075	Drill Core	2.49	7	<1	6	<3	52	<0.3	4	6	729	2.00	<2	<2	<2	180	<0.5	<3	<3	7	3.22
KCZ10-001-076	Drill Core	3.02	3	<1	52	<3	31	<0.3	1	5	583	1.58	<2	<2	<2	182	<0.5	<3	<3	5	2.69
KCZ10-001-077	Drill Core	1.45	3	6	38	21	82	0.5	3	11	1123	3.64	<2	<2	<2	225	0.5	<3	<3	82	3.65
KCZ10-001-078	Drill Core	2.36	4	<1	11	<3	41	<0.3	2	5	632	1.73	<2	<2	<2	147	<0.5	<3	<3	6	2.74
KCZ10-001-079	Drill Core	3.14	<2	<1	33	9	73	0.4	3	11	996	3.68	<2	<2	<2	117	0.5	<3	<3	74	2.70
KCZ10-001-080	Drill Core	1.69	<2	<1	10	<3	70	<0.3	4	11	863	3.89	2	<2	<2	108	<0.5	<3	<3	68	2.30
KCZ10-001-080S	Rock Pulp	0.04	929	4	61	8	65	0.4	24	105	673	3.25	4675	<2	<2	116	0.8	4	15	54	2.91
KCZ10-001-081	Drill Core	1.31	5	<1	10	5	73	<0.3	4	10	783	4.40	8	<2	<2	85	0.5	<3	<3	72	1.40
KCZ10-001-082	Drill Core	2.58	2	1	41	4	70	0.4	8	10	951	3.64	14	<2	<2	99	<0.5	<3	<3	77	2.24
KCZ10-001-083	Drill Core	2.22	<2	8	42	<3	57	0.6	8	8	605	3.00	<2	<2	<2	78	<0.5	<3	<3	60	0.98
KCZ10-001-084	Drill Core	2.23	<2	6	44	<3	60	0.6	10	9	609	3.13	<2	<2	<2	79	<0.5	<3	<3	80	0.96
KCZ10-001-085	Drill Core	2.05	<2	<1	38	<3	58	0.4	8	9	623	3.00	<2	<2	<2	71	<0.5	<3	<3	67	1.07
KCZ10-001-086	Drill Core	2.84	<2	<1	32	<3	57	0.5	8	9	608	3.04	<2	<2	<2	95	<0.5	<3	<3	65	1.35

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Project: Kalum
Report Date: September 03, 2010

CERTIFICATE OF ANALYSIS VAN10004140.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-001-058	Drill Core	0.087	5	<1	0.49	237	0.002	<20	0.33	0.03	0.23	<2	0.11	<5	<5
KCZ10-001-059	Drill Core	0.086	4	<1	0.47	80	<0.001	<20	0.27	0.03	0.19	<2	0.11	<5	<5
KCZ10-001-060	Drill Core	0.085	5	<1	0.49	131	0.002	<20	0.32	0.03	0.21	<2	0.06	<5	<5
KCZ10-001-061	Drill Core	0.087	6	<1	0.47	125	0.002	<20	0.26	0.03	0.19	<2	<0.05	<5	<5
KCZ10-001-062	Drill Core	0.085	4	<1	0.42	86	0.001	<20	0.37	0.03	0.22	<2	0.12	<5	<5
KCZ10-001-063	Drill Core	0.083	6	1	0.48	141	0.001	<20	0.41	0.03	0.22	<2	0.06	<5	<5
KCZ10-001-064	Drill Core	0.084	3	<1	0.42	78	<0.001	<20	0.28	0.03	0.20	<2	0.28	<5	<5
KCZ10-001-065	Drill Core	0.084	4	<1	0.46	112	0.001	<20	0.32	0.03	0.22	<2	0.16	<5	<5
KCZ10-001-066	Drill Core	0.086	4	<1	0.49	120	0.001	<20	0.50	0.04	0.27	<2	0.20	<5	<5
KCZ10-001-067	Drill Core	0.089	4	1	0.49	135	<0.001	<20	0.50	0.04	0.29	<2	0.28	<5	<5
KCZ10-001-068	Drill Core	0.090	8	<1	0.45	147	0.002	<20	0.44	0.04	0.27	<2	0.09	<5	<5
KCZ10-001-069	Drill Core	0.089	6	1	0.48	144	0.001	<20	0.53	0.04	0.30	<2	0.13	<5	<5
KCZ10-001-070	Drill Core	0.087	5	<1	0.46	121	<0.001	<20	0.47	0.04	0.28	<2	0.18	<5	<5
KCZ10-001-071	Drill Core	0.088	6	1	0.47	231	0.001	<20	0.50	0.04	0.31	<2	0.16	<5	<5
KCZ10-001-072	Drill Core	0.086	4	<1	0.47	122	0.001	<20	0.45	0.04	0.28	<2	0.25	<5	<5
KCZ10-001-073	Drill Core	0.086	4	<1	0.47	126	0.001	<20	0.49	0.04	0.29	<2	0.35	<5	<5
KCZ10-001-074	Drill Core	0.086	5	<1	0.51	147	0.001	<20	0.45	0.04	0.29	<2	0.17	<5	<5
KCZ10-001-075	Drill Core	0.096	4	4	0.71	124	0.002	<20	0.61	0.04	0.30	<2	0.20	<5	<5
KCZ10-001-076	Drill Core	0.090	6	1	0.49	452	0.002	<20	0.53	0.04	0.29	<2	0.17	<5	<5
KCZ10-001-077	Drill Core	0.111	6	4	1.22	102	0.035	<20	2.02	0.08	0.19	<2	0.12	7	7
KCZ10-001-078	Drill Core	0.090	4	2	0.51	127	0.004	<20	0.63	0.04	0.31	<2	0.34	<5	<5
KCZ10-001-079	Drill Core	0.108	7	5	1.15	98	0.057	<20	2.14	0.05	0.17	<2	0.06	<5	7
KCZ10-001-080	Drill Core	0.113	10	3	0.79	37	<0.001	<20	2.18	0.01	0.16	<2	0.07	6	6
KCZ10-001-080S	Rock Pulp	0.073	7	20	0.67	73	0.067	<20	1.82	0.15	0.14	<2	0.50	<5	5
KCZ10-001-081	Drill Core	0.112	8	3	1.25	55	<0.001	<20	2.43	0.01	0.16	<2	0.21	7	6
KCZ10-001-082	Drill Core	0.101	6	11	1.01	219	0.099	<20	2.02	0.07	0.22	<2	0.16	5	7
KCZ10-001-083	Drill Core	0.102	5	9	0.78	687	0.181	<20	1.97	0.20	0.59	<2	0.05	<5	6
KCZ10-001-084	Drill Core	0.090	5	16	0.82	872	0.210	<20	2.07	0.20	0.68	<2	<0.05	<5	6
KCZ10-001-085	Drill Core	0.102	5	10	0.81	520	0.176	<20	1.92	0.14	0.42	<2	<0.05	<5	6
KCZ10-001-086	Drill Core	0.109	6	10	0.85	574	0.172	<20	2.19	0.22	0.53	<2	0.09	<5	6

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CERTIFICATE OF ANALYSIS VAN10004140.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-001-087	Drill Core	2.36	<2	4	93	<3	60	0.6	25	13	556	3.49	<2	<2	<2	82	<0.5	<3	<3	95	1.16
KCZ10-001-088	Drill Core	2.27	<2	1	51	<3	57	0.5	4	7	519	3.48	3	<2	<2	98	<0.5	<3	<3	57	1.04
KCZ10-001-089	Drill Core	2.45	<2	2	56	3	56	0.5	16	8	614	3.27	6	<2	<2	81	<0.5	<3	<3	56	1.78
KCZ10-001-090	Drill Core	2.57	3	<1	15	<3	67	0.6	13	10	720	3.79	<2	<2	<2	60	<0.5	<3	<3	94	1.76

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CERTIFICATE OF ANALYSIS VAN10004140.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-001-087	Drill Core	0.140	9	26	0.88	903	0.207	<20	2.12	0.20	0.72	<2	0.28	<5	6
KCZ10-001-088	Drill Core	0.122	7	6	0.82	894	0.189	<20	2.23	0.21	0.71	<2	0.09	<5	6
KCZ10-001-089	Drill Core	0.106	6	15	0.80	526	0.155	<20	1.94	0.12	0.41	<2	0.14	<5	6
KCZ10-001-090	Drill Core	0.105	6	18	1.18	446	0.176	<20	2.49	0.11	0.40	<2	0.07	7	9

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QUALITY CONTROL REPORT VAN10004140.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
KCZ10-001-018	Drill Core	1.69	4	<1	45	5	108	0.3	74	18	371	4.12	32	<2	<2	20	<0.5	<3	<3	84	0.44
REP KCZ10-001-018	QC		3																		
KCZ10-001-029	Drill Core	1.85	2	1	47	9	133	<0.3	88	17	302	4.32	13	<2	3	12	0.7	<3	<3	98	0.30
REP KCZ10-001-029	QC			1	46	8	128	<0.3	85	17	301	4.26	12	<2	3	12	0.6	<3	<3	94	0.29
KCZ10-001-034	Drill Core	2.21	<2	<1	63	9	132	<0.3	92	15	297	4.49	6	<2	3	15	0.7	<3	<3	97	0.38
REP KCZ10-001-034	QC		<2																		
KCZ10-001-040S	Rock Pulp	0.04	7716	3	163	7	48	>100	7	9	464	2.81	146	8	3	76	0.6	4	10	86	1.35
REP KCZ10-001-040S	QC			3	161	8	47	>100	7	9	455	2.79	148	8	2	76	0.6	5	11	85	1.35
KCZ10-001-082	Drill Core	2.58	2	1	41	4	70	0.4	8	10	951	3.64	14	<2	<2	99	<0.5	<3	<3	77	2.24
REP KCZ10-001-082	QC		7																		
Core Reject Duplicates																					
KCZ10-001-028	Drill Core	1.78	2	<1	42	9	111	<0.3	66	16	391	3.96	13	<2	2	20	0.5	<3	<3	66	0.63
DUP KCZ10-001-028	QC		2	<1	43	6	114	<0.3	66	16	381	3.93	15	<2	3	19	0.5	<3	<3	71	0.61
KCZ10-001-062	Drill Core	2.26	3	<1	3	<3	31	<0.3	<1	3	541	1.46	<2	<2	<2	128	<0.5	<3	<3	3	2.50
DUP KCZ10-001-062	QC		2	<1	3	<3	33	<0.3	<1	3	520	1.39	<2	<2	<2	123	<0.5	<3	<3	3	2.40
Reference Materials																					
STD DS7	Standard			19	108	63	403	1.2	52	8	633	2.42	49	<2	4	75	5.8	<3	5	86	0.98
STD DS7	Standard			19	100	64	398	1.3	51	8	620	2.36	51	<2	4	70	5.8	4	5	82	0.93
STD DS7	Standard			20	103	64	400	1.4	51	8	624	2.36	51	<2	4	72	5.7	3	<3	83	0.95
STD OREAS45PA	Standard			<1	600	12	110	0.9	292	102	1057	15.94	5	<2	6	13	<0.5	<3	<3	225	0.24
STD OREAS45PA	Standard			<1	550	11	106	0.9	265	98	1042	15.58	3	<2	6	13	0.6	<3	<3	218	0.24
STD OREAS45PA	Standard			<1	612	13	111	0.9	300	104	1094	16.76	14	<2	6	13	0.5	<3	<3	231	0.25
STD OXC72	Standard		194																		
STD OXC72	Standard		193																		
STD OXC72	Standard		188																		
STD OXH66	Standard		1246																		
STD OXH66	Standard		1225																		
STD OXH66	Standard		1263																		

Acme Analytical Laboratories (Vancouver) Ltd.
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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

QUALITY CONTROL REPORT VAN10004140.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Pulp Duplicates															
KCZ10-001-018	Drill Core	0.041	4	86	1.69	86	0.008	<20	2.31	<0.01	0.24	<2	1.01	<5	5
REP KCZ10-001-018	QC														
KCZ10-001-029	Drill Core	0.063	4	99	1.88	83	0.011	<20	2.44	0.02	0.20	<2	0.86	<5	6
REP KCZ10-001-029	QC	0.060	4	96	1.86	81	0.011	<20	2.39	0.02	0.19	<2	0.84	<5	6
KCZ10-001-034	Drill Core	0.056	3	108	1.83	54	0.010	<20	2.39	0.02	0.16	<2	0.82	<5	6
REP KCZ10-001-034	QC														
KCZ10-001-040S	Rock Pulp	0.050	6	11	0.80	147	0.133	<20	1.95	0.23	0.30	4	0.12	<5	5
REP KCZ10-001-040S	QC	0.049	6	11	0.79	145	0.135	<20	1.85	0.22	0.29	4	0.12	<5	6
KCZ10-001-082	Drill Core	0.101	6	11	1.01	219	0.099	<20	2.02	0.07	0.22	<2	0.16	5	7
REP KCZ10-001-082	QC														
Core Reject Duplicates															
KCZ10-001-028	Drill Core	0.045	4	77	1.75	84	0.008	<20	2.19	0.02	0.20	<2	0.94	<5	6
DUP KCZ10-001-028	QC	0.044	3	78	1.73	74	0.009	<20	2.12	0.02	0.18	<2	0.96	<5	5
KCZ10-001-062	Drill Core	0.085	4	<1	0.42	86	0.001	<20	0.37	0.03	0.22	<2	0.12	<5	<5
DUP KCZ10-001-062	QC	0.085	5	<1	0.43	71	0.001	<20	0.28	0.03	0.19	<2	0.07	<5	<5
Reference Materials															
STD DS7	Standard	0.072	12	204	1.07	427	0.118	41	1.05	0.10	0.47	2	0.19	<5	<5
STD DS7	Standard	0.072	11	181	1.04	417	0.114	41	1.00	0.09	0.46	2	0.19	<5	<5
STD DS7	Standard	0.072	11	185	1.04	420	0.116	35	1.03	0.09	0.46	3	0.19	<5	<5
STD OREAS45PA	Standard	0.034	15	815	0.10	177	0.125	<20	3.46	<0.01	0.07	<2	<0.05	52	16
STD OREAS45PA	Standard	0.033	14	738	0.09	177	0.115	<20	3.10	<0.01	0.07	<2	<0.05	49	15
STD OREAS45PA	Standard	0.035	15	819	0.10	185	0.130	<20	3.57	<0.01	0.08	<2	<0.05	54	14
STD OXC72	Standard														
STD OXC72	Standard														
STD OXC72	Standard														
STD OXH66	Standard														
STD OXH66	Standard														
STD OXH66	Standard														

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Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 03, 2010

QUALITY CONTROL REPORT VAN10004140.1

		WGHT Wgt kg 0.01	3B Au ppb 2	1D Mo ppm 1	1D Cu ppm 1	1D Pb ppm 3	1D Zn ppm 1	1D Ag ppm 0.3	1D Ni ppm 1	1D Co ppm 1	1D Mn ppm 2	1D Fe % 0.01	1D As ppm 2	1D Au ppm 2	1D Th ppm 2	1D Sr ppm 1	1D Cd ppm 0.5	1D Sb ppm 3	1D Bi ppm 3	1D V ppm 1	1D Ca % 0.01
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXH66 Expected			1285																		
STD OXC72 Expected			205																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	<2	<1	1	<3	43	<0.3	3	3	545	1.80	<2	<2	4	52	<0.5	<3	<3	32	0.44
G1	Prep Blank	<0.01	<2	<1	1	<3	43	0.3	3	3	549	1.89	<2	<2	5	60	<0.5	<3	<3	34	0.48

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QUALITY CONTROL REPORT VAN10004140.1

		1D P % 0.001	1D La ppm 1	1D Cr ppm 1	1D Mg % 0.01	1D Ba ppm 1	1D Ti % 0.001	1D B ppm 20	1D Al % 0.01	1D Na % 0.01	1D K % 0.01	1D W ppm 2	1D S % 0.05	1D Sc ppm 5	1D Ga ppm 5
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXH66 Expected															
STD OXC72 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.067	8	7	0.53	192	0.112	<20	0.90	0.07	0.43	<2	<0.05	<5	<5
G1	Prep Blank	0.070	8	8	0.54	199	0.117	<20	0.95	0.08	0.45	<2	<0.05	<5	<5

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
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Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: October 04, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004141.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-002
P.O. Number
Number of Samples: 24

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	22	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	24	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	24	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Project: Kalum
Report Date: October 04, 2010

CERTIFICATE OF ANALYSIS VAN10004141.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-002-001	Drill Core	3.86	2	<1	21	4	61	<0.3	30	12	640	4.61	80	<2	<2	108	0.5	<3	<3	57	2.38
KCZ10-002-002	Drill Core	0.49	350	5	63	82	827	0.7	19	6	1797	5.22	495	<2	<2	437	5.9	<3	<3	27	10.57
KCZ10-002-003	Drill Core	2.29	25	1	42	16	135	0.4	92	22	1933	6.12	156	<2	2	299	1.4	<3	<3	75	5.27
KCZ10-002-004	Drill Core	1.65	44	1	102	42	131	0.7	100	20	983	4.94	352	<2	<2	195	1.2	<3	3	52	4.16
KCZ10-002-005	Drill Core	2.79	3	<1	33	11	94	<0.3	67	14	730	3.76	104	<2	<2	115	0.7	<3	<3	56	2.63
KCZ10-002-006	Drill Core	2.75	16	<1	43	10	84	0.4	18	17	1206	5.38	1321	<2	<2	216	1.1	<3	4	86	6.24
KCZ10-002-007	Drill Core	2.30	4	2	37	<3	74	0.4	11	13	713	4.56	20	<2	3	69	<0.5	<3	3	107	2.16
KCZ10-002-008	Drill Core	4.24	14	<1	17	<3	53	0.7	2	14	759	4.43	24	<2	<2	68	0.5	<3	<3	113	1.60
KCZ10-002-009	Drill Core	3.24	6	<1	34	<3	78	0.5	5	15	1167	6.33	23	<2	<2	135	0.8	<3	<3	182	4.14
KCZ10-002-010	Drill Core	1.64	4	<1	31	5	57	<0.3	35	9	435	2.90	28	<2	<2	78	<0.5	<3	<3	29	2.52
KCZ10-002-011	Drill Core	2.00	2	<1	46	74	126	0.7	64	12	389	3.89	93	<2	<2	23	<0.5	<3	<3	47	0.97
KCZ10-002-012	Drill Core	3.24	<2	1	51	22	144	1.0	95	19	520	4.15	330	<2	<2	44	0.8	<3	<3	51	1.48
KCZ10-002-012B	Rock Pulp	0.04	<2	1	5	3	17	0.3	3	2	354	1.61	3	<2	5	14	<0.5	<3	<3	14	0.22
KCZ10-002-013	Drill Core	1.89	37	1	56	51	154	1.2	66	15	792	4.36	605	<2	<2	101	1.0	<3	<3	57	2.52
KCZ10-002-014	Drill Core	1.48	4	<1	44	9	109	0.5	72	15	350	4.20	12	<2	<2	13	<0.5	<3	<3	81	0.24
KCZ10-002-015	Drill Core	2.31	3	<1	34	5	105	<0.3	63	14	328	3.64	17	<2	<2	16	<0.5	<3	<3	61	0.41
KCZ10-002-016	Drill Core	1.84	<2	2	48	21	121	0.5	74	16	373	3.99	30	<2	2	12	<0.5	<3	<3	73	0.31
KCZ10-002-017	Drill Core	1.28	<2	<1	24	15	130	0.4	51	8	1566	2.19	8	<2	3	68	0.6	<3	<3	30	7.38
KCZ10-002-018	Drill Core	2.23	8	2	72	22	133	0.3	104	20	608	4.84	19	<2	3	35	0.7	<3	<3	76	1.33
KCZ10-002-019	Drill Core	2.59	8	2	54	24	114	0.4	81	16	703	4.27	18	<2	3	74	0.6	<3	<3	64	2.23
KCZ10-002-019S	Rock Pulp	0.04	971	3	59	9	65	0.5	23	102	662	3.18	4601	<2	<2	115	0.8	4	11	53	2.84
KCZ10-002-020	Drill Core	4.09	6	1	46	18	114	0.5	68	17	498	4.08	24	<2	<2	58	0.6	<3	<3	66	2.03
KCZ10-002-021	Drill Core	2.31	<2	<1	37	13	128	0.4	68	16	268	3.98	19	<2	<2	40	<0.5	<3	<3	68	0.58
KCZ10-002-022	Drill Core	2.62	8	<1	36	19	101	<0.3	46	15	465	3.80	24	<2	<2	87	0.7	<3	<3	82	1.44

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Project: Kalum
Report Date: October 04, 2010

CERTIFICATE OF ANALYSIS VAN10004141.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-002-001	Drill Core	0.265	6	22	1.11	161	0.062	<20	2.40	0.04	0.22	<2	0.16	<5	7
KCZ10-002-002	Drill Core	0.038	3	12	0.94	45	0.003	<20	1.37	<0.01	0.08	<2	3.01	<5	5
KCZ10-002-003	Drill Core	0.132	6	55	1.82	62	0.008	<20	3.09	<0.01	0.17	<2	0.67	5	7
KCZ10-002-004	Drill Core	0.083	3	43	1.41	70	0.004	<20	2.56	<0.01	0.20	<2	0.88	<5	7
KCZ10-002-005	Drill Core	0.048	6	57	1.39	56	0.006	<20	2.16	0.02	0.18	<2	0.09	<5	6
KCZ10-002-006	Drill Core	0.097	4	17	1.68	68	0.013	<20	2.98	0.01	0.18	<2	0.34	<5	7
KCZ10-002-007	Drill Core	0.115	4	14	1.47	132	0.067	<20	2.42	0.04	0.18	<2	0.12	7	8
KCZ10-002-008	Drill Core	0.106	3	3	1.36	188	0.196	<20	2.56	0.12	0.09	<2	0.10	<5	7
KCZ10-002-009	Drill Core	0.112	4	5	2.02	71	0.058	<20	3.50	0.05	0.10	<2	0.13	11	10
KCZ10-002-010	Drill Core	0.040	4	27	0.78	59	0.004	<20	1.41	0.03	0.18	<2	0.28	<5	<5
KCZ10-002-011	Drill Core	0.081	6	54	1.36	80	0.009	<20	2.16	0.02	0.23	<2	0.28	<5	6
KCZ10-002-012	Drill Core	0.064	4	62	1.67	82	0.003	<20	2.23	0.01	0.24	<2	0.43	<5	6
KCZ10-002-012B	Rock Pulp	0.016	5	13	0.21	120	0.071	<20	0.62	0.09	0.29	<2	<0.05	<5	<5
KCZ10-002-013	Drill Core	0.047	4	58	1.64	63	0.005	<20	2.09	0.02	0.19	<2	1.00	<5	<5
KCZ10-002-014	Drill Core	0.039	4	87	1.82	60	0.009	<20	2.28	0.02	0.16	<2	1.07	<5	5
KCZ10-002-015	Drill Core	0.040	4	74	1.66	74	0.008	<20	2.13	0.02	0.16	<2	0.82	<5	5
KCZ10-002-016	Drill Core	0.066	5	84	1.81	82	0.008	<20	2.31	0.02	0.16	<2	0.73	<5	7
KCZ10-002-017	Drill Core	0.377	13	27	0.58	17	0.040	<20	1.38	<0.01	0.05	<2	0.64	<5	<5
KCZ10-002-018	Drill Core	0.151	5	83	1.86	64	0.007	<20	2.43	0.02	0.18	<2	1.71	<5	7
KCZ10-002-019	Drill Core	0.153	7	77	1.72	63	0.006	<20	2.41	0.02	0.18	<2	1.19	<5	6
KCZ10-002-019S	Rock Pulp	0.073	7	20	0.66	72	0.064	<20	1.81	0.15	0.13	<2	0.47	<5	<5
KCZ10-002-020	Drill Core	0.050	4	79	1.65	62	0.007	<20	2.31	0.02	0.17	<2	0.97	<5	5
KCZ10-002-021	Drill Core	0.047	5	83	1.75	52	0.005	<20	2.36	0.02	0.17	<2	0.36	<5	6
KCZ10-002-022	Drill Core	0.067	5	51	1.60	72	0.007	<20	2.73	0.09	0.15	<2	0.30	<5	7

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

QUALITY CONTROL REPORT VAN10004141.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
REP G1	QC			<1	2	<3	45	<0.3	3	4	580	1.97	15	<2	5	65	<0.5	<3	<3	36	0.49
KCZ10-002-008	Drill Core	4.24	14	<1	17	<3	53	0.7	2	14	759	4.43	24	<2	<2	68	0.5	<3	<3	113	1.60
REP KCZ10-002-008	QC		12																		
KCZ10-002-020	Drill Core	4.09	6	1	46	18	114	0.5	68	17	498	4.08	24	<2	<2	58	0.6	<3	<3	66	2.03
REP KCZ10-002-020	QC			<1	45	17	111	0.4	68	17	495	3.99	20	<2	<2	57	0.6	<3	<3	65	2.00
Core Reject Duplicates																					
KCZ10-002-004	Drill Core	1.65	44	1	102	42	131	0.7	100	20	983	4.94	352	<2	<2	195	1.2	<3	3	52	4.16
DUP KCZ10-002-004	QC		52	1	99	41	123	0.9	97	20	984	4.85	367	<2	<2	197	1.1	<3	<3	50	4.19
Reference Materials																					
STD DS7	Standard			19	108	63	403	1.2	52	8	633	2.42	49	<2	4	75	5.8	<3	5	86	0.98
STD DS7	Standard			19	105	66	403	1.4	52	8	629	2.39	48	<2	4	74	5.8	4	3	84	0.97
STD OREAS45PA	Standard			<1	600	12	110	0.9	292	102	1057	15.94	5	<2	6	13	<0.5	<3	<3	225	0.24
STD OREAS45PA	Standard			<1	596	13	112	1.0	295	100	1072	15.78	6	<2	7	13	<0.5	<3	<3	228	0.24
STD OXC72	Standard		200																		
STD OXH66	Standard		1336																		
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXH66 Expected			1285																		
STD OXC72 Expected			205																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	3																		
G1	Prep Blank	<0.01	<2	<1	2	<3	45	<0.3	3	4	587	2.05	7	<2	5	71	<0.5	<3	<3	36	0.51
G1	Prep Blank			<1	2	<3	43	0.3	3	3	572	1.97	14	<2	5	64	<0.5	<3	<3	35	0.50

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

QUALITY CONTROL REPORT VAN10004141.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Pulp Duplicates															
REP G1	QC	0.078	10	11	0.56	222	0.121	<20	1.00	0.08	0.46	<2	<0.05	<5	5
KCZ10-002-008	Drill Core	0.106	3	3	1.36	188	0.196	<20	2.56	0.12	0.09	<2	0.10	<5	7
REP KCZ10-002-008	QC														
KCZ10-002-020	Drill Core	0.050	4	79	1.65	62	0.007	<20	2.31	0.02	0.17	<2	0.97	<5	5
REP KCZ10-002-020	QC	0.049	3	78	1.62	60	0.007	<20	2.25	0.02	0.17	<2	0.95	<5	5
Core Reject Duplicates															
KCZ10-002-004	Drill Core	0.083	3	43	1.41	70	0.004	<20	2.56	<0.01	0.20	<2	0.88	<5	7
DUP KCZ10-002-004	QC	0.081	3	41	1.37	70	0.003	<20	2.48	<0.01	0.20	<2	0.89	<5	6
Reference Materials															
STD DS7	Standard	0.072	12	204	1.07	427	0.118	41	1.05	0.10	0.47	2	0.19	<5	<5
STD DS7	Standard	0.073	12	200	1.06	427	0.117	39	1.04	0.10	0.47	2	0.19	<5	5
STD OREAS45PA	Standard	0.034	15	815	0.10	177	0.125	<20	3.46	<0.01	0.07	<2	<0.05	52	16
STD OREAS45PA	Standard	0.034	15	817	0.10	179	0.130	<20	3.49	<0.01	0.07	<2	<0.05	55	15
STD OXC72	Standard														
STD OXH66	Standard														
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXH66 Expected															
STD OXC72 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank														
G1	Prep Blank	0.073	10	9	0.57	238	0.123	<20	1.06	0.09	0.48	<2	<0.05	<5	6
G1	Prep Blank	0.074	9	10	0.55	220	0.122	<20	0.98	0.08	0.46	<2	<0.05	<5	<5

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: October 05, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004142.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-003
P.O. Number
Number of Samples: 23

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	21	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	23	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	23	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 05, 2010

CERTIFICATE OF ANALYSIS VAN10004142.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-003-001	Drill Core	1.64	3	2	55	4	113	<0.3	81	24	915	6.60	32	<2	<2	119	0.5	<3	<3	168	2.31
KCZ10-003-002	Drill Core	2.20	4	<1	36	6	100	<0.3	43	16	909	5.01	111	<2	3	143	0.6	<3	<3	87	3.39
KCZ10-003-003	Drill Core	2.11	18	<1	47	23	99	0.4	78	25	899	5.73	137	<2	<2	122	0.7	<3	<3	63	3.45
KCZ10-003-004	Drill Core	1.95	14	<1	37	11	112	<0.3	73	16	851	4.33	104	<2	2	111	0.7	<3	<3	58	3.05
KCZ10-003-005	Drill Core	1.37	4	2	50	6	121	0.3	111	23	588	4.85	112	<2	3	73	0.5	<3	<3	92	1.41
KCZ10-003-006	Drill Core	2.90	<2	<1	18	4	71	<0.3	29	12	621	4.01	17	<2	3	67	<0.5	<3	<3	83	2.08
KCZ10-003-007	Drill Core	1.18	3	<1	62	12	104	0.4	90	22	894	5.10	187	<2	3	118	0.6	<3	<3	92	3.14
KCZ10-003-008	Drill Core	1.73	<2	<1	31	5	90	<0.3	17	22	1043	6.10	45	<2	<2	139	0.7	<3	<3	135	4.04
KCZ10-003-009	Drill Core	2.68	6	3	54	<3	59	0.4	3	19	838	4.76	108	<2	<2	98	<0.5	<3	<3	127	2.31
KCZ10-003-010	Drill Core	3.26	<2	1	9	3	66	<0.3	9	10	642	3.75	161	<2	3	99	<0.5	<3	<3	58	2.69
KCZ10-003-011	Drill Core	2.31	492	<1	35	30	95	0.8	75	18	777	3.67	138	<2	<2	133	0.6	<3	<3	49	3.15
KCZ10-003-012	Drill Core	1.11	<2	1	54	33	164	<0.3	66	16	846	3.68	11	<2	<2	109	0.8	<3	<3	73	4.72
KCZ10-003-013	Drill Core	2.32	5	3	70	184	171	1.3	52	14	1086	2.63	17	<2	<2	93	1.1	<3	<3	32	6.41
KCZ10-003-014	Drill Core	1.57	4	2	71	15	130	0.5	83	19	549	4.55	16	<2	3	78	0.9	<3	<3	102	1.32
KCZ10-003-015	Drill Core	2.55	<2	1	29	16	105	<0.3	34	14	787	4.07	14	<2	3	82	0.7	<3	<3	99	1.84
KCZ10-003-015B	Rock Pulp	0.04	8	2	6	5	20	<0.3	3	3	358	1.67	<2	<2	5	15	<0.5	<3	<3	14	0.24
KCZ10-003-016	Drill Core	1.11	<2	2	92	10	192	<0.3	92	18	891	4.39	7	<2	2	44	0.9	<3	<3	67	3.05
KCZ10-003-017	Drill Core	1.93	4	2	82	16	159	0.4	101	20	525	4.62	28	<2	<2	25	1.0	<3	<3	64	0.61
KCZ10-003-018	Drill Core	1.14	<2	1	44	7	112	<0.3	85	18	544	3.91	19	<2	<2	30	<0.5	<3	<3	71	0.81
KCZ10-003-019	Drill Core	2.57	<2	2	69	24	112	0.3	97	19	819	4.36	14	<2	3	64	0.8	<3	<3	71	3.16
KCZ10-003-020	Drill Core	0.76	5	2	151	44	162	1.4	98	18	672	4.41	68	<2	3	38	1.6	<3	<3	77	0.91
KCZ10-003-020S	Rock Pulp	0.04	7936	4	181	12	57	>100	9	11	521	3.13	163	9	3	90	<0.5	5	12	95	1.59
KCZ10-003-021	Drill Core	2.49	<2	2	71	9	141	<0.3	78	17	461	4.40	9	<2	3	32	<0.5	<3	<3	68	0.99

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 05, 2010

CERTIFICATE OF ANALYSIS VAN10004142.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-003-001	Drill Core	0.123	6	81	2.17	121	0.075	<20	3.32	0.04	0.28	<2	0.35	11	<5
KCZ10-003-002	Drill Core	0.105	6	31	1.44	68	0.027	<20	2.61	0.03	0.20	<2	0.18	6	<5
KCZ10-003-003	Drill Core	0.101	5	47	1.51	67	0.011	<20	2.90	<0.01	0.23	<2	0.41	<5	<5
KCZ10-003-004	Drill Core	0.040	5	65	1.42	67	0.010	<20	2.32	0.01	0.19	<2	0.23	<5	<5
KCZ10-003-005	Drill Core	0.066	7	108	1.78	94	0.021	<20	2.76	0.01	0.23	<2	0.12	<5	<5
KCZ10-003-006	Drill Core	0.131	7	35	1.24	78	0.038	<20	2.03	0.04	0.12	<2	0.05	6	<5
KCZ10-003-007	Drill Core	0.089	6	78	1.87	63	0.012	<20	2.76	0.02	0.17	<2	0.26	6	<5
KCZ10-003-008	Drill Core	0.114	5	9	1.84	56	0.036	<20	3.17	0.03	0.11	<2	0.16	8	<5
KCZ10-003-009	Drill Core	0.127	4	3	1.50	177	0.150	<20	2.64	0.12	0.07	<2	0.37	6	<5
KCZ10-003-010	Drill Core	0.113	5	11	1.14	59	0.014	<20	2.00	0.04	0.15	<2	0.06	<5	<5
KCZ10-003-011	Drill Core	0.054	5	53	1.18	78	0.006	<20	1.95	0.02	0.22	<2	0.42	<5	<5
KCZ10-003-012	Drill Core	0.055	4	74	1.46	53	0.013	<20	2.00	0.02	0.15	<2	1.09	<5	<5
KCZ10-003-013	Drill Core	0.251	6	36	0.89	57	0.020	<20	1.30	0.01	0.10	<2	0.98	<5	<5
KCZ10-003-014	Drill Core	0.053	5	99	1.87	85	0.013	<20	2.51	0.04	0.16	<2	0.68	6	<5
KCZ10-003-015	Drill Core	0.091	5	43	1.39	91	0.065	<20	2.23	0.04	0.16	<2	0.31	7	<5
KCZ10-003-015B	Rock Pulp	0.018	6	14	0.22	118	0.075	<20	0.63	0.09	0.30	<2	<0.05	<5	<5
KCZ10-003-016	Drill Core	0.229	8	76	1.44	56	0.013	<20	2.08	0.01	0.15	<2	1.26	<5	<5
KCZ10-003-017	Drill Core	0.068	4	82	1.66	64	0.003	<20	2.26	0.02	0.18	<2	1.43	<5	<5
KCZ10-003-018	Drill Core	0.062	4	79	1.60	61	0.008	<20	2.14	0.03	0.17	<2	1.04	<5	<5
KCZ10-003-019	Drill Core	0.145	5	81	1.49	66	0.018	<20	1.95	0.03	0.12	<2	1.61	<5	<5
KCZ10-003-020	Drill Core	0.068	5	85	1.72	71	0.006	<20	2.53	0.02	0.17	<2	0.63	<5	<5
KCZ10-003-020S	Rock Pulp	0.058	7	13	0.90	162	0.160	<20	2.09	0.25	0.33	5	0.14	<5	<5
KCZ10-003-021	Drill Core	0.062	4	79	1.63	57	0.008	<20	2.25	0.03	0.18	<2	0.99	<5	<5

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Project: Kalum
Report Date: October 05, 2010

QUALITY CONTROL REPORT VAN10004142.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
KCZ10-003-006	Drill Core	2.90	<2	<1	18	4	71	<0.3	29	12	621	4.01	17	<2	3	67	<0.5	<3	<3	83	2.08
REP KCZ10-003-006	QC		<2																		
Core Reject Duplicates																					
KCZ10-003-017	Drill Core	1.93	4	2	82	16	159	0.4	101	20	525	4.62	28	<2	<2	25	1.0	<3	<3	64	0.61
DUP KCZ10-003-017	QC		3	2	83	16	167	0.4	103	20	538	4.72	29	<2	<2	27	1.0	<3	<3	65	0.65
Reference Materials																					
STD DS7	Standard			21	103	61	404	0.9	54	9	621	2.36	52	<2	5	74	6.0	5	<3	82	0.95
STD DS7	Standard			21	103	68	411	1.1	55	10	643	2.44	53	<2	4	76	6.1	<3	<3	83	0.99
STD OREAS45PA	Standard			1	648	17	121	0.5	317	117	1159	18.00	4	<2	8	15	<0.5	<3	<3	231	0.26
STD OREAS45PA	Standard			1	643	21	123	0.5	314	112	1125	17.37	6	<2	8	14	<0.5	<3	<3	225	0.25
STD OXC72	Standard		195																		
STD OXH66	Standard		1288																		
STD OXH66	Standard		1380																		
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXC72 Expected			205																		
STD OXH66 Expected			1285																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	<2	<1	2	<3	49	<0.3	4	4	573	1.97	<2	<2	6	74	<0.5	<3	<3	38	0.50
G1	Prep Blank	<0.01	<2	<1	2	<3	46	<0.3	4	4	542	1.87	<2	<2	5	73	<0.5	<3	<3	36	0.47

Acme Analytical Laboratories (Vancouver) Ltd.
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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 05, 2010

QUALITY CONTROL REPORT VAN10004142.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Pulp Duplicates															
KCZ10-003-006	Drill Core	0.131	7	35	1.24	78	0.038	<20	2.03	0.04	0.12	<2	0.05	6	<5
REP KCZ10-003-006	QC														
Core Reject Duplicates															
KCZ10-003-017	Drill Core	0.068	4	82	1.66	64	0.003	<20	2.26	0.02	0.18	<2	1.43	<5	<5
DUP KCZ10-003-017	QC	0.070	4	83	1.68	68	0.003	<20	2.28	0.02	0.19	<2	1.49	<5	<5
Reference Materials															
STD DS7	Standard	0.075	12	182	1.04	414	0.116	46	1.02	0.10	0.46	3	0.20	<5	<5
STD DS7	Standard	0.079	13	188	1.07	424	0.121	46	1.06	0.10	0.49	3	0.21	<5	<5
STD OREAS45PA	Standard	0.040	17	874	0.11	196	0.136	<20	3.68	<0.01	0.08	<2	<0.05	56	<5
STD OREAS45PA	Standard	0.039	17	864	0.11	191	0.135	<20	3.78	<0.01	0.08	<2	<0.05	58	9
STD OXC72	Standard														
STD OXH66	Standard														
STD OXH66	Standard														
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXC72 Expected															
STD OXH66 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.081	9	10	0.60	220	0.125	<20	0.98	0.08	0.51	<2	<0.05	<5	<5
G1	Prep Blank	0.078	9	10	0.56	207	0.119	<20	0.93	0.07	0.47	<2	<0.05	<5	<5

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: October 04, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004143.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-004
P.O. Number
Number of Samples: 26

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	24	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	26	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	26	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

CERTIFICATE OF ANALYSIS VAN10004143.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-004-001	Drill Core	0.57	38	<1	30	18	73	0.5	4	13	977	5.39	855	<2	<2	136	0.9	<3	<3	133	4.14
KCZ10-004-002	Drill Core	1.63	3	<1	27	4	78	0.4	35	14	712	4.91	21	<2	<2	75	0.6	<3	<3	106	2.27
KCZ10-004-003	Drill Core	1.66	56	1	53	17	137	0.7	69	15	361	4.17	416	<2	2	16	0.6	<3	<3	55	0.42
KCZ10-004-004	Drill Core	1.83	3	<1	37	4	113	0.4	60	12	418	3.79	17	<2	<2	32	<0.5	<3	<3	82	1.08
KCZ10-004-005	Drill Core	2.12	5	<1	43	10	97	0.5	61	11	367	3.91	35	<2	<2	16	<0.5	<3	<3	60	0.45
KCZ10-004-006	Drill Core	3.13	5	1	50	20	118	0.6	74	14	382	4.32	71	<2	<2	23	0.7	<3	<3	72	0.73
KCZ10-004-007	Drill Core	1.52	2	1	31	9	129	0.6	85	16	320	4.19	40	<2	2	13	<0.5	<3	<3	102	0.24
KCZ10-004-008	Drill Core	2.89	<2	<1	39	5	134	0.4	91	16	299	4.14	32	<2	2	13	<0.5	<3	<3	95	0.25
KCZ10-004-009	Drill Core	0.36	10	<1	3	<3	7	<0.3	5	1	552	0.39	4	<2	<2	132	<0.5	<3	<3	3	3.46
KCZ10-004-010	Drill Core	1.98	6	1	54	9	115	0.5	81	20	363	4.44	20	<2	<2	20	<0.5	<3	<3	67	0.46
KCZ10-004-011	Drill Core	1.61	4	1	60	7	112	0.7	79	21	364	4.60	27	<2	<2	25	0.6	<3	<3	113	0.51
KCZ10-004-012	Drill Core	2.35	14	1	34	12	112	0.4	77	16	508	4.03	194	<2	<2	99	0.8	<3	<3	47	1.73
KCZ10-004-013	Drill Core	0.69	41	6	164	9	141	1.2	116	28	423	6.21	19	<2	<2	31	0.8	<3	<3	41	1.10
KCZ10-004-014	Drill Core	1.73	136	<1	50	6	79	0.6	40	13	662	4.22	1208	<2	<2	101	0.7	3	<3	58	2.59
KCZ10-004-015	Drill Core	1.78	6	<1	24	7	64	<0.3	21	9	360	2.98	11	<2	2	44	<0.5	<3	<3	48	1.46
KCZ10-004-016	Drill Core	1.46	3	<1	34	4	94	<0.3	42	12	451	3.84	23	<2	2	37	<0.5	<3	<3	81	1.04
KCZ10-004-017	Drill Core	3.20	<2	1	34	<3	89	<0.3	58	14	479	4.47	17	<2	2	34	0.6	<3	<3	113	0.73
KCZ10-004-018	Drill Core	1.49	2	1	44	3	116	<0.3	64	16	416	4.22	17	<2	3	20	<0.5	3	<3	93	0.52
KCZ10-004-019	Drill Core	1.92	<2	2	43	<3	166	<0.3	73	16	1001	4.19	28	<2	<2	45	0.9	<3	<3	90	2.45
KCZ10-004-020	Drill Core	2.87	<2	<1	27	7	76	<0.3	28	9	436	3.23	11	<2	2	51	<0.5	<3	<3	60	1.77
KCZ10-004-020S	Rock Pulp	0.04	8272	3	164	7	48	>100	7	9	464	2.80	153	7	3	74	0.5	4	10	86	1.34
KCZ10-004-021	Drill Core	2.43	4	<1	24	5	75	<0.3	28	9	456	3.11	18	<2	<2	48	<0.5	<3	<3	48	1.59
KCZ10-004-022	Drill Core	1.91	4	1	30	<3	98	0.3	52	14	552	4.16	54	<2	<2	45	<0.5	<3	<3	77	1.54
KCZ10-004-023	Drill Core	2.11	3	1	34	<3	97	0.4	53	15	622	4.73	16	<2	<2	39	<0.5	<3	<3	98	1.26
KCZ10-004-024	Drill Core	2.17	4	2	49	<3	122	0.3	92	19	441	4.86	16	<2	<2	19	<0.5	<3	<3	128	0.49
KCZ10-004-024B	Rock Pulp	0.04	<2	1	5	4	17	<0.3	3	2	350	1.62	<2	<2	5	13	<0.5	<3	<3	13	0.21

Acme Analytical Laboratories (Vancouver) Ltd.
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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

CERTIFICATE OF ANALYSIS VAN10004143.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-004-001	Drill Core	0.097	4	5	1.56	121	0.067	<20	2.99	0.04	0.29	<2	<0.05	8	8
KCZ10-004-002	Drill Core	0.090	5	43	1.64	101	0.049	<20	2.72	0.04	0.21	<2	0.23	7	8
KCZ10-004-003	Drill Core	0.045	5	63	1.64	72	0.005	<20	2.36	<0.01	0.22	<2	0.38	<5	7
KCZ10-004-004	Drill Core	0.079	5	72	1.33	77	0.031	<20	2.00	0.03	0.18	<2	0.59	<5	6
KCZ10-004-005	Drill Core	0.063	4	63	1.60	71	0.008	<20	2.02	0.02	0.18	<2	1.08	<5	7
KCZ10-004-006	Drill Core	0.063	3	79	1.62	70	0.011	<20	2.15	0.02	0.19	<2	1.23	<5	5
KCZ10-004-007	Drill Core	0.056	7	127	1.97	76	0.025	<20	2.63	0.01	0.22	<2	0.08	<5	7
KCZ10-004-008	Drill Core	0.050	6	127	1.96	71	0.024	<20	2.55	0.01	0.20	<2	0.14	<5	8
KCZ10-004-009	Drill Core	0.046	2	5	0.10	33	<0.001	<20	0.30	0.02	0.09	<2	<0.05	<5	<5
KCZ10-004-010	Drill Core	0.058	4	71	1.78	66	0.006	<20	2.39	0.02	0.20	<2	0.84	<5	6
KCZ10-004-011	Drill Core	0.053	4	93	1.90	75	0.014	<20	2.55	0.02	0.23	<2	0.91	<5	7
KCZ10-004-012	Drill Core	0.071	4	50	1.65	67	0.004	<20	2.27	0.01	0.21	<2	0.43	<5	6
KCZ10-004-013	Drill Core	0.046	2	43	1.70	57	0.003	<20	2.18	<0.01	0.17	<2	2.08	<5	6
KCZ10-004-014	Drill Core	0.082	4	44	1.44	70	0.008	<20	2.12	0.03	0.19	<2	1.06	<5	6
KCZ10-004-015	Drill Core	0.079	5	26	0.97	81	0.023	<20	1.51	0.05	0.15	<2	0.40	<5	6
KCZ10-004-016	Drill Core	0.058	5	57	1.28	92	0.017	<20	1.91	0.04	0.16	<2	0.42	5	7
KCZ10-004-017	Drill Core	0.046	5	93	1.68	106	0.033	<20	2.26	0.04	0.19	<2	0.38	8	8
KCZ10-004-018	Drill Core	0.042	4	88	1.63	71	0.019	<20	2.03	0.02	0.15	<2	0.52	<5	7
KCZ10-004-019	Drill Core	0.083	5	83	1.73	83	0.022	<20	2.42	0.01	0.17	<2	0.34	<5	7
KCZ10-004-020	Drill Core	0.082	7	34	1.07	69	0.013	<20	1.76	0.03	0.13	<2	0.17	<5	7
KCZ10-004-020S	Rock Pulp	0.051	6	12	0.80	149	0.132	<20	1.81	0.22	0.30	4	0.12	<5	5
KCZ10-004-021	Drill Core	0.088	5	32	1.03	80	0.015	<20	1.66	0.03	0.14	<2	0.24	<5	6
KCZ10-004-022	Drill Core	0.082	4	62	1.45	85	0.028	<20	2.15	0.03	0.18	<2	0.44	<5	6
KCZ10-004-023	Drill Core	0.084	5	64	1.56	105	0.040	<20	2.38	0.04	0.18	<2	0.51	6	8
KCZ10-004-024	Drill Core	0.052	4	125	2.00	98	0.027	<20	2.54	0.02	0.21	<2	0.70	5	7
KCZ10-004-024B	Rock Pulp	0.017	5	13	0.21	117	0.071	<20	0.61	0.08	0.28	<2	<0.05	<5	<5

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

QUALITY CONTROL REPORT VAN10004143.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
KCZ10-004-024	Drill Core	2.17	4	2	49	<3	122	0.3	92	19	441	4.86	16	<2	<2	19	<0.5	<3	<3	128	0.49
REP KCZ10-004-024	QC		4																		
Core Reject Duplicates																					
KCZ10-004-016	Drill Core	1.46	3	<1	34	4	94	<0.3	42	12	451	3.84	23	<2	2	37	<0.5	<3	<3	81	1.04
DUP KCZ10-004-016	QC		3	1	34	5	94	<0.3	41	12	436	3.74	23	<2	2	37	0.5	<3	<3	76	1.01
Reference Materials																					
STD DS7	Standard			19	99	63	397	1.6	50	8	609	2.34	52	<2	5	69	5.6	5	5	80	0.93
STD DS7	Standard			19	105	66	403	1.4	52	8	629	2.39	48	<2	4	74	5.8	4	3	84	0.97
STD OREAS45PA	Standard			<1	612	12	110	1.0	294	102	1083	16.89	8	<2	7	13	<0.5	<3	<3	230	0.25
STD OREAS45PA	Standard			<1	596	13	112	1.0	295	100	1072	15.78	6	<2	7	13	<0.5	<3	<3	228	0.24
STD OXC72	Standard		205																		
STD OXC72	Standard		200																		
STD OXH66	Standard		1367																		
STD OXH66	Standard		1336																		
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXH66 Expected			1285																		
STD OXC72 Expected			205																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	<2	<1	1	<3	46	0.4	3	3	587	2.02	2	<2	4	71	<0.5	<3	<3	36	0.55
G1	Prep Blank	<0.01	<2	<1	1	<3	45	0.3	3	3	570	1.97	3	<2	5	64	<0.5	<3	<3	35	0.49

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 04, 2010

QUALITY CONTROL REPORT VAN10004143.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Pulp Duplicates															
KCZ10-004-024	Drill Core	0.052	4	125	2.00	98	0.027	<20	2.54	0.02	0.21	<2	0.70	5	7
REP KCZ10-004-024	QC														
Core Reject Duplicates															
KCZ10-004-016	Drill Core	0.058	5	57	1.28	92	0.017	<20	1.91	0.04	0.16	<2	0.42	5	7
DUP KCZ10-004-016	QC	0.057	5	54	1.24	87	0.015	<20	1.83	0.04	0.15	<2	0.43	5	7
Reference Materials															
STD DS7	Standard	0.071	11	192	1.00	406	0.111	35	0.98	0.09	0.45	2	0.19	<5	<5
STD DS7	Standard	0.073	12	200	1.06	427	0.117	39	1.04	0.10	0.47	2	0.19	<5	5
STD OREAS45PA	Standard	0.035	15	822	0.10	184	0.128	<20	3.57	<0.01	0.08	<2	<0.05	54	16
STD OREAS45PA	Standard	0.034	15	817	0.10	179	0.130	<20	3.49	<0.01	0.07	<2	<0.05	55	15
STD OXC72	Standard														
STD OXC72	Standard														
STD OXH66	Standard														
STD OXH66	Standard														
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXH66 Expected															
STD OXC72 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.071	10	9	0.57	238	0.127	<20	1.10	0.10	0.49	<2	<0.05	<5	5
G1	Prep Blank	0.071	10	9	0.55	231	0.122	<20	1.00	0.08	0.47	<2	<0.05	<5	<5

Acme Analytical Laboratories (Vancouver) Ltd.
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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: September 28, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004145.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-005
P.O. Number
Number of Samples: 13

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	11	Crush split and pulverize 250g drill core to 200 mesh			VAN
1D01	13	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
3B01	13	Fire assay fusion Au by ICP-ES	30	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 28, 2010

CERTIFICATE OF ANALYSIS VAN10004145.1

Method		WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
Unit		kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
MDL		0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001
KCZ10-005-001	Drill Core	2.56	1	33	22	138	0.5	55	16	1079	3.52	76	<2	<2	168	0.7	<3	<3	36	4.60	0.095
KCZ10-005-002	Drill Core	1.88	2	35	27	130	0.5	53	16	585	3.39	716	<2	<2	61	0.8	<3	<3	24	2.00	0.047
KCZ10-005-003	Drill Core	4.32	<1	30	11	97	0.5	52	15	1145	3.20	552	<2	<2	274	0.6	<3	<3	26	5.93	0.172
KCZ10-005-004	Drill Core	2.51	3	31	36	212	0.5	37	12	1177	2.76	173	<2	<2	119	0.8	<3	<3	30	5.20	0.236
KCZ10-005-005	Drill Core	2.41	4	32	13	158	0.5	91	19	565	4.08	109	<2	<2	40	0.7	<3	<3	39	1.72	0.059
KCZ10-005-006	Drill Core	1.89	1	35	8	138	0.4	95	21	619	4.21	89	<2	2	114	0.7	<3	<3	49	2.16	0.069
KCZ10-005-006B	Rock Pulp	0.04	2	6	6	19	<0.3	4	3	355	1.67	<2	<2	5	14	<0.5	<3	<3	14	0.23	0.019
KCZ10-005-007	Drill Core	2.38	5	40	7	101	0.4	73	16	543	3.64	81	<2	<2	58	<0.5	<3	<3	21	2.07	0.076
KCZ10-005-008	Drill Core	2.03	1	34	12	136	0.3	81	19	426	3.96	120	<2	<2	65	0.5	<3	<3	46	1.46	0.072
KCZ10-005-009	Drill Core	1.09	4	36	17	75	0.6	57	16	544	3.13	541	<2	<2	53	<0.5	<3	<3	18	2.06	0.061
KCZ10-005-010	Drill Core	2.05	<1	36	6	119	<0.3	88	17	438	3.70	16	<2	2	36	<0.5	<3	<3	91	1.03	0.068
KCZ10-005-010S	Rock Pulp	0.04	4	173	12	55	>100	8	11	490	2.96	160	10	3	83	<0.5	4	9	90	1.48	0.056
KCZ10-005-011	Drill Core	1.75	3	51	12	119	0.4	59	18	691	4.14	19	<2	<2	60	<0.5	<3	<3	82	2.12	0.206

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Suite 200, 44 - 12th Ave. S.
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Project: Kalum
Report Date: September 28, 2010

CERTIFICATE OF ANALYSIS VAN10004145.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	3B
Analyte		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Au
Unit		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppb
MDL		1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5	2
KCZ10-005-001	Drill Core	6	37	1.17	61	0.011	<20	1.57	0.02	0.22	3	0.52	<5	<5	5
KCZ10-005-002	Drill Core	3	21	1.11	50	0.005	<20	1.43	<0.01	0.19	<2	0.72	<5	<5	41
KCZ10-005-003	Drill Core	7	23	1.07	51	0.006	<20	1.35	<0.01	0.19	7	0.54	<5	<5	98
KCZ10-005-004	Drill Core	7	28	1.25	59	0.013	<20	1.65	0.01	0.16	<2	0.23	<5	<5	54
KCZ10-005-005	Drill Core	5	57	1.88	59	0.004	<20	2.26	<0.01	0.20	<2	0.28	<5	<5	7
KCZ10-005-006	Drill Core	5	72	1.74	69	0.004	<20	2.33	0.01	0.20	<2	0.42	<5	<5	5
KCZ10-005-006B	Rock Pulp	6	13	0.22	118	0.074	<20	0.62	0.09	0.30	<2	<0.05	<5	<5	<2
KCZ10-005-007	Drill Core	4	24	1.25	48	0.003	<20	1.64	<0.01	0.18	<2	0.46	<5	<5	5
KCZ10-005-008	Drill Core	5	67	1.52	70	0.008	<20	2.24	0.01	0.23	<2	0.31	<5	<5	4
KCZ10-005-009	Drill Core	5	16	0.72	61	0.005	<20	1.36	0.01	0.24	<2	0.63	<5	<5	47
KCZ10-005-010	Drill Core	6	116	1.66	81	0.028	<20	2.46	0.03	0.19	<2	0.15	<5	<5	3
KCZ10-005-010S	Rock Pulp	7	12	0.84	153	0.147	<20	1.95	0.24	0.31	5	0.14	<5	<5	7893
KCZ10-005-011	Drill Core	8	75	1.59	67	0.008	<20	2.47	0.02	0.17	<2	0.60	<5	<5	<2

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 28, 2010

QUALITY CONTROL REPORT VAN10004145.1

	Method	WGHT	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Unit	kg	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	MDL	0.01	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01	0.001
Pulp Duplicates																					
KCZ10-005-010S	Rock Pulp	0.04	4	173	12	55	>100	8	11	490	2.96	160	10	3	83	<0.5	4	9	90	1.48	0.056
REP KCZ10-005-010S	QC		4	165	13	53	>100	8	11	481	2.90	152	8	3	83	<0.5	4	9	88	1.47	0.054
Reference Materials																					
STD DS7	Standard		21	103	68	411	1.1	55	10	643	2.44	53	<2	4	76	6.1	<3	<3	83	0.99	0.079
STD OREAS45PA	Standard		1	643	21	123	0.5	314	112	1125	17.37	6	<2	8	14	<0.5	<3	<3	225	0.25	0.039
STD OXC72	Standard																				
STD OXH66	Standard																				
STD DS7 Expected			21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93	0.08
STD OREAS45PA Expected			0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411	0.034
STD OXH66 Expected																					
STD OXC72 Expected																					
BLK	Blank		<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01	<0.001
BLK	Blank																				
BLK	Blank																				
Prep Wash																					
G1	Prep Blank	<0.01	<1	1	3	49	<0.3	3	4	575	2.00	<2	<2	6	61	<0.5	<3	<3	37	0.51	0.081
G1	Prep Blank	<0.01	<1	1	3	52	<0.3	3	5	615	2.09	<2	<2	5	63	<0.5	<3	<3	39	0.54	0.082

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Client: **TerraLogic Exploration Inc.**
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Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: September 28, 2010

QUALITY CONTROL REPORT VAN10004145.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	3B
	Analyte	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga	Au
	Unit	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppb
	MDL	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5	2
Pulp Duplicates															
KCZ10-005-010S	Rock Pulp	7	12	0.84	153	0.147	<20	1.95	0.24	0.31	5	0.14	<5	<5	7893
REP KCZ10-005-010S	QC	7	12	0.83	151	0.146	<20	1.93	0.24	0.31	4	0.13	<5	<5	
Reference Materials															
STD DS7	Standard	13	188	1.07	424	0.121	46	1.06	0.10	0.49	3	0.21	<5	<5	
STD OREAS45PA	Standard	17	864	0.11	191	0.135	<20	3.78	<0.01	0.08	<2	<0.05	58	9	
STD OXC72	Standard														197
STD OXH66	Standard														1298
STD DS7 Expected		13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19			
STD OREAS45PA Expected		16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03			
STD OXH66 Expected															1285
STD OXC72 Expected															205
BLK	Blank	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5	
BLK	Blank														<2
BLK	Blank														<2
Prep Wash															
G1	Prep Blank	9	11	0.58	213	0.124	<20	0.96	0.07	0.48	<2	<0.05	<5	<5	<2
G1	Prep Blank	9	10	0.62	231	0.133	<20	1.02	0.07	0.51	<2	<0.05	<5	<5	<2

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 24, 2010
Report Date: October 07, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004146.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-006
P.O. Number
Number of Samples: 20

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	18	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	20	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	20	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 07, 2010

CERTIFICATE OF ANALYSIS VAN10004146.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-006-001	Drill Core	1.43	<2	2	13	<3	91	0.3	4	9	1310	3.99	6	<2	<2	32	<0.5	<3	<3	60	1.81
KCZ10-006-002	Drill Core	1.26	<2	1	25	<3	95	<0.3	3	11	1793	4.13	6	<2	3	55	0.7	<3	3	65	3.09
KCZ10-006-003	Drill Core	3.04	38	<1	26	<3	73	<0.3	12	18	574	3.68	20	<2	<2	9	<0.5	<3	<3	35	0.21
KCZ10-006-004	Drill Core	3.05	<2	<1	16	<3	109	<0.3	13	21	654	6.77	12	<2	<2	14	<0.5	<3	<3	71	0.10
KCZ10-006-005	Drill Core	2.19	<2	<1	58	<3	103	<0.3	16	37	564	4.81	22	<2	<2	12	1.0	<3	5	36	0.12
KCZ10-006-006	Drill Core	1.59	20	2	120	<3	45	0.5	16	19	342	3.33	157	<2	2	15	<0.5	<3	<3	26	0.12
KCZ10-006-007	Drill Core	2.56	<2	<1	15	6	92	<0.3	4	11	1058	3.37	37	<2	<2	63	<0.5	<3	<3	53	2.91
KCZ10-006-008	Drill Core	2.76	<2	<1	15	4	128	<0.3	2	12	1321	4.26	27	<2	<2	80	0.7	<3	<3	31	4.22
KCZ10-006-009	Drill Core	3.13	19	<1	23	13	123	0.4	2	12	1154	4.25	65	<2	<2	118	0.7	<3	<3	38	4.01
KCZ10-006-010	Drill Core	0.66	13	1	50	63	96	0.9	4	9	853	2.43	123	<2	<2	61	1.4	3	<3	10	2.41
KCZ10-006-011	Drill Core	1.23	<2	<1	4	6	116	<0.3	4	13	833	4.46	6	<2	<2	107	0.9	<3	<3	111	3.32
KCZ10-006-012	Drill Core	3.62	<2	<1	5	7	69	<0.3	3	13	870	4.07	11	<2	<2	100	0.6	<3	<3	110	2.82
KCZ10-006-013	Drill Core	2.38	18	<1	42	18	79	<0.3	19	19	414	4.13	371	<2	<2	21	0.6	<3	<3	25	0.37
KCZ10-006-014	Drill Core	2.12	10	<1	27	16	105	0.4	20	17	796	5.74	525	<2	2	35	0.8	<3	<3	37	1.07
KCZ10-006-014S	Rock Pulp	0.04	8253	4	172	10	49	>100	8	10	492	2.96	156	6	3	82	0.5	4	11	92	1.51
KCZ10-006-015	Drill Core	2.45	<2	1	58	165	193	1.5	35	15	653	4.21	213	<2	<2	50	3.0	<3	4	28	1.56
KCZ10-006-016	Drill Core	2.53	6	1	48	44	114	0.7	37	15	627	4.13	200	<2	3	76	1.4	<3	<3	25	2.07
KCZ10-006-017	Drill Core	3.00	53	<1	48	22	88	0.5	37	16	379	4.11	2047	<2	3	54	0.8	6	<3	23	1.37
KCZ10-006-017B	Rock Pulp	0.04	<2	2	5	4	17	<0.3	3	3	350	1.63	3	<2	5	13	<0.5	<3	<3	13	0.22
KCZ10-006-018	Drill Core	1.04	5	<1	19	10	70	0.3	31	14	353	4.20	55	<2	3	23	0.7	4	<3	23	1.15

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Client: **TerraLogic Exploration Inc.**
Suite 200, 44 - 12th Ave. S.
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Project: Kalum
Report Date: October 07, 2010

CERTIFICATE OF ANALYSIS VAN10004146.1

Method		1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
MDL		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-006-001	Drill Core	0.109	6	3	0.90	40	0.002	<20	2.26	0.06	0.07	<2	<0.05	<5	7
KCZ10-006-002	Drill Core	0.125	7	3	1.04	37	0.002	<20	2.46	0.07	0.08	<2	<0.05	<5	7
KCZ10-006-003	Drill Core	0.018	3	12	0.52	47	0.001	<20	1.88	0.03	0.13	<2	<0.05	<5	<5
KCZ10-006-004	Drill Core	0.035	3	18	0.77	26	0.002	<20	3.23	0.03	0.08	<2	<0.05	8	9
KCZ10-006-005	Drill Core	0.058	10	11	0.56	37	0.002	<20	2.40	0.04	0.12	<2	0.37	5	7
KCZ10-006-006	Drill Core	0.051	3	11	0.24	35	<0.001	<20	1.49	0.07	0.14	<2	0.72	<5	<5
KCZ10-006-007	Drill Core	0.116	4	4	0.83	42	0.001	<20	1.66	0.07	0.07	<2	0.20	<5	6
KCZ10-006-008	Drill Core	0.185	6	<1	1.02	65	0.002	<20	1.53	0.06	0.14	<2	0.23	<5	5
KCZ10-006-009	Drill Core	0.182	7	<1	1.40	56	0.003	<20	2.29	0.03	0.18	<2	0.35	<5	7
KCZ10-006-010	Drill Core	0.106	3	1	0.40	66	<0.001	<20	1.14	0.01	0.24	<2	0.56	<5	<5
KCZ10-006-011	Drill Core	0.110	8	16	1.71	29	0.001	<20	2.78	0.02	0.08	<2	0.20	9	9
KCZ10-006-012	Drill Core	0.107	9	16	1.91	110	0.002	<20	2.77	0.05	0.12	<2	0.19	8	9
KCZ10-006-013	Drill Core	0.019	4	13	0.66	66	0.002	<20	1.90	0.01	0.23	<2	0.25	<5	6
KCZ10-006-014	Drill Core	0.136	4	12	1.09	69	0.005	<20	2.68	0.01	0.26	<2	0.44	<5	7
KCZ10-006-014S	Rock Pulp	0.052	7	12	0.83	154	0.146	<20	2.03	0.24	0.31	4	0.12	<5	6
KCZ10-006-015	Drill Core	0.046	3	14	1.00	63	0.002	<20	1.88	0.01	0.25	<2	1.19	<5	<5
KCZ10-006-016	Drill Core	0.039	2	14	0.82	69	0.001	<20	1.75	0.01	0.25	<2	1.30	<5	<5
KCZ10-006-017	Drill Core	0.037	2	13	0.90	59	<0.001	<20	1.60	0.02	0.22	<2	1.89	<5	<5
KCZ10-006-017B	Rock Pulp	0.017	5	13	0.21	119	0.072	<20	0.62	0.08	0.29	<2	<0.05	<5	<5
KCZ10-006-018	Drill Core	0.030	2	12	0.99	54	<0.001	<20	1.69	0.02	0.19	<2	2.04	<5	<5

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Project: Kalum
Report Date: October 07, 2010

QUALITY CONTROL REPORT VAN10004146.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
KCZ10-006-014S	Rock Pulp	0.04	8253	4	172	10	49	>100	8	10	492	2.96	156	6	3	82	0.5	4	11	92	1.51
REP KCZ10-006-014S	QC			3	171	10	49	>100	8	10	487	2.96	154	8	3	81	0.6	<3	11	92	1.50
Reference Materials																					
STD DS7	Standard			19	99	63	397	1.6	50	8	609	2.34	52	<2	5	69	5.6	5	5	80	0.93
STD OREAS45PA	Standard			<1	612	12	110	1.0	294	102	1083	16.89	8	<2	7	13	<0.5	<3	<3	230	0.25
STD OXC72	Standard		205																		
STD OXC72	Standard		205																		
STD OXH66	Standard		1367																		
STD OXH66	Standard		1369																		
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXH66 Expected			1285																		
STD OXC72 Expected			205																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	<2	<1	1	<3	43	0.3	3	3	544	1.92	2	<2	5	59	<0.5	<3	<3	34	0.47
G1	Prep Blank	<0.01	<2	<1	1	<3	43	<0.3	3	3	548	1.82	<2	<2	5	54	<0.5	<3	<3	33	0.43

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Suite 200, 44 - 12th Ave. S.
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Project: Kalum
Report Date: October 07, 2010

QUALITY CONTROL REPORT VAN10004146.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Pulp Duplicates															
KCZ10-006-014S	Rock Pulp	0.052	7	12	0.83	154	0.146	<20	2.03	0.24	0.31	4	0.12	<5	6
REP KCZ10-006-014S	QC	0.052	7	12	0.82	154	0.144	<20	1.97	0.23	0.31	4	0.12	<5	6
Reference Materials															
STD DS7	Standard	0.071	11	192	1.00	406	0.111	35	0.98	0.09	0.45	2	0.19	<5	<5
STD OREAS45PA	Standard	0.035	15	822	0.10	184	0.128	<20	3.57	<0.01	0.08	<2	<0.05	54	16
STD OXC72	Standard														
STD OXC72	Standard														
STD OXH66	Standard														
STD OXH66	Standard														
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXH66 Expected															
STD OXC72 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.072	9	8	0.52	227	0.112	<20	0.93	0.08	0.46	<2	<0.05	<5	5
G1	Prep Blank	0.071	8	8	0.51	228	0.107	<20	0.88	0.07	0.45	<2	<0.05	<5	<5

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Submitted By: Chris Gallagher
Receiving Lab: Canada-Vancouver
Received: August 31, 2010
Report Date: October 07, 2010
Page: 1 of 2

CERTIFICATE OF ANALYSIS VAN10004270.1

CLIENT JOB INFORMATION

Project: Kalum
Shipment ID: KM10-007
P.O. Number
Number of Samples: 7

SAMPLE DISPOSAL

STOR-PLP Store After 90 days Invoice for Storage
DISP-RJT Dispose of Reject After 90 days

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Method Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
R200-250	7	Crush split and pulverize 250g drill core to 200 mesh			VAN
3B01	7	Fire assay fusion Au by ICP-ES	30	Completed	VAN
1D01	7	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN

ADDITIONAL COMMENTS

Invoice To: TerraLogic Exploration Inc.
Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7
Canada

CC: Jesse Campbel

BRITISH COLUMBIA CERTIFIED ASSAYER
CLARENCE LEONG
GENERAL MANAGER

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Suite 200, 44 - 12th Ave. S.
Cranbrook BC V1C 2R7 Canada

Project: Kalum
Report Date: October 07, 2010

CERTIFICATE OF ANALYSIS VAN10004270.1

Method		WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
KCZ10-006-019	Drill Core	2.35	102	18	85	125	2128	1.7	55	15	688	3.81	2511	<2	<2	73	18.7	14	<3	28	2.01
KCZ10-006-020	Drill Core	2.36	8	11	68	17	135	0.8	63	15	203	4.08	42	<2	3	19	0.8	5	<3	18	0.41
KCZ10-006-021	Drill Core	1.17	<2	1	27	5	60	<0.3	7	9	627	3.67	18	<2	<2	85	<0.5	<3	<3	33	2.44
KCZ10-006-022	Drill Core	2.85	3	2	49	13	99	<0.3	57	16	374	4.37	3501	<2	3	37	<0.5	27	<3	30	0.98
KCZ10-006-023	Drill Core	2.44	5	2	51	4	134	<0.3	54	15	203	4.33	407	<2	3	19	<0.5	13	<3	26	0.22
KCZ10-006-024	Drill Core	2.20	221	1	43	6	101	0.5	42	13	666	4.09	9378	<2	2	85	<0.5	16	<3	20	2.59
KCZ10-006-025	Drill Core	3.51	19	2	46	6	91	0.3	44	14	629	4.28	1099	<2	2	182	<0.5	12	<3	21	1.97

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Report Date: October 07, 2010

CERTIFICATE OF ANALYSIS VAN10004270.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
KCZ10-006-019	Drill Core	0.057	3	11	0.74	49	0.001	<20	1.19	0.02	0.21	<2	1.73	<5	<5
KCZ10-006-020	Drill Core	0.039	4	10	0.53	54	0.003	<20	1.00	0.03	0.23	<2	2.39	<5	<5
KCZ10-006-021	Drill Core	0.141	4	5	0.78	48	0.003	<20	1.89	0.12	0.12	<2	1.05	<5	<5
KCZ10-006-022	Drill Core	0.075	4	19	0.89	45	<0.001	<20	1.66	0.05	0.20	<2	1.44	<5	<5
KCZ10-006-023	Drill Core	0.034	4	14	0.92	41	<0.001	<20	1.41	0.06	0.18	<2	1.48	<5	<5
KCZ10-006-024	Drill Core	0.052	3	10	0.64	35	<0.001	<20	0.89	0.06	0.18	<2	1.78	<5	<5
KCZ10-006-025	Drill Core	0.040	3	13	1.02	58	<0.001	<20	1.15	0.03	0.23	<2	1.38	<5	<5

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Project: Kalum
Report Date: October 07, 2010

QUALITY CONTROL REPORT VAN10004270.1

	Method	WGHT	3B	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	Wgt	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	kg	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	0.01	2	1	1	3	1	0.3	1	1	2	0.01	2	2	2	1	0.5	3	3	1	0.01
Reference Materials																					
STD DS7	Standard			22	102	69	408	1.0	55	9	627	2.40	54	<2	5	79	5.9	<3	3	83	0.98
STD OREAS45PA	Standard			2	617	18	117	0.5	303	106	1063	16.58	6	2	7	14	<0.5	<3	<3	215	0.24
STD OXC72	Standard		205																		
STD OXH66	Standard		1369																		
STD DS7 Expected				21	109	71	411	0.9	56	10	627	2.39	48	0.07	4	68	6.4	5	5	84	0.93
STD OREAS45PA Expected				0.9	600	19	119	0.3	281	104	1130	16.559	4.2	0.043	6	14	0.09	0.13	0.18	221	0.2411
STD OXH66 Expected			1285																		
STD OXC72 Expected			205																		
BLK	Blank			<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank		<2																		
BLK	Blank		<2																		
Prep Wash																					
G1	Prep Blank	<0.01	3	<1	9	20	49	0.8	4	4	624	2.08	29	<2	5	104	<0.5	8	<3	39	0.55

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Project: Kalum
Report Date: October 07, 2010

QUALITY CONTROL REPORT VAN10004270.1

	Method	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D	1D
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Sc	Ga
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	5	5
Reference Materials															
STD DS7	Standard	0.076	13	202	1.05	410	0.118	36	1.06	0.10	0.46	2	0.20	<5	<5
STD OREAS45PA	Standard	0.037	16	836	0.11	178	0.139	<20	3.67	<0.01	0.07	<2	<0.05	56	9
STD OXC72	Standard														
STD OXH66	Standard														
STD DS7 Expected		0.08	13	179	1.05	410	0.124	39	0.959	0.073	0.44	4	0.19		
STD OREAS45PA Expected		0.034	16.2	873	0.095	187	0.124		3.34	0.011	0.0665	0.011	0.03		
STD OXH66 Expected															
STD OXC72 Expected															
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<5	<5
BLK	Blank														
BLK	Blank														
Prep Wash															
G1	Prep Blank	0.082	9	9	0.59	240	0.127	<20	1.06	0.09	0.51	<2	<0.05	<5	<5

APPENDIX VI
BEDROCK GEOLOGIC MAPPING

6.1 STATION LOCATIONS AND DESCRIPTIONS

Appendix 6.1 Geological Stations and Descriptions

Station Number	Type	Location Method	UTM Zone	Easting	Northing
CGKMG128	outcrop	GPS	9	504241	6068585
CGKMG129	outcrop	GPS	9	504247	6068575
CGKMG133	outcrop	DGPS-COR	9	504391	6068497
CGKMG134	outcrop	DGPS-COR	9	504232	6068584
CGKMG135	outcrop	DGPS-COR	9	504238	6068578
CGKMG136	outcrop	DGPS-COR	9	504250	6068565
CGKMG137	outcrop	DGPS-COR	9	504256	6068558
CGKMG138	outcrop	DGPS-COR	9	504267	6068522
CGKMG139	outcrop	DGPS-COR	9	504283	6068455
CGKMG130	outcrop	GPS	9	504257	6068575
CGKMG131	outcrop	GPS	9	504276	6068565
CGKMG132	outcrop	GPS	9	504260	6068562

APPENDIX VII
KALUM PETROGRAPHIC REPORT

PETROGRAPHIC REPORT

KALUM PROJECT:
NORTHWEST BC

Nov 15, 2010

Prepared for:
Jim Ryley, Senior Geologist
TerraLogic Exploration Services
Suite 200, 44 -12th Ave South
Cranbrook, BC
Canada, V1C 2R7

Prepared by:
Kathryn Dunne, M.Sc. P.Geo.
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Salmon Arm, BC
Canada V1E 1S3

phone: 250-804-0729
kgeo@telus.net

Background

Four drill core samples were received from Jim Ryley on behalf of TerraLogic Exploration Services in September, 2010 for petrographic analysis. The samples were taken from the Kalum property situated approximately 40 km northeast of Terrace, BC. A brief geology of the region and hand sample descriptions of samples were provided. Petrographic analysis was requested by Gerry Carlson of Windstorm Resources. The goal of the work was basic transmitted and reflected light observations, including description of lithologies, alteration and mineralization. Four polished thin sections were prepared from the samples at Vancouver Petrographics Ltd. Kathryn Dunne, P.Geo. carried out petrographic analysis at her office in Salmon Arm, B.C. All percentages in the descriptions are approximate based on visual estimation.

Summary

Sample List

The samples in this report comprise variably altered and mineralized intrusive rocks and hornfels:

Sample KCZ10-001A is a selectively sericite and carbonate-altered, thinly banded hornfels. Layers of biotite in this sample probably represent original sedimentary bedding. Minor pyrrhotite and associated traces of chalcopyrite occur as very fine to fine clusters of grains, disseminated and partly replacing biotite.

Sample KCZ10-001B is a selectively pervasive carbonate, sericite and rutile-altered microquartz diorite porphyry. The porphyry comprises approximately 60% fine to medium-grained phenocrysts in a very fine-grained matrix. Phenocrysts are dominated by altered plagioclase with lesser altered former mafic phase(s) and approximately 5% resorbed quartz. Traces of fine-grained pyrite occur disseminated.

Sample KCZ10-001C is a selectively pervasive carbonate, sericite-illite, chlorite and ilmenite-altered fine to coarse-grained seriate inequigranular amphibole-biotite quartz diorite. Plagioclase (up to 3 mm crystals) ranges from oligoclase to labradorite in composition and is locally zoned. Plagioclase is extensively replaced by sericite-illite and patchy carbonate. Quartz is mainly fine-grained, anhedral and sometimes interstitial. Biotite and former amphibole (up to 7 mm crystals) are replaced by carbonate, chlorite, ilmenite, locally patchy pyrrhotite and traces of chalcopyrite, rare sphalerite, pyrite and ?galena. The sulphides also occur as patchy disseminated aggregates in the rock.

Sample KCZ10-001D is a selectively epidote, chlorite, ?clay-altered, fine to medium-grained seriate inequigranular hornblende diorite with an altered mafic autolith of similar composition to the host diorite. The diorite comprises medium-grained hornblende laths and fine to medium-grained extensively epidote-chlorite-?clay altered ?plagioclase laths embedded in a groundmass of fine to very fine-grained hornblende and plagioclase laths. Minor pyrite occurs disseminated. Traces of pyrrhotite and chalcopyrite occur associated with epidote alteration.

Sample: KCZ10-001A **Offcut #: AX-1**


Core sample; scale in cm

LITHOLOGY:	Hornfels
ALTERATION MINERALS:	Sericite, carbonate
ALTERATION:	Sericitic
MINERALIZATION:	Pyrrhotite-(chalcopyrite)
VEINLETS/FRACTURES:	Calcite

Hand Sample Description:
Medium grey to light olive-grey thinly banded hornfels. Minor very fine-grained brassy sulphide throughout. Locally weak reaction to magnet. Reaction of open fracture coating to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrate stain (no yellow stain, see photo below).


Etched and stained section offcut; scale in mm

Polished Thin Section Description:
This section is a selectively sericite, carbonate –altered, thinly banded hornfels. The hornfels comprises fine-grained quartz, sericite-carbonate altered former feldspar and biotite with minor pyrrhotite, graphite and muscovite. Layers of biotite in this sample probably represent original sedimentary bedding. Quartz and minor muscovite form thin bands. Pyrrhotite (~3%) occurs as very fine to fine, anhedral clusters of grains, disseminated and partly replacing biotite. Traces of chalcopyrite occur associated with pyrrhotite. Clusters of sulphides and associated carbonate alteration possibly replace a former fine spotted texture.

Sample: KCZ10-001A **Offcut #: AX-1**

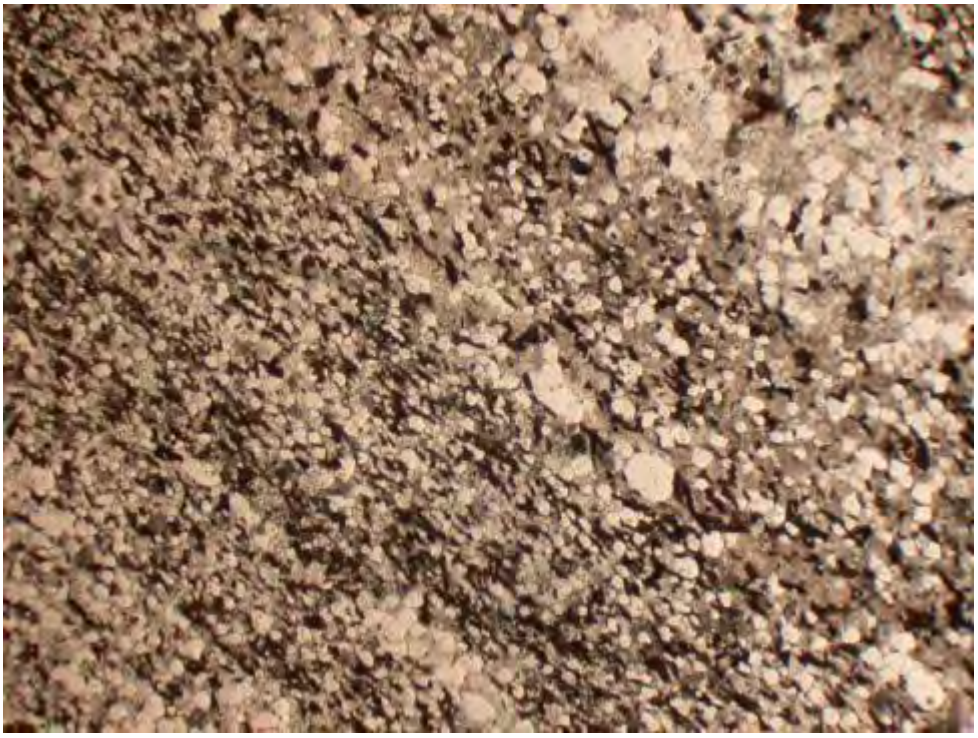
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Sericite	35	very fine-grained, anhedral to flaky aggregates, replaces former fine-grained (0.05 -0.15 mm) feldspar grains	
Quartz	30	-fine-grained (0.05 -0.15 mm), anhedral, occurs with sericite-carbonate altered feldspar and biotite; -fine-grained (0.2 -0.3 mm) occurs with muscovite in thin bands (0.2 mm to 1.4 mm wide)	
Biotite	20	fine-grained (0.05-0.2 mm), forms layers representing original sedimentary bedding (laminae)	
Carbonate	7	very fine-grained, anhedral patchy aggregates, occurs with sericite as replacement of former fine-grained feldspar grains	

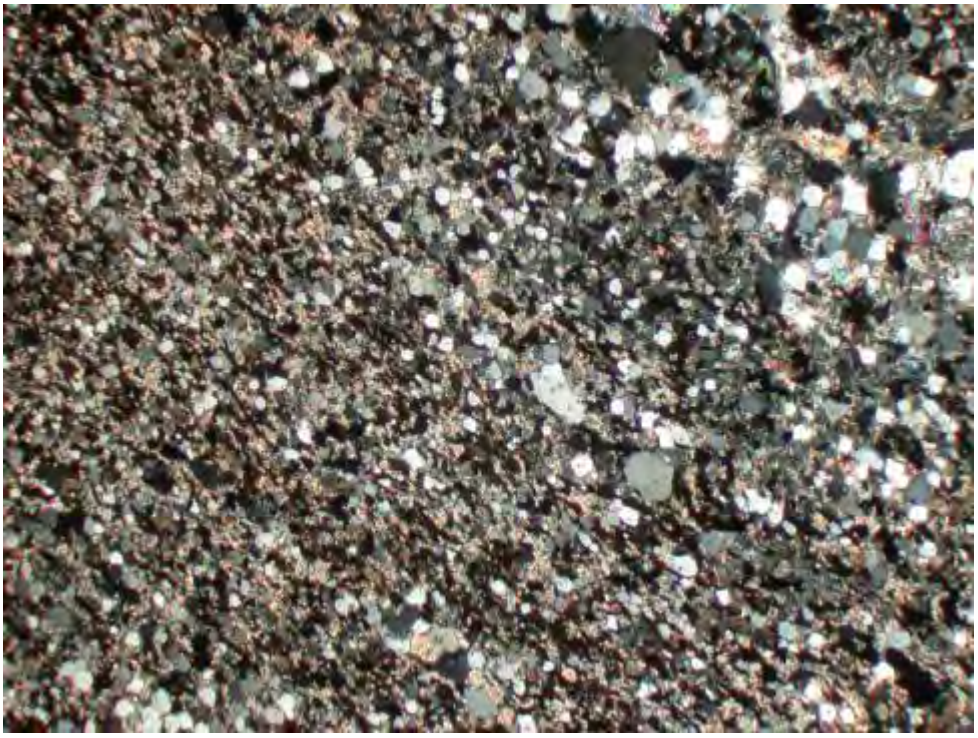
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Pyrrhotite	3	fine to very fine-grained (0.03 – 0.08 mm), anhedral grains and aggregate, occur as clusters (possible former spotted texture), disseminated and partly replacing biotite	
Graphite	2	very fine-grained, platy, partly replaces biotite	
Muscovite	2	fine-grained (0.05-0.3 mm), plates, occurs in thin bands (0.2 mm to 1.4 mm wide) with quartz	
Plagioclase	tr	fine-grained, relict grains, virtually completely replaced by sericite and patchy carbonate	
Rutile	tr	very fine-grained, partly replaces biotite	
Chalcopyrite	tr	fine to very fine-grained (0.03 – 0.08 mm), anhedral grains, occurs associated with pyrrhotite in clusters and disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

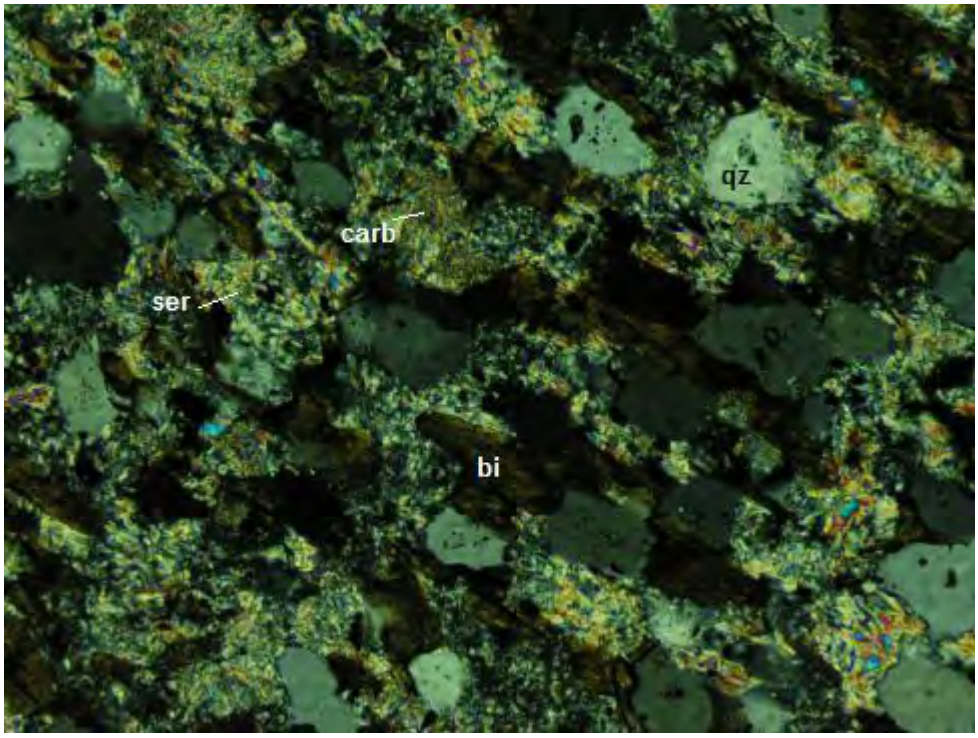


A



B

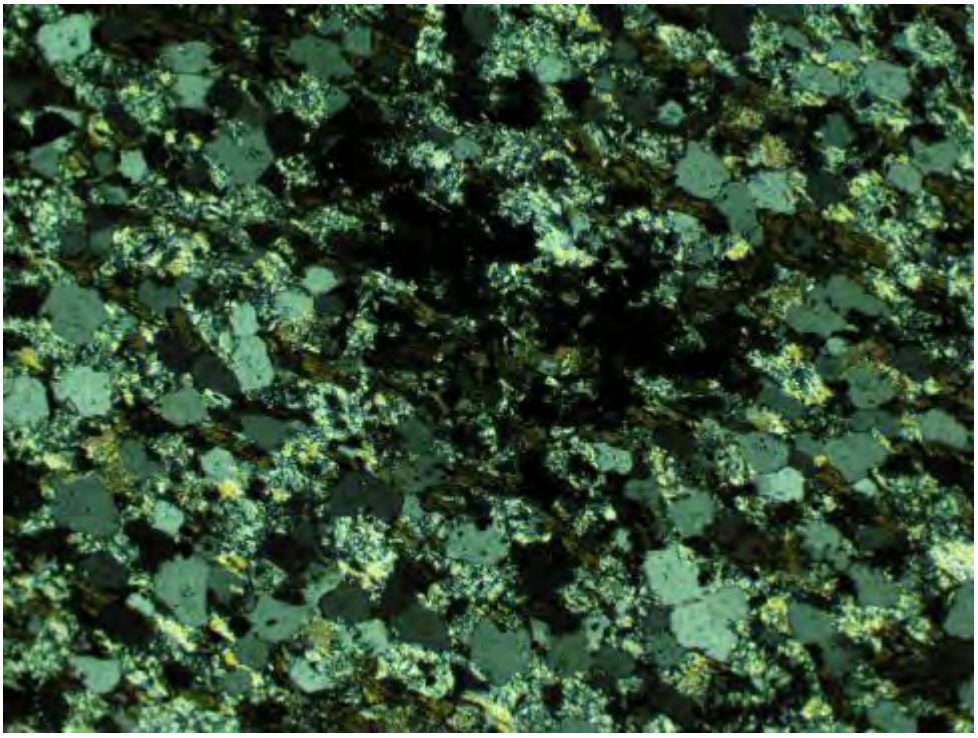
Sample: KCZ10-001A
A&B) Overview of sericite-carbonate altered hornfels. Note layers of biotite probably represent original sedimentary bedding. A) PPL, B) XPL, FOV = ~4.5 mm.



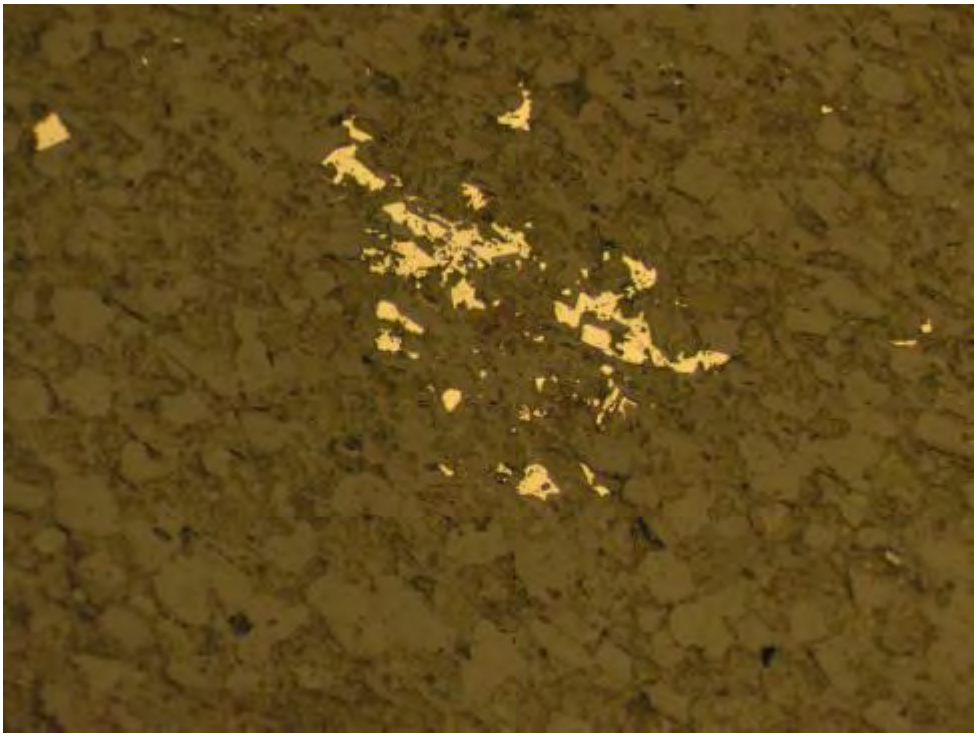
C

D

Sample: KCZ10-001A
C) Detailed view of sericite and carbonate replacement of former fine-grained feldspar in hornfels. XPL, FOV = ~ 0.7 mm. D) Distribution of pyrrhotite within sample. RL, FOV = ~ 4.5 mm.

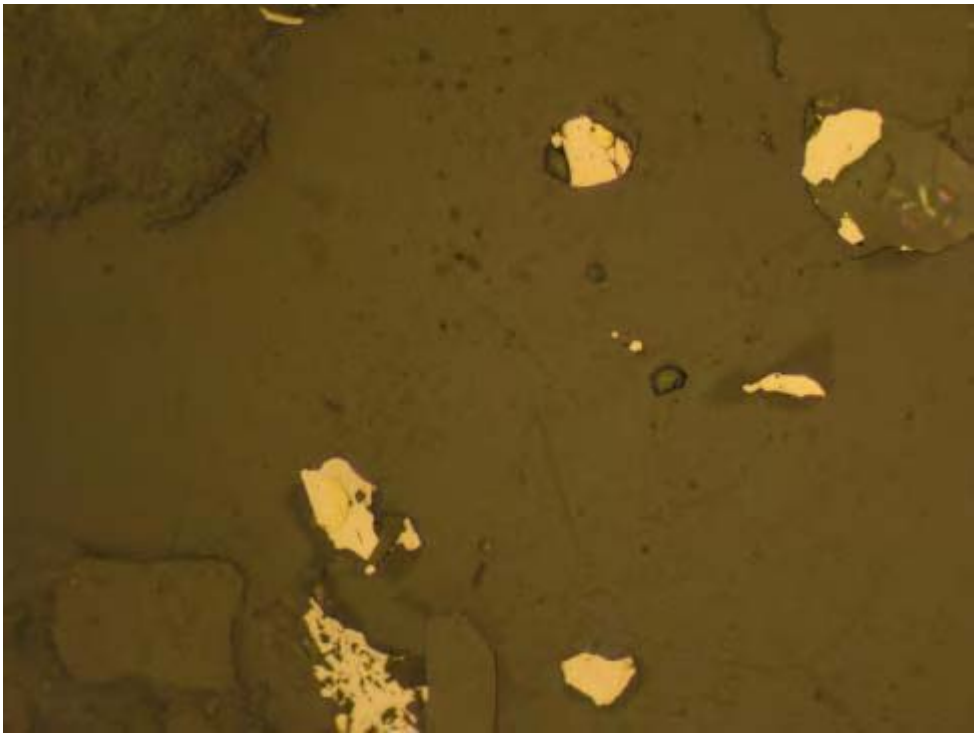


E



F

Sample: KCZ10-001A
E&F) Same view of fine anhedral cluster of pyrrhotite grains associated with carbonate alteration within hornfels. Possible replacement of former ?spotted texture. E) XPL, F) RL, FOV = ~ 1.3 mm.



G

Sample: KCZ10-001A

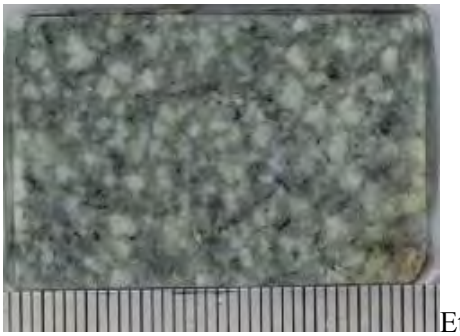
G) Detailed view of chalcopyrite associated with pyrrhotite within quartz-muscovite bands. RL, FOV = ~ 0.7 mm.

Sample: KCZ10-001B **Offcut #: AX-2**


Core sample, scale in cm

LITHOLOGY:	Microquartz diorite porphyry
ALTERATION MINERALS:	Carbonate (?dolomite), sericite, rutile
ALTERATION:	Sericitic
MINERALIZATION:	(Pyrite)

Hand Sample Description:
Microquartz diorite porphyry with approximately 50% altered greenish-white plagioclase crystals (2-3 mm size), ~5% resorbed quartz phenocrysts (up to 2 mm size) and ~3-5% dark-grey, acicular altered mafic phenocrysts in a very fine-grained medium-grey groundmass. Traces of very fine-grained disseminated pyrite. No reaction to magnet. No reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrate stain (no yellow stain, see photo below).


Etched and stained section offcut; scale in mm

Polished Thin Section Description:
This section is a selectively pervasive carbonate, sericite, rutile-altered microquartz diorite porphyry. The phenocrysts (~60% of the rock) comprise fine to medium-grained (0.2 to 3 mm) eu-subhedral plagioclase, sub-anhedral former mafic phase(s) and anhedral resorbed quartz. Plagioclase ranges from albite to oligoclase in composition is extensively replaced by very fine-grained sericite, patchy colourless carbonate aggregate and locally quartz. Former mafic phenocrysts (0.4-2 mm size) are replaced by sericite and Ti±Fe -oxides (ilmenite replaced by rutile and trace hematite) or carbonate. Ti±Fe-oxide distribution highlights amphibole cleavage traces in many of the former mafic phases. The microquartz diorite porphyry has a very fine-grained allotriomorphic matrix (0.01-0.05 mm) composed of anhedral crystals of plagioclase and quartz with sericite and carbonate alteration. Apatite occurs disseminated as an accessory mineral in the rock.

Sample: KCZ10-001B **Offcut #: AX-2**

HOST ROCK: 100%
MAJOR MINERALS

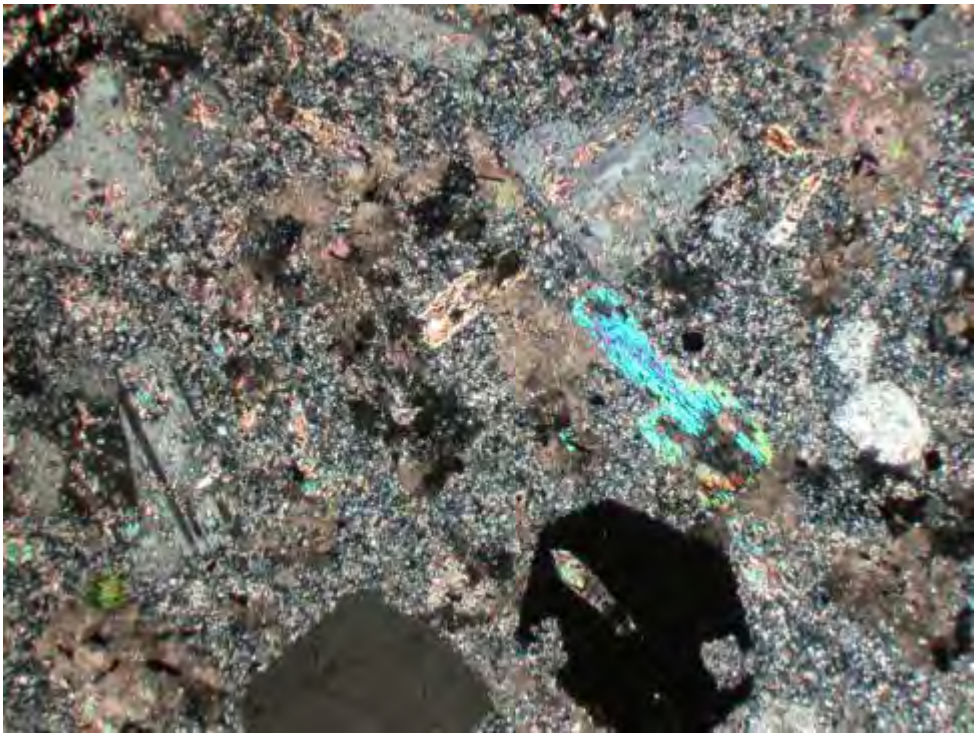
Mineral	%	Distribution & Characteristics*	Optical
Plagioclase	~30	-(~15%) fine to medium-grained (0.3- 3 mm), subhedral aggregates, extensively replaced by sericite, patchy colourless carbonate aggregate and locally quartz; -(~15% estimate) very fine-grained, groundmass, replaced by sericite and carbonate;	An $_{0\text{-}30}$ (based on 4 estimates)
Carbonate, ?dolomite	27	fine to very fine-grained, anhedral, occurs overprinting sericite as selective replacement of plagioclase and former mafic phases	colourless
Sericite	25	fine to very fine-grained (< 0.15 mm), anhedral to flaky aggregates, occurs as selective replacement of plagioclase phenocrysts and groundmass, overprinted by patchy colourless carbonate; fine to very fine-grained, flaky aggregates, occurs with carbonate, ilmenite, rutile and hematite partly replacing former fine to medium-grained (0.4-2 mm) tabular mafic phenocrysts	
Quartz	~15	-(5%) fine to medium-grained (0.2- 3 mm), resorbed phenocrysts; -(~10% estimate) very fine-grained, groundmass; -(tr) fine-grained, locally partly replaces plagioclase	

MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Rutile	2	very fine-grained, replaces ilmenite	
Ilmenite	tr	fine to very fine-grained (< 80 μm), subhedral aggregate, distribution highlights former cleavage traces (including amphibole cleavage), occurs with sericite as replacement of former mafic phases, extensively replaced by rutile and hematite	
Hematite	tr	very fine-grained, replaces ilmenite	red in PPL
Apatite	tr	fine to very fine-grained (< 0.1 mm), disseminated	high relief
Pyrite	tr	fine-grained (0.05-0.15 mm), sub-anhedral, disseminated	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm

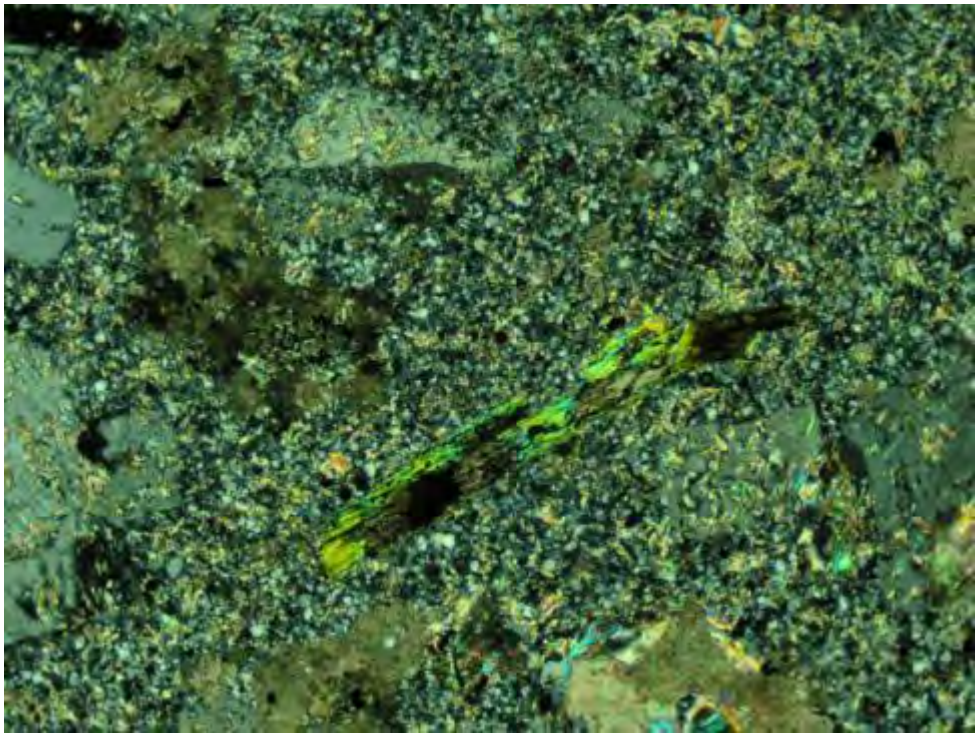
A



B

Sample: KCZ10-001B

A&B) Representative view of microquartz diorite porphyry. Note plagioclase extensively replaced by patchy sericite-carbonate and former mafic phases replaced by carbonate or sericite-carbonate-rutile aggregate. Resorbed quartz phenocrysts in lower part of photo. A) PPL, B) XPL, FOV = ~4.5 mm.



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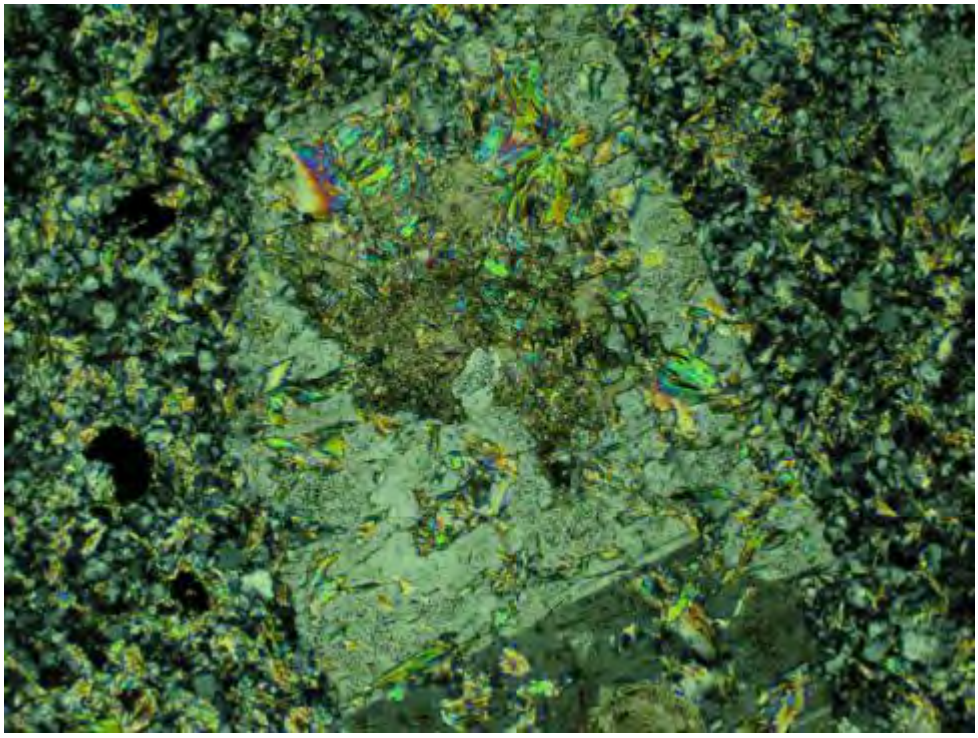
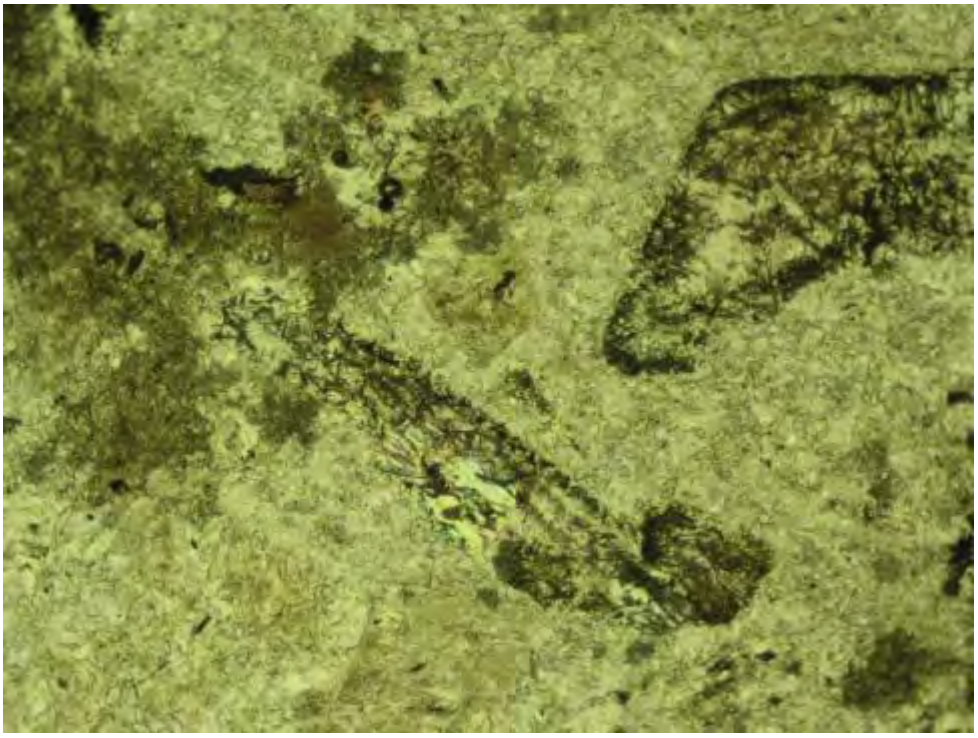


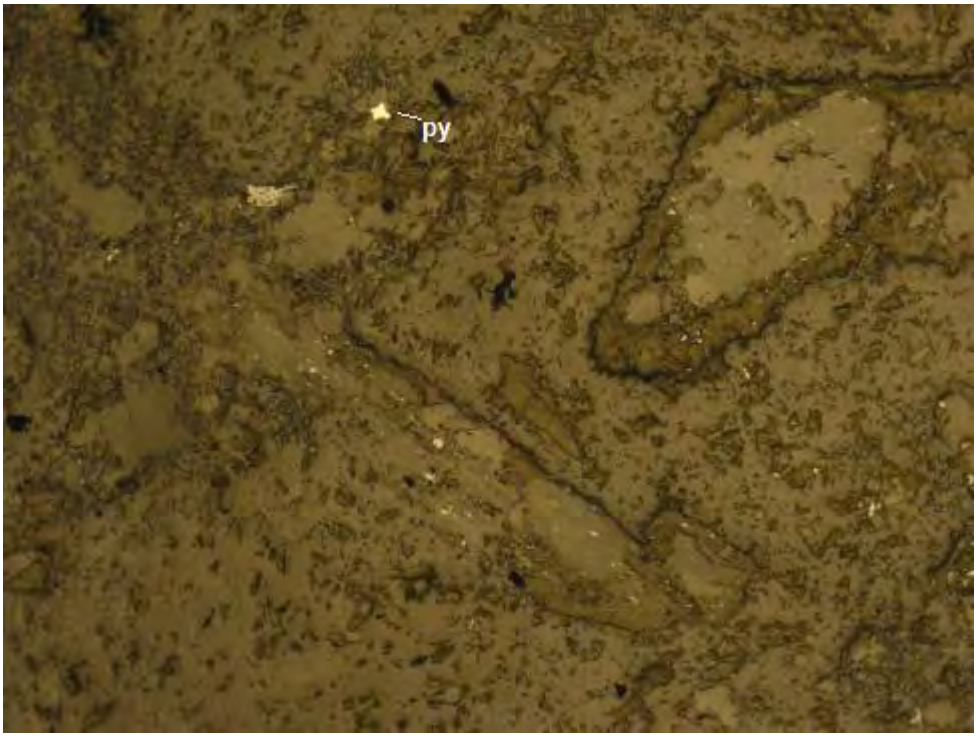
D

Sample: KCZ10-001B

C) Former mafic phenocryst partly replaced by sericite-carbonate-rutile aggregate (centre); patchy carbonate and sericite replacement of other phenocrysts and matrix. XPL, FOV = ~ 2.6 mm. D) Detailed view of plagioclase phenocryst and very fine-grained matrix partly replaced by sericite and patchy carbonate aggregate. XPL, FOV = ~ 1.3 mm.



E



F

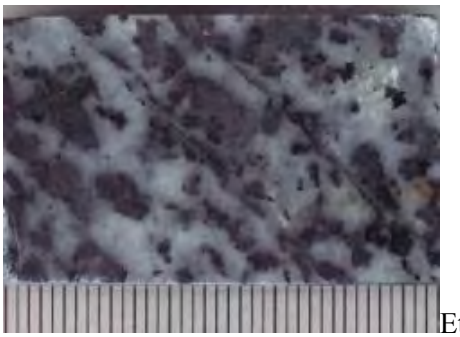
Sample: KCZ10-001B
E&F) Ti±Fe-oxide distribution highlights amphibole cleavage traces in former mafic phenocrysts. Note trace pyrite (top). E) PPL, F) XPL, FOV = ~ 2.6 mm.

Sample: KCZ10-001C **Offcut #: AX-3**

Core sample, scale in cm

LITHOLOGY:	Amphibole-biotite quartz diorite
ALTERATION MINERALS:	Carbonate, sericite-illite, chlorite, ilmenite
ALTERATION:	Propylitic
MINERALIZATION:	(Pyrrhotite, chalcopyrite, pyrite, sphalerite, ?galena)
VEINLETS/FRACTURES:	Carbonate±quartz; Carbonate-chlorite±ilmenite

Hand Sample Description:
Fine to coarse-grained quartz diorite comprising approximately 30% altered greenish-black former mafic crystals (3-7 mm size), ~60% white altered plagioclase crystals (up to 3 mm size) and ~10% fine-grained translucent quartz. Traces of disseminated pyrite. No reaction to magnet. No reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrate stain (no yellow stain, see photo below).


Etched and stained section offcut; scale in mm

Polished Thin Section Description:
This section is a selectively pervasive carbonate, sericite-illite, chlorite, ilmenite-altered, fine to coarse-grained (0.1 to 7 mm), seriate inequigranular amphibole-biotite quartz diorite. The quartz diorite has hypidiomorphic texture formed by euhedral and subhedral crystals of plagioclase, former mafic phases (amphibole and biotite) and anhedral quartz. Plagioclase occurs locally poikilitically enclosed in the former mafic phases. Plagioclase is ranges from oligoclase to labradorite in composition and is locally zoned. Plagioclase (up to 3 mm crystals) is extensively replaced by very fine-grained sericite-illite and patchy carbonate aggregate. Quartz is mainly fine-grained, anhedral and sometimes interstitial. Biotite and former amphibole (up to 7 mm crystals) are replaced by carbonate, chlorite, ilmenite, locally patchy pyrrhotite and traces of chalcopyrite, rare sphalerite, pyrite and ?galena. These sulphides also occur as patchy disseminated aggregates in the rock. Ilmenite distribution highlights amphibole cleavage traces in many of the former mafic phases. Apatite occurs disseminated as an accessory mineral in the rock. Carbonate occurs locally with very fine-grained quartz and locally chlorite-ilmenite filling microfractures.

Sample: KCZ10-001C **Offcut #: AX-3**

HOST ROCK: 98%
MAJOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Carbonate, ?dolomite-ankerite	30	fine to very fine-grained, anhedral, occurs with chlorite, iron carbonate and ilmenite as pervasive replacement of former amphibole and biotite; occurs as patchy replacement of plagioclase	colourless to patchy brown
Sericite-illite	15	very fine-grained, anhedral to flaky aggregates, occurs as selective replacement of plagioclase, overprinted by patchy colourless carbonate	
Plagioclase	15	fine to medium-grained (< 3 mm), subhedral aggregates, locally zoned, extensively replaced by sericite-illite and patchy colourless carbonate aggregate	An_{15-55} (based on 4 estimates)
Quartz	13	fine to medium-grained (< 2 mm), anhedral aggregates, sometimes interstitial to plagioclase	
Biotite	10	fine to medium-grained (0.5-2.5 mm), phenocrysts, partly replaced by chlorite, ilmenite, carbonate and sulphides	brown
Chlorite	10	very fine-grained, anhedral aggregates, occurs replacing former biotite and amphibole phenocrysts	

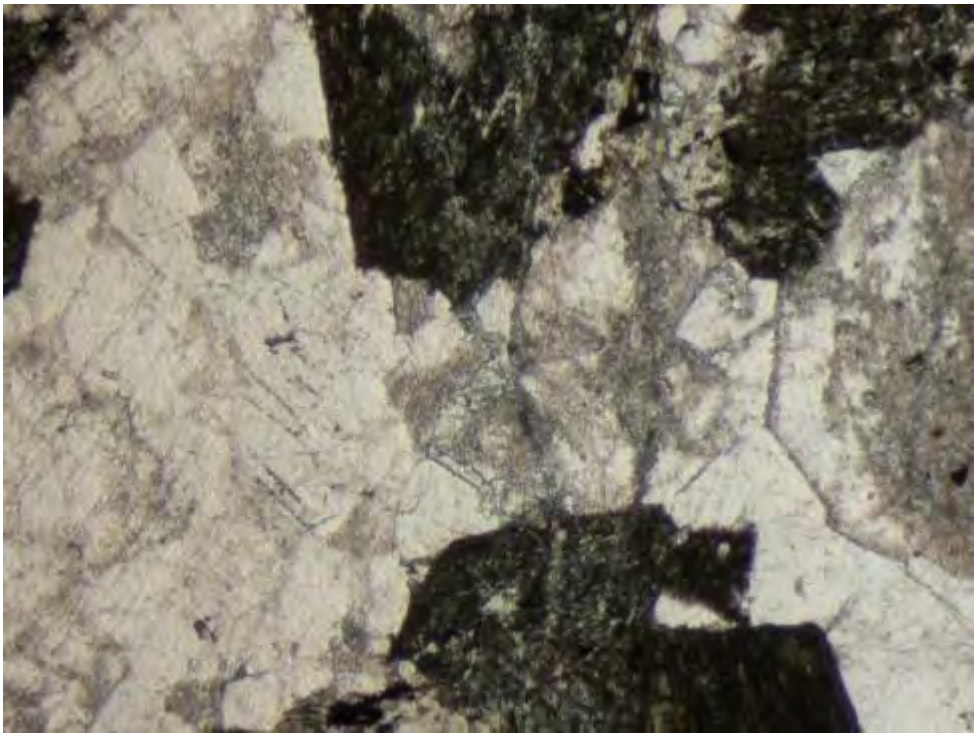
MINOR MINERALS

Mineral	%	Distribution & Characteristics*	Optical
Ilmenite	3	very fine-grained (< 20 μm), subhedral aggregates, occurs as replacement of former mafic phases	
Pyrrhotite	tr-1	fine-grained (< 0.4 mm), anhedral aggregates, associated with chalcopyrite, occurs as patches associated with carbonate	
Chalcopyrite	tr	fine to very fine-grained (< 0.13 mm), anhedral, associated with pyrrhotite	
Apatite	tr	fine to very fine-grained (< 0.1 mm), zoned, disseminated	high relief
Pyrite	r.	fine-grained (~0.15 mm), subhedral, enclosed by chalcopyrite, pyrrhotite and carbonate	
?Galena	r.	very fine-grained (~5-35 μm), anhedral, white in RL, poor polish, associated with chalcopyrite	weakly anisotropic
Sphalerite	r.	very fine-grained (~15 μm), anhedral, associated with chalcopyrite	pale brown

FRACTURE INFILL: 2%

Mineral	%	Distribution & Characteristics*	Optical
Carbonate	2	fine to very fine-grained (< 0.3 mm), anhedral aggregates, occurs as fracture infill	colourless
Quartz	tr	very fine-grained, occurs locally with quartz as fracture infill	
Chlorite	tr	very fine-grained, occurs with carbonate, ilmenite and locally quartz as fracture infill	
Ilmenite	tr	very fine-grained, occurs with chlorite (after amphibole?) as fracture infill	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



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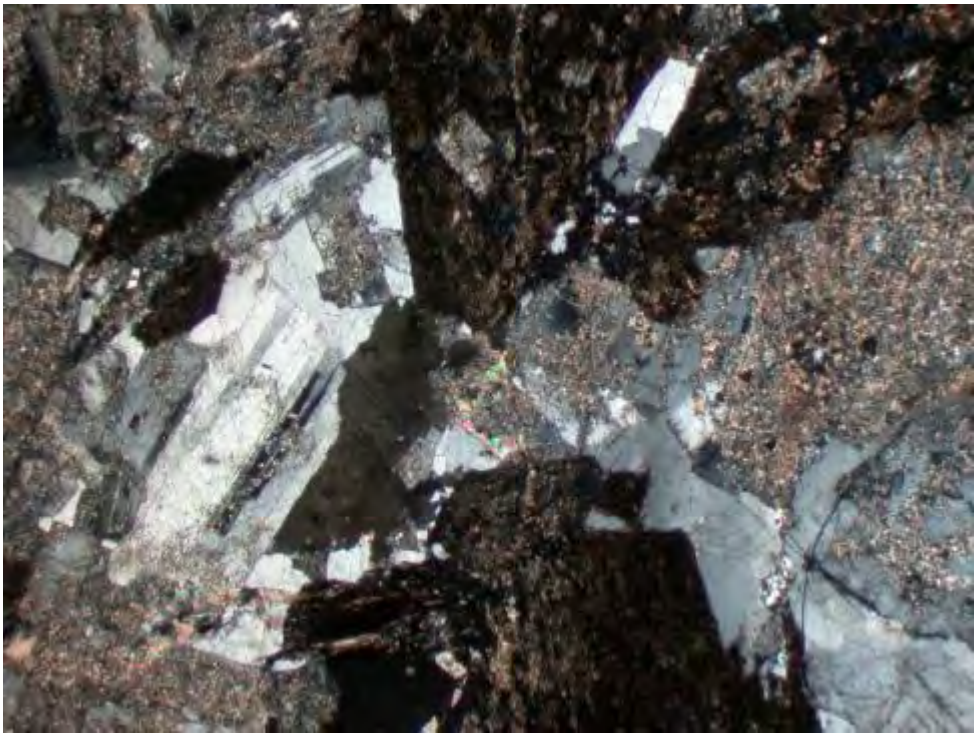
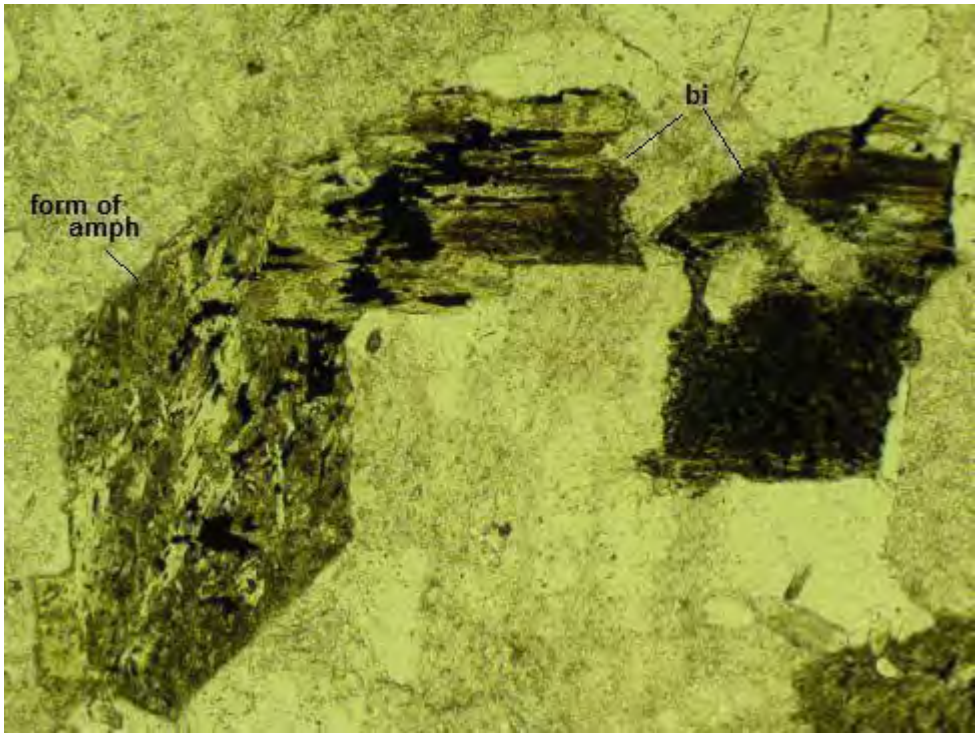
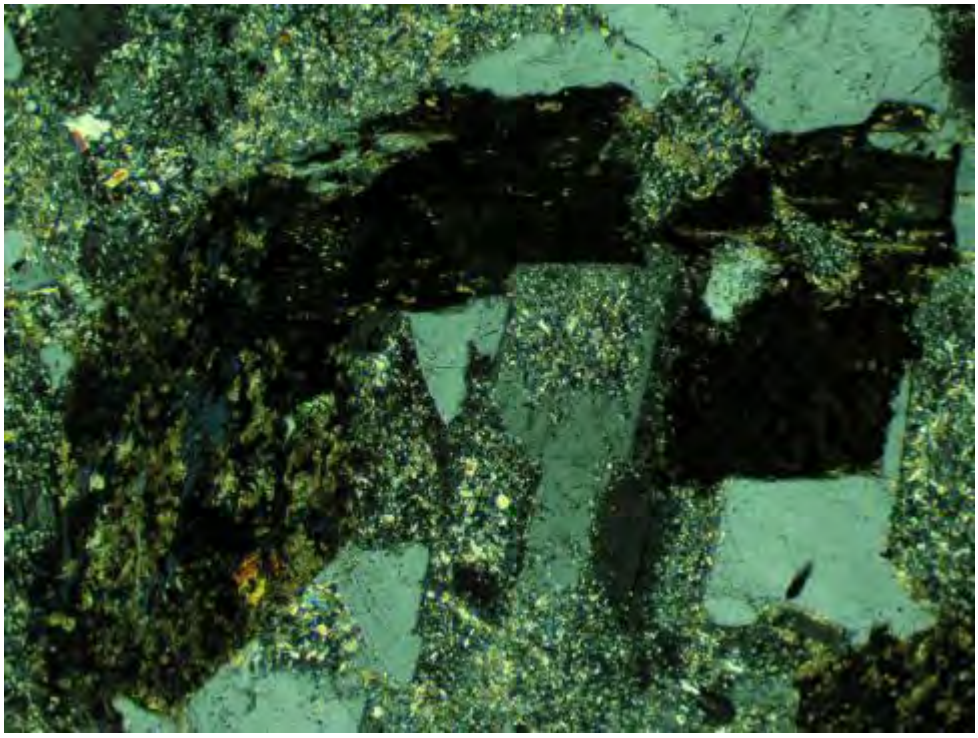


B

Sample: KCZ10-001C
A&B) Representative view of quartz diorite. Note plagioclase extensively replaced by patchy sericite-illite-carbonate and former amphibole replaced by carbonate, chlorite and ilmenite, relict biotite replaced by chlorite aggregate. A) PPL, B) XPL, FOV = ~4.5 mm.

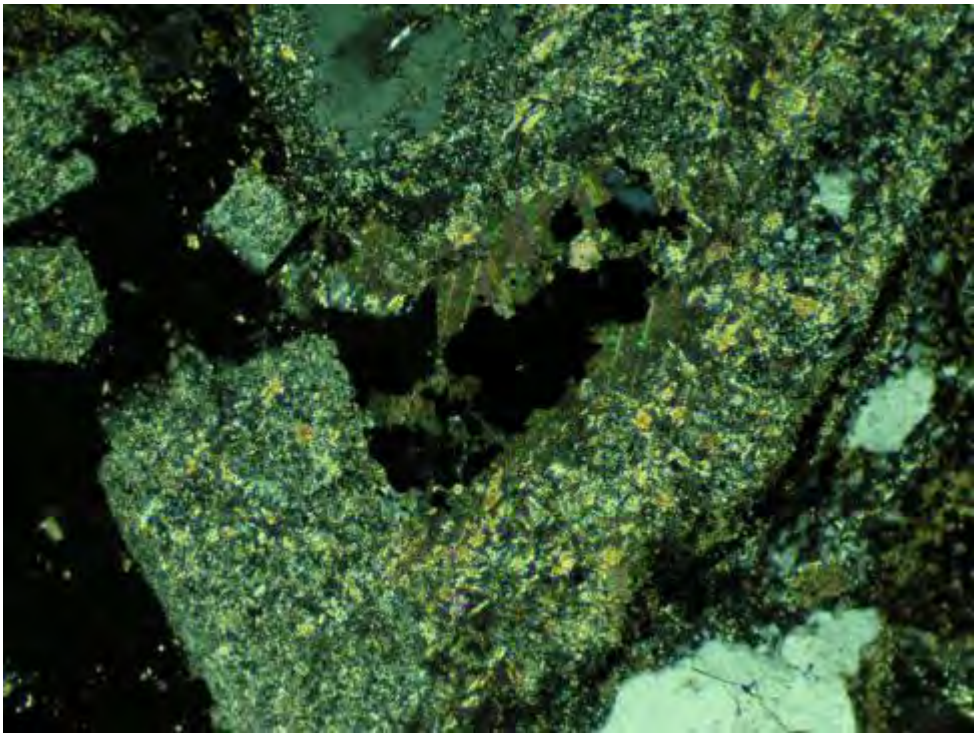


C

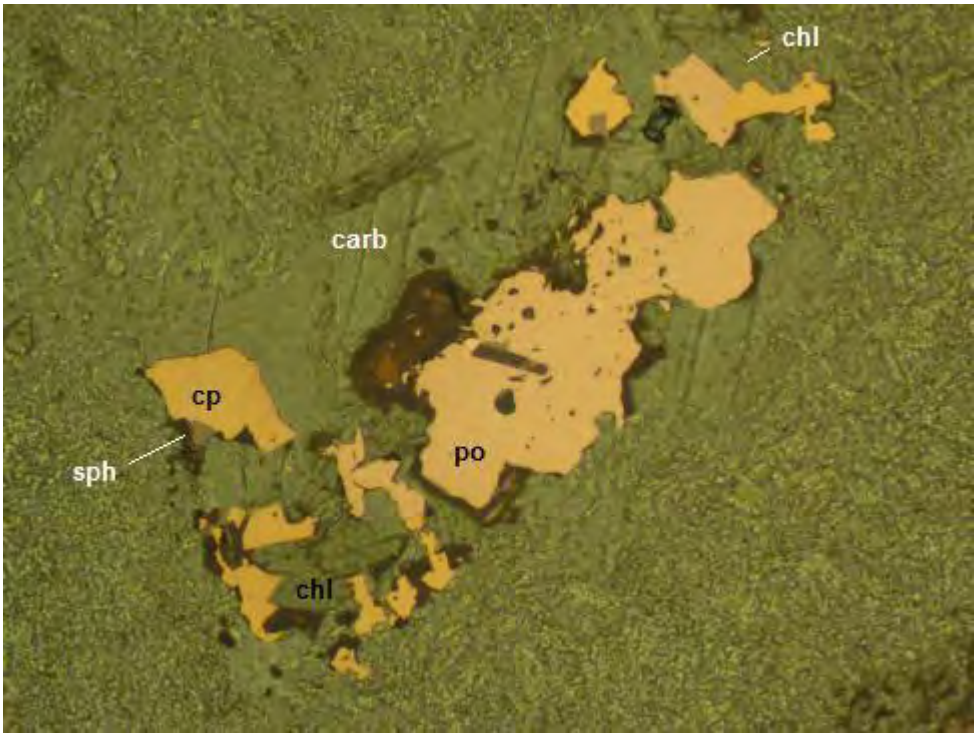


D

Sample: KCZ10-001C
C&D) Form of amphibole with pervasive replacement by carbonate-chlorite-opaques (ilmenite-pyrrhotite-chalcopyrite) and relict platy biotite replaced by chlorite-carbonate and opaques (ilmenite). C) PPL, D) XPL, FOV = ~ 1.3 mm.



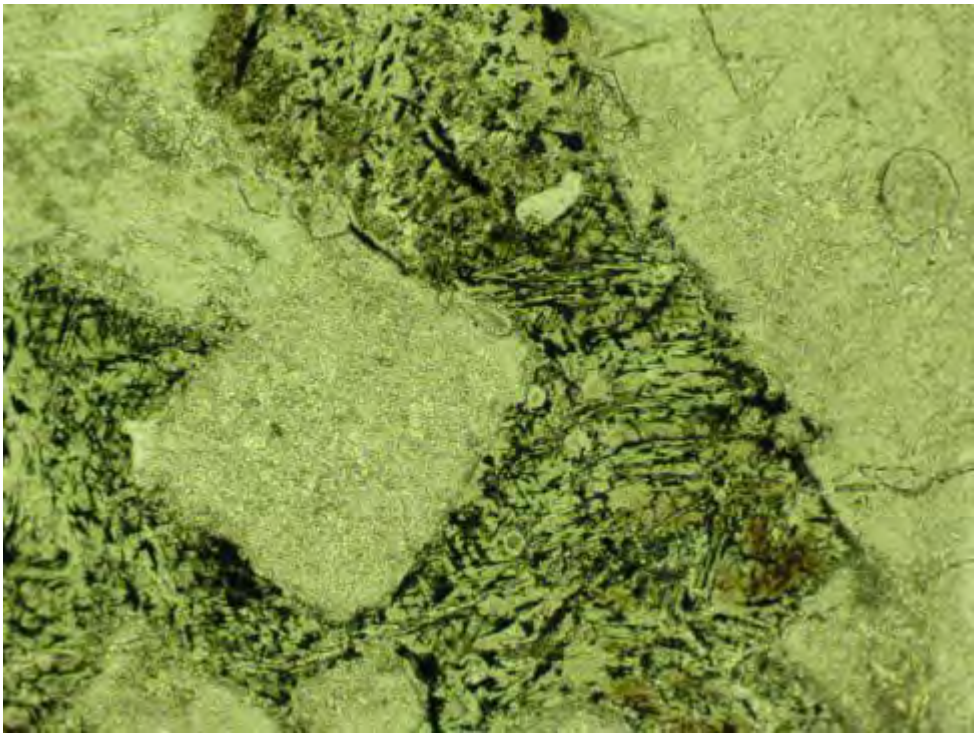
E



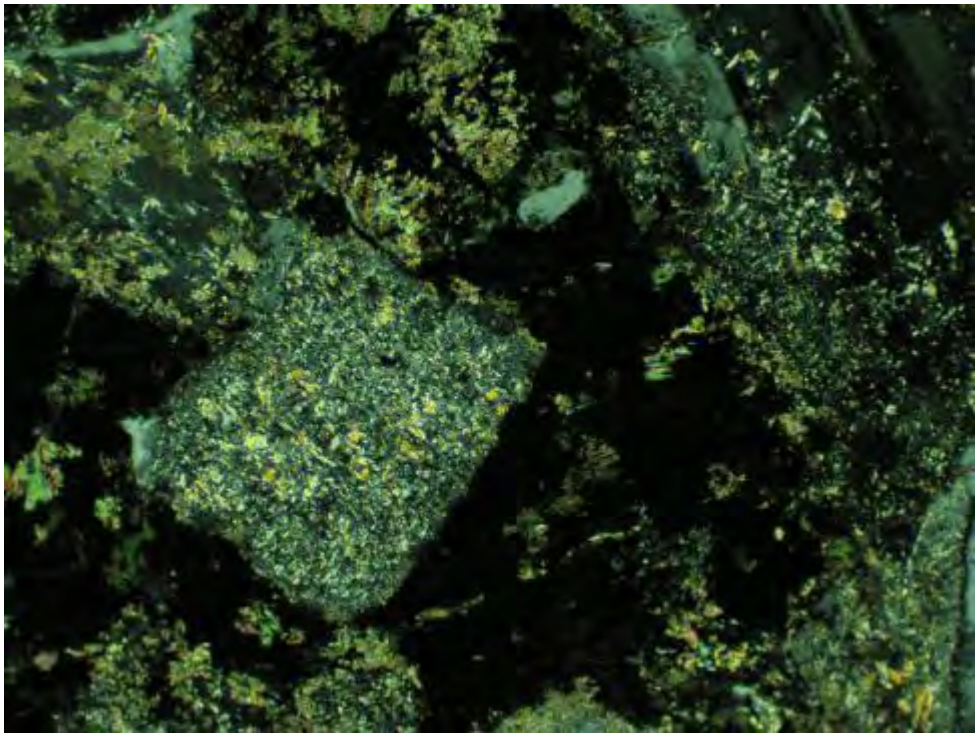
F

Sample: KCZ10-001C

E) Plagioclase phenocrysts partly replaced by sericite-illite and patchy carbonate aggregate. Note patchy opaque phases (sulphides) within altered plagioclase associated with carbonate and chlorite alteration. XPL, FOV = ~ 1.3 mm. F) Detailed view of patchy pyrrhotite-chalcopyrite-sphalerite-carbonate-chlorite aggregate from centre of photo E above. PPL+RL, FOV = ~ 0.7 mm.

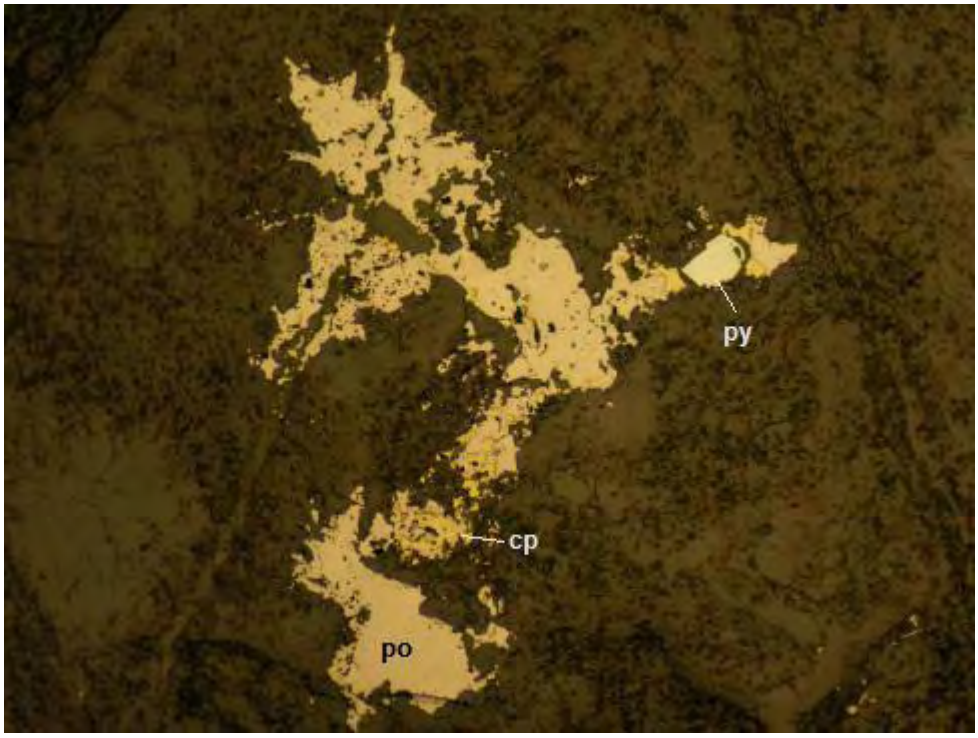


G

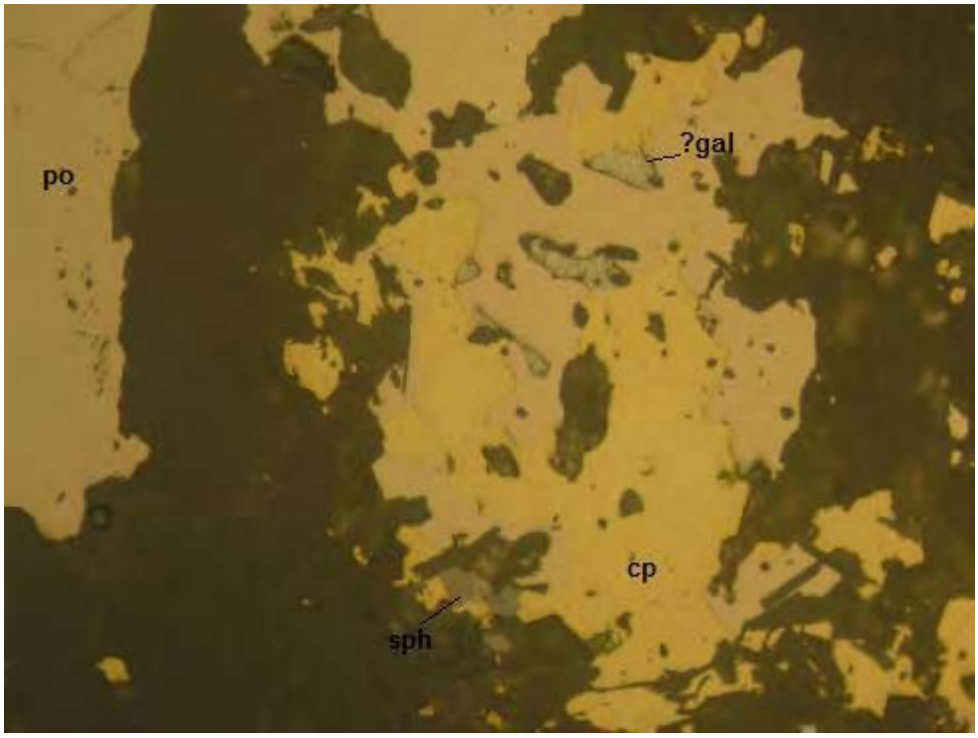


H

Sample: KCZ10-001C
G) Former mafic phases virtually completely replaced by chlorite, carbonate and ilmenite aggregate. Note ilmenite distribution highlights former amphibole cleavage traces. H) PPL, F) XPL, FOV = ~ 1.3 mm.



I



J

Sample: KCZ10-001C

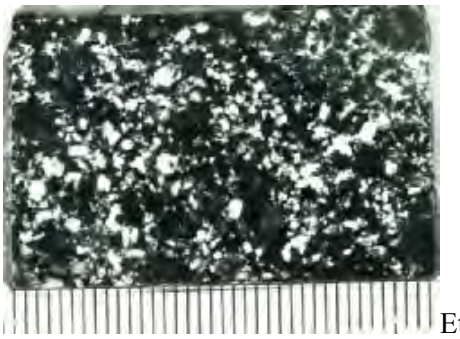
I) View of patchy pyrrhotite-chalcopyrite-pyrite aggregate. RL, FOV = ~2.6 mm, J) Detailed view of photo G. Note traces of ?galena and sphalerite associated with chalcopyrite and pyrrhotite. RL, FOV = ~ 0.3 mm.

Sample: KCZ10-001D **Offcut #: AX-4**


Core sample, scale in cm

LITHOLOGY:	Hornblende diorite
ALTERATION MINERALS:	Epidote-clinozoisite, chlorite, ?clay ± carbonate
ALTERATION:	Propylitic
MINERALIZATION:	Pyrite (pyrrhotite, chalcopyrite)
VEINLETS/FRACTURES:	Carbonate-quartz-chlorite±clinozoisite

Hand Sample Description:
Fine to medium-grained, seriate inequigranular melanocratic diorite comprising approximately 30% greenish-black amphibole crystals (<1-4 mm size) embedded in a groundmass of fine-grained (≤ 1 mm size) black amphibole and white altered plagioclase crystals. Sample includes mafic autolith (1.5 cm size). Traces of disseminated pyrite. No reaction to magnet. No reaction to cold, dilute HCl. Negative test for K-feldspar using etching by HF and sodium cobaltinitrate stain (no yellow stain, see photo below).


Etched and stained section offcut; scale in mm

Polished Thin Section Description:
This section is a selectively epidote, chlorite, ?clay-altered, typically fine to medium-grained (< 4 mm), seriate inequigranular hornblende diorite. The section includes part of a chlorite-epidote-carbonate-?clay-altered autolith (top right of offcut photo above) similar in composition to the host diorite. The diorite is composed of medium-grained, eu-subhedral hornblende laths (~30%) and fine to medium-grained, former subhedral ?plagioclase laths (~20%) embedded in a groundmass of fine to very fine-grained hornblende and plagioclase laths. The former ?plagioclase laths are pervasively replaced by aphantic epidote, patchy chlorite and clay. The medium-grained hornblende laths often enclose or are rimmed by clots of fine-grained hornblende. Locally medium-grained hornblende has ophitic texture with enclosed former fine to medium-grained laths (up to 1.6 mm) completely replaced by chlorite and locally by epidote. Minor pyrite occurs disseminated. Traces of pyrrhotite and chalcopyrite occur associated with epidote alteration. Minor microfractures are filled with quartz-carbonate-chlorite ± clinozoisite.

Sample: KCZ10-001D **Offcut #: AX-4**

HOST ROCK: 91%

Mineral	%	Distribution & Characteristics*	Optical
Hornblende	50	-medium-grained (1-4 mm), laths, locally rimmed by or encloses clots of fine-grained hornblende, locally ophitic texture with former fine to medium-grained laths (up to 1.6 mm) replaced by chlorite and locally by epidote -fine-grained (0.03-0.6 mm), eu-subhedral aggregates, occurs with plagioclase as matrix and as clots rimming and enclosed by medium-grained hornblende laths	pleochroic: greenish-yellow to green
Plagioclase	15	-fine to medium-grained (0.1 to 2 mm), ?laths, virtually completely replaced by aphanitic epidote, ?clay and chlorite -fine-grained (0.05-0.2 mm), eu-subhedral aggregates, occurs with hornblende as matrix	
Epidote-clinozoisite	10	-aphanitic aggregate, occurs with chlorite and ?clay as replacement of former ?plagioclase laths (0.1 to 2 mm) -partly replaces laths (ophitic texture) in medium-grained hornblende	brown
Chlorite	8	very fine-grained, partly replaces medium-grained hornblende, occurs as with clay as replacement of fine to medium-grained ?plagioclase laths, occurs as replacement of laths (ophitic texture) in medium-grained hornblende	
?Clay	5	aphanitic aggregate, occurs with epidote and chlorite as replacement of fine to medium-grained ?plagioclase laths	
Pyrite	1	fine to very fine-grained (< 0.45 mm), anhedral, disseminated	
Ilmenite	tr	fine to very fine-grained (< 0.1 mm), laths occur in clusters with clots of fine hornblende (?replacing former mafic phases)	
Pyrrhotite	tr	fine to very fine-grained (< 0.1 mm), anhedral, associated with epidote	
Chalcopyrite	tr	very fine-grained, anhedral, occurs locally as inclusions in pyrite and associated with epidote	

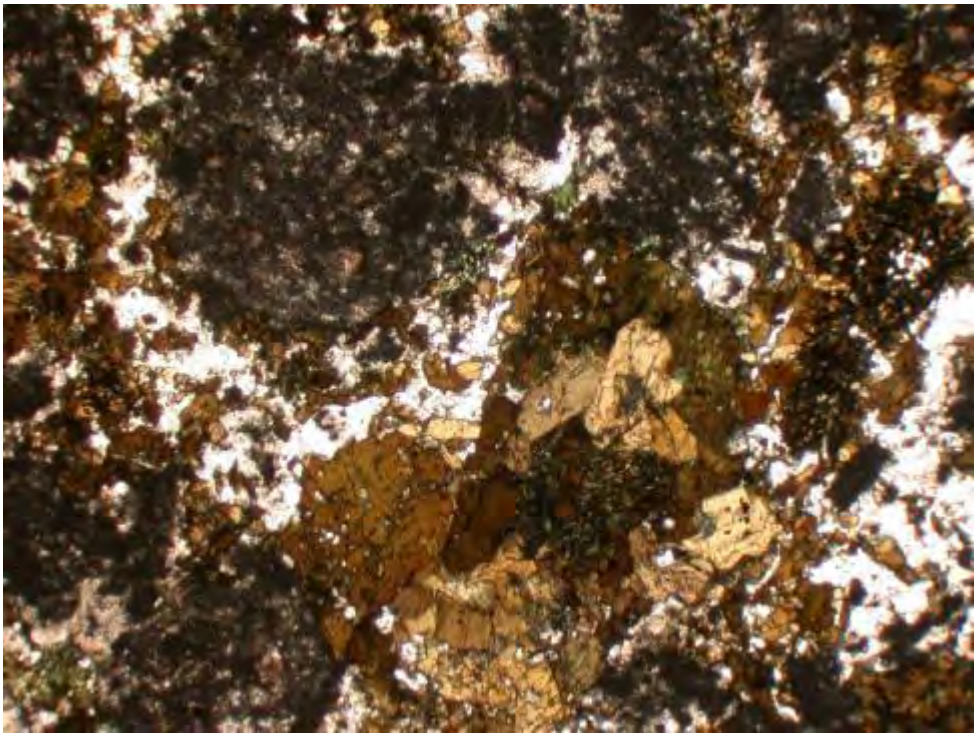
AUTOLITH: 8%

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	3	very fine-grained, replaces former mafic phases, ?plagioclase and former ophitic-textured, medium-grained hornblende	
?Plagioclase	2	fine-grained (0.1-0.7 mm), partly clay, chlorite, carbonate altered	
Epidote	1	aphanitic aggregates, occurs with chlorite, clay and patchy carbonate as replacement of former ?plagioclase laths (< 1 mm)	
Clay	1	aphanitic aggregates, occurs with chlorite, epidote and patchy carbonate as replacement of former ?plagioclase laths (< 1 mm)	
Carbonate	1	very fine-grained, patchy replacement	
Pyrite	tr	fine to very fine-grained (< 0.1 mm), anhedral, disseminated	

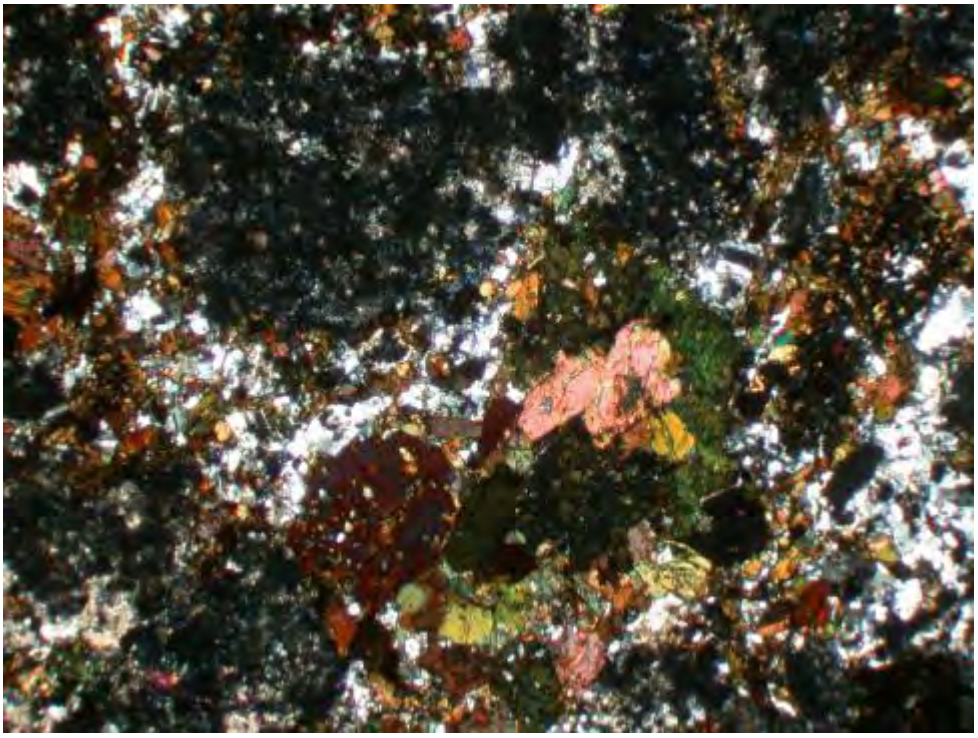
FRACTURE INFILL: 1%

Mineral	%	Distribution & Characteristics*	Optical
Chlorite	tr	very fine-grained, anhedral aggregates, occurs as fracture infill	colourless
Carbonate	tr	very fine-grained, anhedral aggregates, occurs as fracture infill	
Quartz	tr	very fine-grained, anhedral aggregates, fracture infill	
Clinozoisite	tr	very fine-grained, anhedral aggregates, locally as fracture infill	

*size ranges: coarse-grained > 5mm; medium-grained 1-5mm; fine-grained 0.05-1mm; very fine-grained <0.05mm



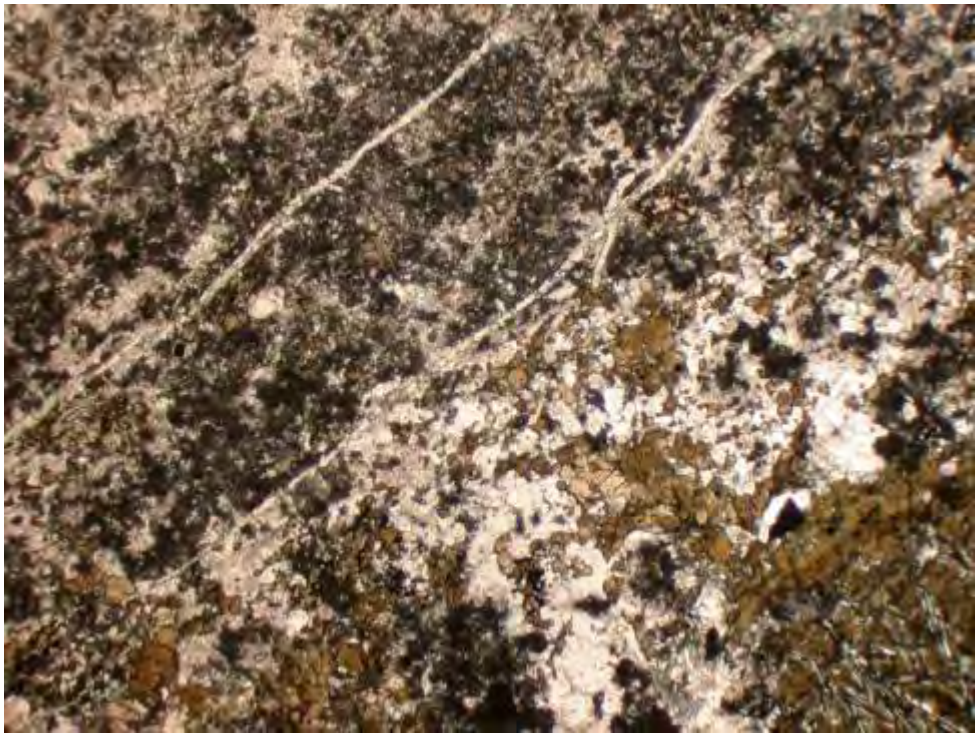
A



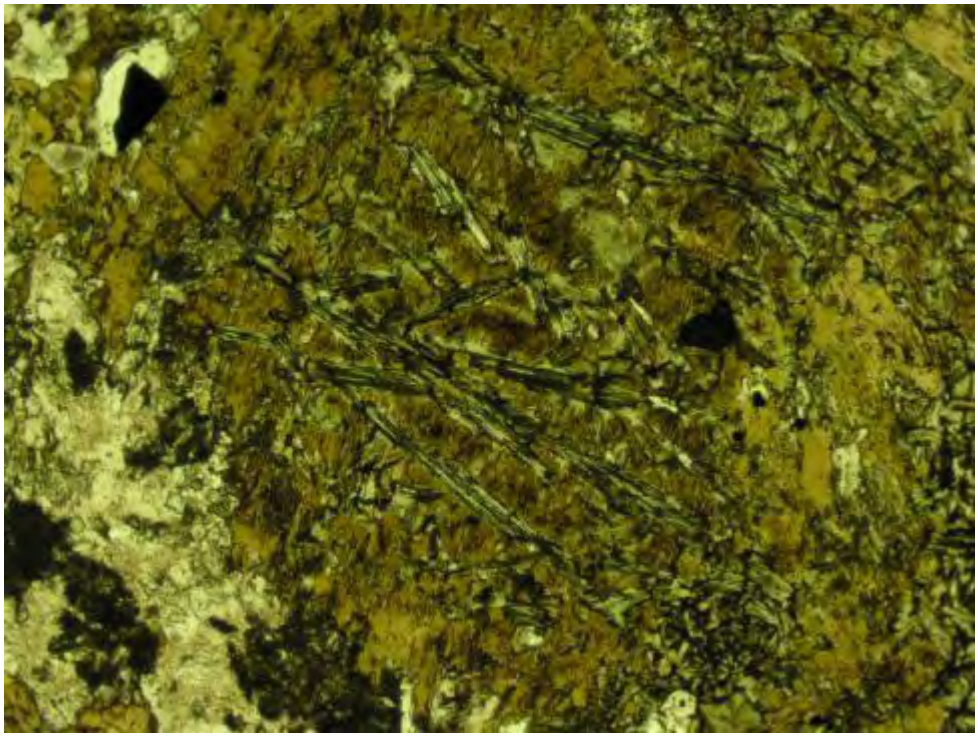
B

Sample: KCZ10-001D

A&B) Representative view of diorite with medium-grained hornblende and pervasively epidote-chlorite-clay altered former ?plagioclase in groundmass of fine to very fine grained hornblende and plagioclase. A) PPL, B) XPL, FOV = ~4.5 mm.



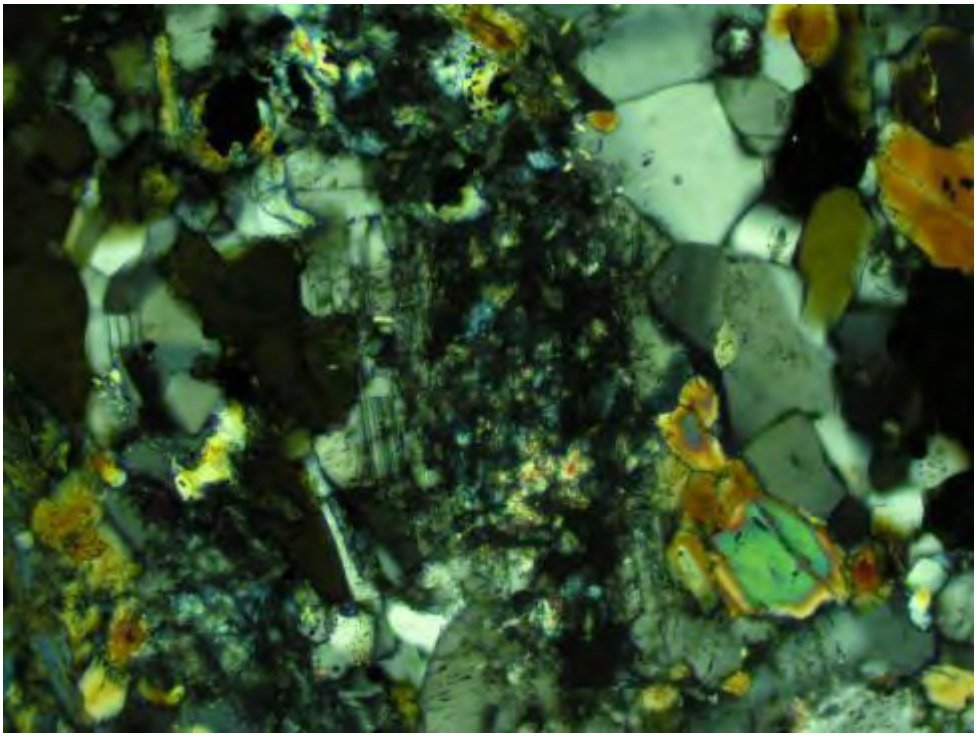
C



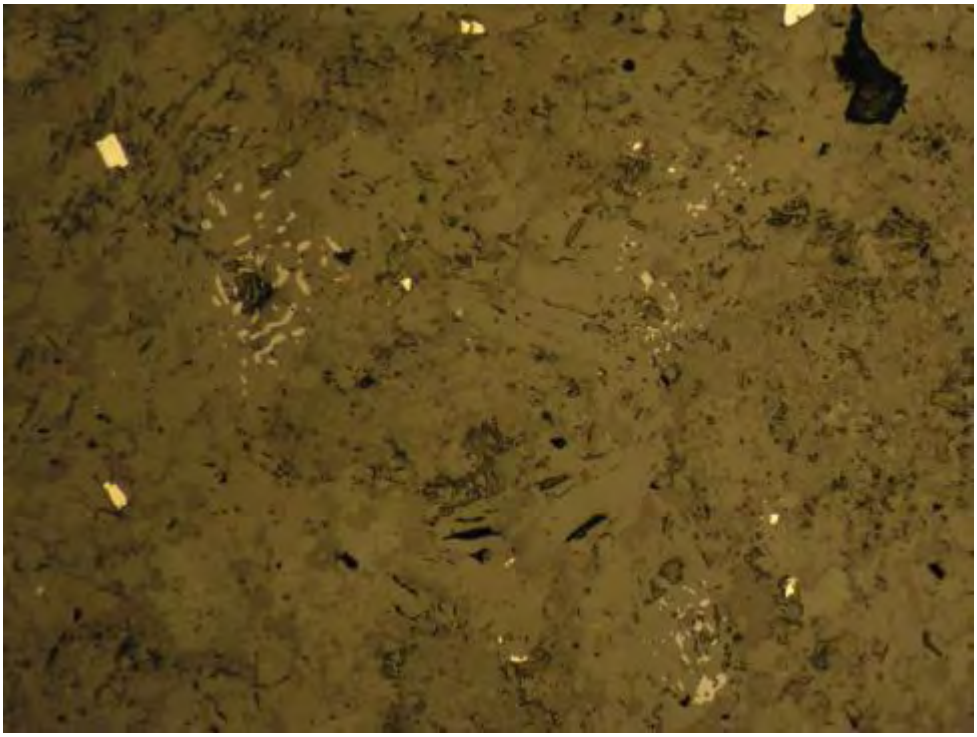
D

Sample: KCZ10-001D

C) Contact between autolith (upper left) and diorite (lower right). Note microfractures cutting section. PPL, FOV = ~ 4.5 mm. D) Detailed view of medium-grained hornblende lath with ophitic texture. Note laths replaced by chlorite. PPL, FOV = ~ 2.6 mm.



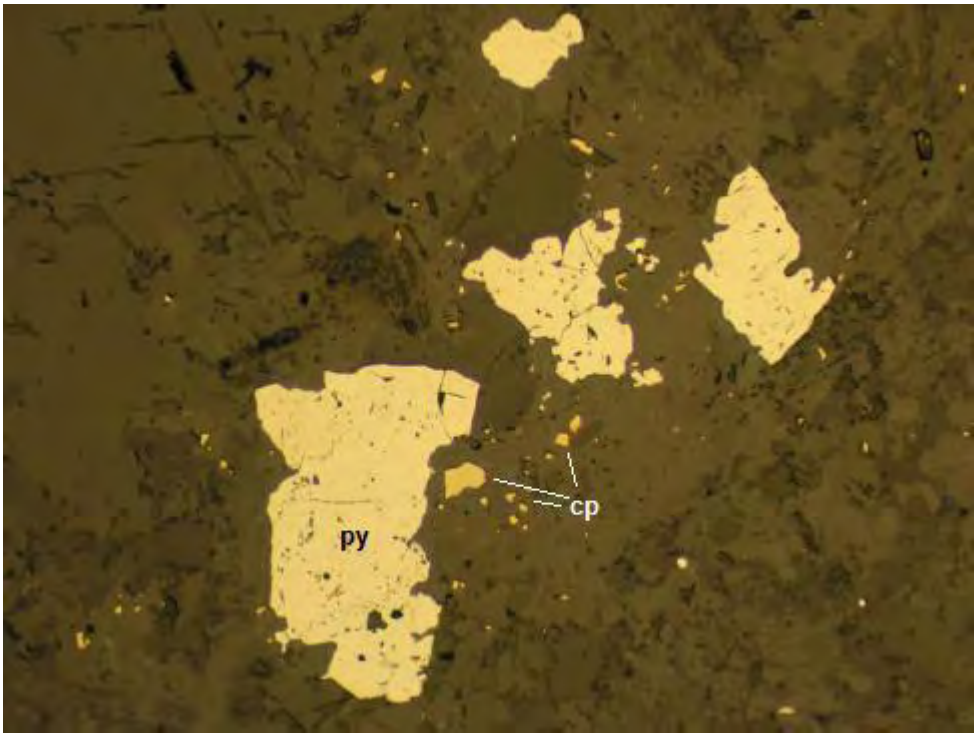
E



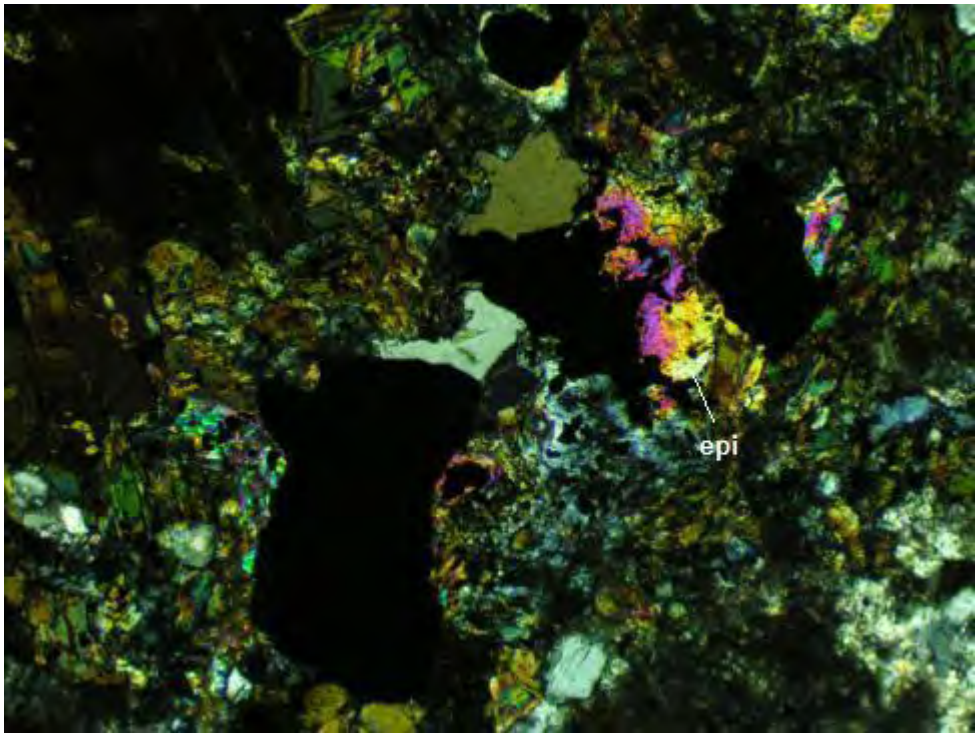
F

Sample: KCZ10-001D

E) Detailed view of relict ?plagioclase selectively replaced by aphanitic epidote-chlorite-clay aggregate. XPL, FOV = ~ 0.7 mm. F) Distribution of ilmenite as clusters and disseminated pyrite within the section. RL, FOV = ~2.6 mm.

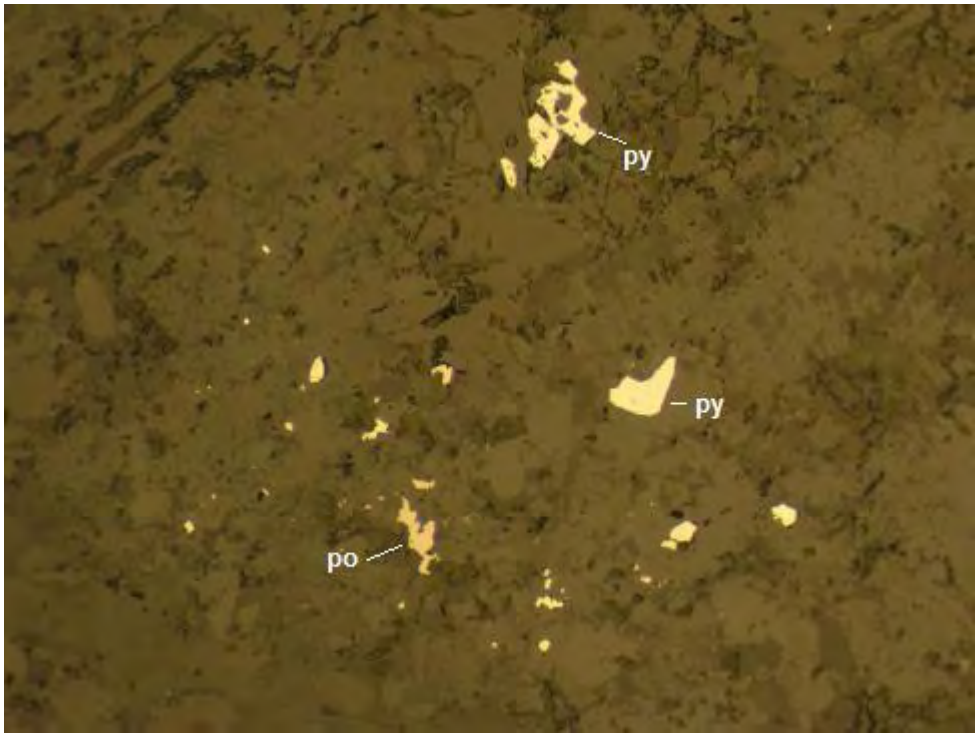


G



H

Sample: KCZ10-001D
G&H) Same view of patchy pyrite and chalcopyrite aggregate associated with epidote alteration. FOV = ~ 1.3 mm. G) RL. H) XPL.



Sample: KCZ10-001D
I) View of disseminated pyrite and pyrrhotite associated with epidote alteration. RL. FOV = ~1.3 mm.

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the City of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, # 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists and Mineralogical Association of Canada.

6. I have practiced my profession as a geologist for approximately 21 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 14 years as an independent consultant.

7. The petrographic data of this report was collected by me in November 2010.

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Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
Nov. 15, 2010