EQUITY | EXPLORATION CONSULTANTS LTD.

GeoSpark Logger ~ Drill Log

Project: KZK **Hole Number:** K16-384

Prospect:	Sebesi	Hole Type:	DD	Survey Type:	RTK DGPS	Logged By:	Oscar Nielsen
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Challenger_Survey	Date Logging Start:	7/7/2016
UTM Easting	415660.865	Core Size:	HQ3	Azimuth:	224.9	Date Logging Complete:	7/15/2016
UTM Northing:	6815386.44	Casing Pulled?:	Yes	Dip:	-65.1	Drill Company:	New Age
UTM Elev. (m):	1562.585	Casing Depth (m):	4.5	Length (m):	400	Drill Rig:	Zinex A5
Local Easting:		Stored?:	Yes	Claims Title		Drill Started:	7/6/2016
Local Northing:		Cemented?:	No	Core Storage Loc.:	KZK Camp	Drill Completed:	7/12/2016
Local Elev. (m):				Hole Completed?:	Abandoned	Purpose:	Exploration
Comments:						Parent Hole:	

Drill hole K16-384 was designed to test prospective stratigraphy on the south-east side of the Sunda fault and also to provide a deep conduit for downhole geophysics. Due to excessive azimuth deviation, the hole was cancelled at 400 m. Casing was left in and the hole was not cemented to allow for potential re-entry with a wedge. CASING SHOULD BE PULLED AND HOLE PLUGGED PRIOR TO LEAVING THIS SITE.
Mafic tuffs, mudstones, and conglomerates of the Wind Lake Formation are present from surface to 292.71 m. Two groups of samples were taken within the Wind Lake Formation. The first covers a fault zone with pyrite, chalcopyrite, galena, and a dark sooty mineral interpreted to be a sulphosalt. The second group of samples covers a zone of increased pyrrhotite and chalcopyrite content. The Kudz Ze Kayah Formation was encountered following a faulted contact from 292.71 m to 296.82 m. Immediately following the fault, a distinctive unit of crowded, quartz eye-feldspar bearing crystal tuff was encountered. If it is extensive, this unit may be a valuable marker horizon. Below this unit are the typical lapilli and crystal bearing tuffaceous sedimentary rocks of the Kudz Ze Kayah Formation. From 229-244 m there are three ~1m long cordierite-biotite bearing intervals of ashy volcaniclastic rocks though this likely represents a distal expression of the mineralizing event rather than the restricted, ore-proximal cordierite-'chlorite alteration.

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-65.1	223.5	1.4	224.9	TN14	Oscar Nielsen	7/7/2016		☑	
5	-64.83718	223.12905	1.4	224.53	Gyro	Steve Bultitude	7/12/2016		☑	100
10	-64.97346	222.62263	1.4	224.02	Gyro	Steve Bultitude	7/12/2016		☑	100
13.01	-65.3	202.1	22.1	224.2	ReflexEZS	New Age	7/7/2016	5854	☐	
15	-65.22539	222.82044	1.4	224.22	Gyro	Steve Bultitude	7/12/2016		☑	100
20	-65.228	222.92517	1.4	224.33	Gyro	Steve Bultitude	7/12/2016		☑	100
25	-65.13314	223.0579	1.4	224.46	Gyro	Steve Bultitude	7/12/2016		☑	100
30	-65.17623	223.06635	1.4	224.47	Gyro	Steve Bultitude	7/12/2016		☑	100
35	-65.27907	222.78502	1.4	224.19	Gyro	Steve Bultitude	7/12/2016		☑	100
40	-65.43521	222.27111	1.4	223.67	Gyro	Steve Bultitude	7/12/2016		☑	100
45	-65.49691	222.25305	1.4	223.65	Gyro	Steve Bultitude	7/12/2016		☑	100
46	-65.7	203.7	22.1	225.8	ReflexEZS	New Age	7/7/2016	5791	☐	
50	-65.57391	222.35028	1.4	223.75	Gyro	Steve Bultitude	7/12/2016		☑	100
55	-65.55682	222.6087	1.4	224.01	Gyro	Steve Bultitude	7/12/2016		☑	100
60	-65.53958	222.26409	1.4	223.66	Gyro	Steve Bultitude	7/12/2016		☑	100

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Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
65	-65.58054	222.10309	1.4	223.5	Gyro	Steve Bultitude	7/12/2016		☑	100
70	-65.72388	221.78307	1.4	223.18	Gyro	Steve Bultitude	7/12/2016		☑	100
73	-66.1	202.5	22.1	224.6	ReflexEZS	New Age	7/7/2016	5801	☐	
75	-65.88219	221.61381	1.4	223.01	Gyro	Steve Bultitude	7/12/2016		☑	100
80	-65.93995	221.25916	1.4	222.66	Gyro	Steve Bultitude	7/12/2016		☑	100
85	-66.00522	220.83803	1.4	222.24	Gyro	Steve Bultitude	7/12/2016		☑	100
90	-66.00622	220.16343	1.4	221.56	Gyro	Steve Bultitude	7/12/2016		☑	100
95	-66.02863	219.59841	1.4	221	Gyro	Steve Bultitude	7/12/2016		☑	100
98	-65.6	203.2	22.1	225.3	ReflexEZS	New Age	7/7/2016	5761	☐	
100	-66.04429	219.52824	1.4	220.93	Gyro	Steve Bultitude	7/12/2016		☑	100
105	-66.09686	219.50809	1.4	220.91	Gyro	Steve Bultitude	7/12/2016		☑	100
110	-65.85773	219.8793	1.4	221.28	Gyro	Steve Bultitude	7/12/2016		☑	100
113	-65.3	204.3	22.1	226.4	ReflexEZS	New Age	7/8/2016	5792	☐	
115	-65.67744	220.63684	1.4	222.04	Gyro	Steve Bultitude	7/12/2016		☑	100
120	-65.47423	221.36436	1.4	222.76	Gyro	Steve Bultitude	7/12/2016		☑	100
125	-65.39727	222.3967	1.4	223.8	Gyro	Steve Bultitude	7/12/2016		☑	100
130	-65.2859	223.28108	1.4	224.68	Gyro	Steve Bultitude	7/12/2016		☑	100
135	-65.21981	223.46552	1.4	224.87	Gyro	Steve Bultitude	7/12/2016		☑	100
139	-65	205	22.1	227.1	ReflexEZS	New Age	7/8/2016	5783	☐	
140	-65.19622	223.3528	1.4	224.75	Gyro	Steve Bultitude	7/12/2016		☑	100
145	-65.17907	223.29316	1.4	224.69	Gyro	Steve Bultitude	7/12/2016		☑	100
150	-65.17029	223.25626	1.4	224.66	Gyro	Steve Bultitude	7/12/2016		☑	100
155	-65.47226	222.69818	1.4	224.1	Gyro	Steve Bultitude	7/12/2016		☑	100
160	-65.8184	222.49141	1.4	223.89	Gyro	Steve Bultitude	7/12/2016		☑	100
160.01	-65.8	204.6	22.1	226.7	ReflexEZS	New Age	7/8/2016	5820	☐	
165	-66.07276	222.97447	1.4	224.37	Gyro	Steve Bultitude	7/12/2016		☑	100
170	-66.20183	223.37722	1.4	224.78	Gyro	Steve Bultitude	7/12/2016		☑	100
175	-66.25745	223.46798	1.4	224.87	Gyro	Steve Bultitude	7/12/2016		☑	100
180	-66.36596	223.2061	1.4	224.61	Gyro	Steve Bultitude	7/12/2016		☑	100
185	-66.50774	222.72931	1.4	224.13	Gyro	Steve Bultitude	7/12/2016		☑	100
190	-66.66293	222.35497	1.4	223.75	Gyro	Steve Bultitude	7/12/2016		☑	100
190.01	-66.9	203.1	22.1	225.2	ReflexEZS	New Age	7/8/2016	5796	☐	
195	-66.74735	221.90977	1.4	223.31	Gyro	Steve Bultitude	7/12/2016		☑	100
200	-66.79194	221.298	1.4	222.7	Gyro	Steve Bultitude	7/12/2016		☑	100

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Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
205	-66.82617	220.58635	1.4	221.99	Gyro	Steve Bultitude	7/12/2016		☑	100
210	-66.90532	219.9532	1.4	221.35	Gyro	Steve Bultitude	7/12/2016		☑	100
215	-66.936	218.938	1.4	220.34	Gyro	Steve Bultitude	7/12/2016		☑	100
217	-67	201	22.1	223.1	ReflexEZS	New Age	7/8/2016	5818	☐	
220	-66.99099	218.26414	1.4	219.66	Gyro	Steve Bultitude	7/12/2016		☑	100
225	-67.0568	217.58966	1.4	218.99	Gyro	Steve Bultitude	7/12/2016		☑	100
230	-67.23805	216.65796	1.4	218.06	Gyro	Steve Bultitude	7/12/2016		☑	100
235	-67.41613	215.67491	1.4	217.07	Gyro	Steve Bultitude	7/12/2016		☑	100
240	-67.43568	215.24373	1.4	216.64	Gyro	Steve Bultitude	7/12/2016		☑	100
244	-67.7	195.2	22.1	217.3	ReflexEZS	New Age	7/9/2016	5780	☐	
245	-67.41627	214.53347	1.4	215.93	Gyro	Steve Bultitude	7/12/2016		☑	100
250	-67.23609	213.73924	1.4	215.14	Gyro	Steve Bultitude	7/12/2016		☑	100
255	-67.12153	213.04028	1.4	214.44	Gyro	Steve Bultitude	7/12/2016		☑	100
260	-66.97654	212.39732	1.4	213.8	Gyro	Steve Bultitude	7/12/2016		☑	100
265	-66.77293	211.43754	1.4	212.84	Gyro	Steve Bultitude	7/12/2016		☑	100
270	-66.55234	210.77331	1.4	212.17	Gyro	Steve Bultitude	7/12/2016		☑	100
271	-66.9	190.4	22.1	212.5	ReflexEZS	New Age	7/9/2016	5716	☐	
275	-66.46953	210.32769	1.4	211.73	Gyro	Steve Bultitude	7/12/2016		☑	100
280	-66.43252	210.39194	1.4	211.79	Gyro	Steve Bultitude	7/12/2016		☑	100
285	-66.31804	209.62726	1.4	211.03	Gyro	Steve Bultitude	7/12/2016		☑	100
290	-65.94959	208.9932	1.4	210.39	Gyro	Steve Bultitude	7/12/2016		☑	100
295	-65.4758	208.00361	1.4	209.4	Gyro	Steve Bultitude	7/12/2016		☑	100
298	-65.7	188.3	22.1	210.4	ReflexEZS	New Age	7/9/2016	5762	☐	
300	-65.1513	207.36579	1.4	208.77	Gyro	Steve Bultitude	7/12/2016		☑	100
305	-65.07333	207.23064	1.4	208.63	Gyro	Steve Bultitude	7/12/2016		☑	100
310	-64.94642	207.25362	1.4	208.65	Gyro	Steve Bultitude	7/12/2016		☑	100
315	-64.44504	206.94677	1.4	208.35	Gyro	Steve Bultitude	7/12/2016		☑	100
320	-63.97116	206.45153	1.4	207.85	Gyro	Steve Bultitude	7/12/2016		☑	100
320.01	-64.1	187.1	22.1	209.2	ReflexEZS	New Age	7/9/2016	5783	☐	
325	-63.80537	206.13451	1.4	207.53	Gyro	Steve Bultitude	7/12/2016		☑	100
330	-63.90726	206.31848	1.4	207.72	Gyro	Steve Bultitude	7/12/2016		☑	100
335	-63.78889	206.15325	1.4	207.55	Gyro	Steve Bultitude	7/12/2016		☑	100
340	-63.6346	205.88742	1.4	207.29	Gyro	Steve Bultitude	7/12/2016		☑	100
345	-63.60389	205.80933	1.4	207.21	Gyro	Steve Bultitude	7/12/2016		☑	100

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
350	-63.62311	205.94143	1.4	207.34	Gyro	Steve Bultitude	7/12/2016		☑	100
352	-63.4	187.3	22.1	209.4	ReflexEZS	New Age	7/11/2016	5778	☐	
355	-63.41556	206.0453	1.4	207.45	Gyro	Steve Bultitude	7/12/2016		☑	100
360	-63.35171	206.22596	1.4	207.63	Gyro	Steve Bultitude	7/12/2016		☑	100
365	-63.17531	206.3402	1.4	207.74	Gyro	Steve Bultitude	7/12/2016		☑	100
370	-63.05158	206.54751	1.4	207.95	Gyro	Steve Bultitude	7/12/2016		☑	100
375	-62.93031	206.56368	1.4	207.96	Gyro	Steve Bultitude	7/12/2016		☑	100
379	-63.3	187.4	22.1	209.5	ReflexEZS	New Age	7/11/2016	5791	☐	
380	-63.01287	206.56026	1.4	207.96	Gyro	Steve Bultitude	7/12/2016		☑	100

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

0.00 3.30 OVBN Overburden

3.30 7.20 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey

3.3 - 7.2: Dark grey to black, banded unit consisting of interbedded fine grained carbonaceous mudstone and medium to light grey-green,coarse grined mafic tuff.

<<Alt: 3.3 - 16 Weak-Moderate Calcite>> Calcite bands in both mudstone and Mafic tuff

<<Alt: 3.3 - 73.22 Moderate Chlorite>> Green bands of chlorite within the Mafic tuff beds and units of the Wind Lake Fm.

<<Struc: 6.27 - 6.35 Weak Fault>>

7.20 12.61 MAFta Coarse grained to ash tuff grey-green

7.2 - 12.61: Medium grey-green, well foliated medium to fine grained chlorite bearing mafic (to intermediate) tuff. Less deformed areas have round carbonate bearing clasts (?) in a fine carbonate poor matrix.

<<Min: 7.2 - 12.61 0.5% Min: Pyrrhotite>> Fine pyrrhotite blebs less than 5mm long, present along the foliation planes

12.61 16.00 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

12.61 - 16: Thin, finely banded, dark grey-black and white carbonaceous mudstone.

<<Struc: 13.6 - 16 Moderate Fault>>

16.00 19.00 MAFta Coarse grained to ash tuff grey-green

16 - 19: Fine grey green, banded mafic ash tuff. There is a patch of light coloured fine, non-calcite bearing zone, with a lobate shape, suggesting a volcanic bomb?

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Alt: 18.48 - 19.27 Weak-Moderate Calcite>> Calcite bands in mafic tuff

<<Struc: 18.8 - 18.8 Weak-Moderate dominant foliation>>

19.00 37.65 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

19 - 37.65: Finely laminated, banded, carbonaceous mudstone, with sub 1 m interbeds of fine, grey-green ashy mafic volcanicalstic sediment, Bands show tight to isoclinal folding around an axis that defines the foliation of the rock.

<<Min: 31.1 - 48.98 0.5% Min: Pyrite>>

<<Min: 31.1 - 48.98 0.5% Min: Pyrrhotite>>

<<Alt: 23.69 - 58.7 Weak-Moderate Calcite>> Calcite bands in both mudstone and Mafic tuff

<<Vein: 19 - 19.27 100% Quartz>>

<<Struc: 28.57 - 29.13 Moderate Fault>>

37.65 40.39 MAFt Mafic Volcaniclastics grey-green

<<Struc: 37.85 - 41.68 Strong Fault>> Gougy

40.39 42.47 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey

<<Vein: 42.15 - 42.47 70% Quartz-Carbonate>>

42.47 46.64 MAFta Coarse grained to ash tuff

42.47 - 46.64: Sedimentary sequence dominated by fine grey green mafic tuffs with thin interbeds of dark grey mud-siltstone. Brown biotite growing alonng floiation planes

46.64 48.98 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey

46.64 - 48.98: Dark grey to black carbonaceous mudstone and bands of white carbonate material, with minor interbeds of grey green, fine grained mafic ash tuff.

<<Struc: 47.07 - 47.4 Moderate Fault>>

48.98 53.94 MAFta Coarse grained to ash tuff grey-green FG

48.98 - 53.94: Light grey green fine grained ashy mafic to intermediate tuff.

<<Min: 48.98 - 52 1% Min: Pyrite>>

<<Min: 48.98 - 52 1% Min: Pyrrhotite>>

<<Min: 50.37 - 50.54 0.01% Min: Chalcopyrite>> A clot of Py-Po-Cp within a quartz-carbonate vein

<<Min: 52 - 73.22 0.5% Min: Pyrite>>

<<Min: 52 - 73.22 0.5% Min: Pyrrhotite>>

<<Vein: 52.59 - 53.06 50% Quartz-Carbonate>>

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Struc: 51.05 - 51.05 Weak-Moderate dominant foliation>>

53.94 70.15 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

53.94 - 70.15: Dark grey-black and white, foliated fine grained carbonaceous mudstone, with minor interbeds 10-50cm of grey-green fine grained mafic ash tuff.

<<Min: 55.1 - 55.2 2% Min: Galena>> Fine well formed galena in a light coloured carbonate band within MDS

<<Alt: 53.97 - 73.22 Weak Biotite>> Patchy biotite growth on along foliation planes

<<Alt: 58.7 - 70.15 Trace Calcite>> Rare calcite bands in MDS and MAFt

<<Vein: 55.38 - 56.54 90% Quartz-Carbonate>> Quartz dominant with ~5% carbonate

<<Vein: 59.11 - 59.59 50% Quartz-Carbonate>>

<<Vein: 63.18 - 63.26 100% Quartz-Carbonate>>

<<Struc: 55.6 - 56.5 Weak-Moderate Fault>>

<<Struc: 62.58 - 62.83 Weak-Moderate Fault>>

<<Struc: 63.9 - 63.9 Weak-Moderate dominant foliation>> Perpendicular to core axis

70.15 73.22 MAFt Mafic Volcaniclastics grey-green

70.15 - 73.22: Light grey green fine grained, well banded, calcitic mafic tuff with patchy zones of coarse grained euhedral black biotite porphyroblasts.

<<Alt: 70.15 - 88.05 Weak Calcite>> Calcite bands in MAFt

73.22 79.92 FLZ Fault Zone grey

73.22 - 79.92: Grey crushed rock, gouge, and rock fragments.

<<Struc: 73.22 - 79.92 Strong Fault>> Gougy

79.92 82.51 MAFt Mafic Volcaniclastics grey-green FG

79.92 - 82.51: Light grey green fine grained ashy mafic to intermediate tuff.

<<Min: 79.92 - 82.51 0.5% Min: Pyrite>>

<<Struc: 81.3 - 82.05 Moderate Fault>> crushed rock

From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
82.51	83.35	0.84	B00291951	0.005	0.7	0.02	0.02	0.01

82.51 84.85 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey

82.51 - 84.85: Dark grey and white, finely banded, strongly faulted carbonaceous mudstone

<<Min: 82.51 - 84.85 0.5% Min: Sulphosalts>> Dark, sooty mineralization associated with the galena.

<<Min: 82.51 - 84.85 2% Min: Pyrite>>

<<Min: 82.51 - 84.85 1% Min: Galena>>

From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
83.35	84.85	1.50	B00291952	-0.005	2.8	-0.01	0.26	0.14

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
		<<Min: 82.51 - 84.85 0.5% Min: Chalcopyrite>>									
		<<Struc: 84.3 - 84.85 Moderate Fault>> Minor gouge, crushed rock									
84.85	**85.76**	**MAFt Mafic Volcaniclastics grey-green FG**	84.85	85.76	0.91	B00291953	-0.005	0.4	0.01	-0.01	0.01
		<<Min: 84.85 - 87 1% Min: Pyrite>>									
		<<Min: 84.85 - 87 0.5% Min: Chalcopyrite>>									
85.76	**88.05**	**MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG**	86.00	87.09	1.09	B00291954	-0.005	0.5	-0.01	-0.01	0.02
		85.76 - 88.05: Dark grey and white, finely banded, moderately faulted carbonaceous mudstone									
		<<Vein: 87.09 - 87.85 100% Quartz-Carbonate>> Some clast of wallrock eithin the vein have been altered to brown biotite									
		<<Struc: 87.85 - 88.05 Strong Fault>> Gougy fault									
88.05	**92.85**	**MAFta Coarse grained to ash tuff grey-green FG**									
		88.05 - 92.85: Medium grey green fine grained ash tuff, strong carbonate									
		<<Alt: 88.05 - 97.05 Moderate Calcite>> Pervasive carbonate alteration throughout the MAFt unit, especially strong in the bands of cacite.									
		<<Struc: 92.33 - 92.57 Moderate-Strong Fault>> Gougy w/ crushed rock									
92.85	**108.50**	**FLZ Fault Zone buff**									
		92.85 - 108.5: Well developed, gougy fault zone. Some gouge zones have developed a foiation. Some parts have been healed with quartz.									
		<<Vein: 98.1 - 106.67 85% Quartz-Carbonate>> Quartz vein running up and healing a fault/ being faulted									
		<<Struc: 92.85 - 94.79 Strong Fault>> Gouge rich fault , possible consolidated gouge zone (or very alteered wall rock) in the middle									
		<<Struc: 95.28 - 96.4 Moderate-Strong Fault>> Gouge and crushed rock									
		<<Struc: 96.5 - 108.5 Strong Fault>> Gougy zones, qtz healed zones, zones of crushed rock									
108.50	**116.71**	**MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG**									
		108.5 - 116.71: Strongly carbonaceous, dark grey to black,finely laminated mudstone.									
		<<Min: 108.5 - 127.04 2% Min: Pyrite>>									
		<<Alt: 110.25 - 116.71 Weak Calcite>> Fine calcite bands in the mudstone									
		<<Struc: 110.6 - 112 Weak Fault>> Zone of crushed rock in MDS (weak)									
		<<Struc: 114 - 114.83 Weak Fault>> Zone of crushed rock in MDS (weak)									
		<<Struc: 114.83 - 114.83 Moderate-Strong dominant foliation>>									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

116.71 117.82 MAFt Mafic Volcaniclastics beige FMG

116.71 - 117.82: Light grey green with orange oxide zones, lower 30 cm has a strong crystal component as well as possible lithic fragments

<<Alt: 116.71 - 117.82 Trace Calcite>>

<<Struc: 116.71 - 117.01 Trace Fault>> Zone of crushed rock

117.82 127.04 MDS Carbonaceous Mudstone & Tuffaceous Mudstone black FG

117.82 - 127.04: Dark grey to black with white streaks/layers, fine mudstone with small ashy MAFt

<<Alt: 117.82 - 127.12 Weak Calcite>> Fine calcite bands somewhat rarely in the MDS

<<Struc: 118 - 119.05 Trace Fault>> Zone of weakly crushed mudstone

<<Struc: 121.95 - 122.3 Weak Fault>> Moderately crushed rock and minor gouge

<<Struc: 122.65 - 122.92 Weak Fault>> Zone of strongly crushed rock

<<Struc: 124.3 - 124.7 Trace Fault>> Weakly crushed MDS

127.04 128.00 MAFt Mafic Volcaniclastics grey-green FG

127.04 - 128: Fine ashy chlorite altered mafic tuff

<<Alt: 127.12 - 154.31 Moderate-Strong Calcite>> Calcite both pervasive and especially strong in calcite bands

<<Struc: 127.66 - 127.87 Moderate Fault>> Gougy fault zone

128.00 129.85 MAFt Mafic Volcaniclastics grey-green FG

128 - 129.85: Fine mafic tuff with well defined calcitic banding.

<<Struc: 128.17 - 128.37 Weak-Moderate Fault>> Gougy fault zone

129.85 147.76 MAFt Mafic Volcaniclastics grey-green

129.85 - 147.76: Well banded grey-green-brown (and white) epiclastic rock containing pelitic bands, evidenced by strong biotite bands, surrounding streched and flattened lithic fragments, including clasts that appear to be derived from the KZK formation (feldspar phyric rhyolite, fine mafic rock), some sort of debris flow?

<<Struc: 132.2 - 132.22 Weak Fault>> Coarse-fine crushed rock

<<Struc: 139.51 - 142 Moderate Fault>> Multiple zones of gouge and crushed rock

<<Struc: 145.36 - 145.85 Moderate Fault>> Gouge and crushed rock

147.76 151.70 FLZ Fault Zone light grey

147.76 - 151.7: Strongly crushed rock and gouge. Some sections are consolidated into a coherent fault breccia

<<Struc: 147.76 - 151.7 Strong Fault>> Strong zone of gouge, with a minor component of crushed rock

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

151.70 153.56 MAFt Mafic Volcaniclastics grey-green

151.7 - 153.56: Biotite porphyroblastic fine grey green ash tuff.

<<Alt: 151.7 - 153.23 Moderate-Strong Biotite>> Coarse grained, euhedral, equigranular black biotite porphyroblasts, with no relationship to the foiation.

<<Alt: 153.23 - 154.34 Moderate Biotite>> Brown biotite porphyroblasts growing alon the foliation planes

153.56 154.34 MAFt Mafic Volcaniclastics grey-green FG

153.56 - 154.34: Fine grained grey green mafic tuff, abundant carbonate and biotite alteration lends a mottled appearance

<<Alt: 154.31 - 160.46 Weak Calcite>> Calcite bands in MDS, and strongly in rare 'MAFt interbeds

154.34 160.46 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

154.34 - 160.46: Fine grained, finely laminated dark grey and white mudstone. Rare black patchy biotite porphyroblasts.

<<Alt: 154.34 - 174.64 Weak-Moderate Biotite>> Black coarse grained euhedral biotite porphyroblasts in patches and bandsthroughought the MAFt and the MDS

<<Vein: 158.32 - 160.51 5% Quartz-Carbonate>> Approximately 50/50 Qz vs Carb

<<Struc: 154.7 - 155.92 Weak-Moderate Fault>> Zone of broken/crushed MDS with minor gouge

<<Struc: 157.48 - 157.54 Weak Fault>> Gougy fault zone

160.46 174.64 MAFt Mafic Volcaniclastics dark grey FG

160.46 - 174.64: Fine grained grey green-black mafic ash tuff with bands and patches of black coarse grained biotite porphyroblasts (pelitic input?)

<<Min: 166.28 - 174.64 1% Min: Pyrite>>

<<Min: 167.59 - 168.28 5% Min: Pyrite>>

<<Alt: 160.46 - 181.66 Weak-Moderate Calcite>> Calcite bands in MAFt and calcite weakly disseminated in the ashy beds

<<Alt: 167.49 - 168.28 Moderate Albite>> A zone of white, bleachd rock, spatially coincident with a zone of pyrite-chlorite veining.

<<Vein: 164.7 - 165.36 40% Quartz-Carbonate>> Brown biotite growing on the margins

<<Vein: 167.49 - 168.28 5% Pyrite>> spatially coincident with a bleached alteration zone

<<Vein: 171.48 - 171.65 100% Quartz-Carbonate>>

<<Struc: 160.58 - 160.94 Moderate Fault>> Three bands of gouge 1 cm true thickness

<<Struc: 166.3 - 166.3 Weak dominant foliation>>

<<Struc: 166.5 - 166.61 Weak Fault>> Small zone of crushed rock and minor gouge

<<Struc: 171.63 - 171.73 Weak Fault>> Small zone of crushed rock and minor gouge

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

174.64 175.96 FLZ Fault Zone medium grey

174.64 - 175.96: Strongly crushed rock and gouge.

<<Struc: 174.64 - 176.96 Moderate-Strong Fault>> Zone of strongly crushed rock and gouge

175.96 181.66 MAFt Mafic Volcaniclastics green FG

175.96 - 181.66: Grey-green fine grained ashy mafic tuff with bands and clots and streaks of coarse equigranular porphyroblastic biotite.

<<Min: 175.96 - 181.66 1% Min: Pyrite>>

<<Min: 175.96 - 181.66 0.5% Min: Pyrrhotite>>

<<Alt: 175.96 - 186 Weak Biotite>> Black coarse grained euhedral biotite porphyroblasts in patches and bandsthroughought the MAFt and the MDS

<<Vein: 176.36 - 177.08 20% Quartz-Carbonate>> Some veins are not through-going,possibly boudinaged?

<<Vein: 179.98 - 180.36 100% Quartz-Carbonate>> Wall rock clasts and margins have been completely altered to biotite

<<Struc: 180.36 - 180.58 Moderate Fault>> Zone of gouge

<<Struc: 181 - 181 Moderate dominant foliation>>

181.66 182.85 MDS Carbonaceous Mudstone & Tuffaceous Mudstone black FG

181.66 - 182.85: Fine grained black and white carbonaceous mudstone with bands of white carbonate material

<<Min: 181.66 - 182.85 2% Min: Pyrite>>

<<Min: 181.66 - 182.85 0.5% Min: Pyrrhotite>>

<<Alt: 181.66 - 182.85 Weak Calcite>> Fine bands of calcite in the MDS

182.85 193.57 MAFt Mafic Volcaniclastics grey-green FG

182.85 - 193.57: Fine grained grey green-black mafic ash tuff with bands and patches of black coarse grained biotite porphyroblasts (pelitic input?)

<<Alt: 182.85 - 183.57 Trace Calcite>> Rare calcite zones within quartz veins and MAFt

<<Alt: 183.57 - 197.57 Weak-Moderate Calcite>> Patchy zones of calcite within the BI altered mafic tuff/volcaniclastic

<<Alt: 187.57 - 194.71 Moderate-Strong Biotite>> Patchy aggregates of euhedral black biotite, with no preferential orientation

<<Vein: 183.49 - 183.61 100% Quartz-Carbonate>>

<<Vein: 184.3 - 186.52 50% Quartz-Carbonate>> Walllrock clasts altered to biotite,is Galena

<<Struc: 186.34 - 186.59 Weak Fault>> Zone of crushed rock

<<Struc: 191.4 - 191.6 Weak Fault>> Broken rock and minor gouge

From (m)	To (m)	Rocktype & Description			From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
193.57	**203.19**	**MAFt** **Mafic Volcaniclastics**	**grey-green**	**FG**	202.13	203.19	1.06	B00291955	0.01	1.2	0.04	-0.01	0.45

193.57 - 203.19: Fine grained grey green mafic ash tuff

<<Min: 196.49 - 202.13 0.5% Min: Pyrite>>

<<Min: 196.49 - 202.13 0.01% Min: Pyrrhotite>>

<<Min: 202.13 - 207.69 2% Min: Pyrrhotite>>

<<Min: 202.13 - 207.69 0.5% Min: Chalcopyrite>>

<<Alt: 196.49 - 197.1 Moderate Biotite>> Patchy aggregates of euhedral black biotite, with no preferential orientation

<<Alt: 197.1 - 207.69 Weak Biotite>> Patchy aggregates of euhedral black biotite, with no preferential orientation

<<Alt: 197.57 - 210.43 Weak Calcite>> Thin calcite bands within the MDS and MAFt

<<Vein: 193.77 - 196 65% Quartz-Carbonate>> Wall rock altered to black biotite

<<Struc: 194.71 - 196 Moderate Fault>> Predominantly rubbly rock, with gouge and a warped foliation

<<Struc: 196 - 196.49 Strong Fault>> Strong gouge development

<<Struc: 199.2 - 200.04 Moderate-Strong Fault>> Upper 30 cm contain strong gouge, lower portion is predominantly broken/rubbly rock

<<Struc: 201.43 - 201.46 Moderate Fault>> Small gougy fault, following foliation

<<Struc: 201.5 - 201.5 Weak-Moderate dominant foliation>> Moderate foliation defined by chloritic parting planes and carbonate bands

203.19	**207.94**	**MDS** **Carbonaceous Mudstone & Tuffaceous Mudstone**	**dark grey**	**FG**	203.19	204.69	1.50	B00291956	-0.005	1.1	0.03	-0.01	0.15

203.19 - 207.94: Fine grained finely laminated black-grey and white mudstone with zones of chaotic foliation (bedding?)

<<Min: 204.69 - 206.19 0.01% Min: Galena>>

					204.69	206.19	1.50	B00291957	-0.005	1.5	0.03	0.02	0.26

<<Min: 204.69 - 207.69 0.5% Min: Pyrite>>

					206.19	207.69	1.50	B00291958	-0.005	0.5	-0.01	-0.01	0.02

207.94	**210.43**	**MAFta** **Coarse grained to ash tuff**	**grey-green**	**FG**

207.94 - 210.43: Fine grey green ash tuff with weak carbonate banding

210.43	**255.89**	**MDS** **Carbonaceous Mudstone & Tuffaceous Mudstone**	**dark grey**	**FG**

210.43 - 255.89: Fine grained black and white carbonaceous mudstone with bands of white carbonate material, minor thin beds (?) of fine grey-green MAFt, less than 50 cm

<<Min: 214 - 214.85 0.5% Min: Pyrrhotite>> Mineralization associated with patches of carbonate alteration

<<Min: 214 - 214.85 0.01% Min: Chalcopyrite>> Mineralization associated with patches of carbonate alteration

<<Min: 214.85 - 278.62 0.5% Min: Pyrrhotite>> Patches of mm sized blebs, usually associated with carbonate alteration

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Alt: 210.43 - 292.71 Moderate Calcite>> Moderate calcite banding and mineral pseudomorphing clcite alteration throughout the MAFt and MDS units.

<<Vein: 217.55 - 217.8 100% Quartz-Carbonate>> Open vugs with euhedral quartz crystals

<<Vein: 224.85 - 225.1 50% Quartz-Carbonate>>

<<Vein: 243.54 - 244.57 80% Quartz-Carbonate>> A cm sized clot of fine grained galena

<<Vein: 250.4 - 250.95 75% Quartz-Carbonate>> Cutting fault zone

<<Struc: 211 - 211 Moderate-Strong dominant foliation>> Strong foliation defined by Micaceous parting planes and carbonate bands

<<Struc: 223 - 223 Moderate-Strong dominant foliation>> Moderate foliation defined by Micaceous parting planes and carbonate bands

<<Struc: 223.8 - 223.85 Weak Fault>> Small fault with crushed rock and minor gouge, parallel to the dominant foliation and local fold axes

<<Struc: 226.24 - 226.27 Weak-Moderate Fault>> Small fault, gouge dominant with a minor crushed rock component

<<Struc: 228.58 - 228.6 Weak-Moderate Fault>> Small fault, gouge dominant with a minor crushed rock component

<<Struc: 231.37 - 231.66 Moderate Fault>> Strong zone of faulting, strong gouge development (60%), with a lessser crushed rock component (40%)

<<Struc: 232.7 - 232.9 Weak Fault>> Zone of weak faulting, predominantly broken rock, with minor crushed rock and gouge

<<Struc: 237.04 - 237.07 Weak Fault>> Zone of weak faulting, predominantly broken rock, with minor crushed rock and gouge

<<Struc: 238.87 - 238.97 Moderate-Strong Fault>> Strong zone of faulting, strong gouge development (60%), with a lessser crushed rock component (40%)

<<Struc: 244.84 - 247.47 Moderate Fault>> Long interval of weak to moderate faulting, the interval is primarily broken rock, with smallintervals of crushed rock/gouge development

<<Struc: 249.6 - 249.6 Moderate dominant foliation>> Foliation defined by chloritic partings

<<Struc: 250.28 - 250.53 Moderate-Strong Fault>> Zone of intense gouge development, 80% gouge, 20% crushed rock. Parallel to the local foliation

255.89 256.89 MAFt Mafic Volcaniclastics grey-green FMG

255.89 - 256.89: Fine to medium grained grey-green well sorted mafic volcanislastic

256.89 266.68 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

256.89 - 266.68: Fine grained black and white carbonaceous mudstone with bands of white carbonate material, minor thin beds (?) of fine grey-green MAFt, less than 50 cm

<<Struc: 259.34 - 259.35 Weak-Moderate Fault>> Small zone of faulting, predominantly gouge

<<Struc: 259.65 - 259.71 Moderate Fault>> Small zone of faulting, predominantly gouge

<<Struc: 260.47 - 261.32 Moderate-Strong Fault>> Interval of multiple 5-10 cm gougy faults,

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

266.68 267.29 MAFt Mafic Volcaniclastics grey-green FMG

266.68 - 267.29: Fine to medium grained grey-green well sorted mafic volcanislastic

267.29 276.53 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

267.29 - 276.53: Fine grained black and white carbonaceous mudstone with bands of white carbonate material, minor thin beds (?) of fine grey-green MAFt, less than 50 cm

<<Min: 267.29 - 296.82 0.01% Min: Pyrite>> Patches of mm sized blebs, usually associated with carbonate alteration

<<Vein: 271.83 - 272.22 90% Quartz-Carbonate>>

<<Struc: 270.9 - 271 Weak-Moderate Fault>> Interval containing 5 small sub-10cm gouge-crushed rock faults

<<Struc: 274.34 - 275.25 Strong Shear>> Interval of strong shearing, fabric is deformed withiin the shear zone, gouge development on the margins of the shear

276.53 278.62 MAFt Mafic Volcaniclastics grey-green FMG

276.53 - 278.62: Fine to medium grained grey-green well sorted mafic volcanislastic

278.62 286.23 MDS Carbonaceous Mudstone & Tuffaceous Mudstone dark grey FG

278.62 - 286.23: Fine grained black and white carbonaceous mudstone with bands of white carbonate material, minor thin beds (?) of fine grey-green MAFt, less than 50 cm

<<Min: 278.62 - 296.82 0.01% Min: Pyrrhotite>> Patches of mm sized blebs, usually associated with carbonate alteration

<<Struc: 281.9 - 284.55 Moderate-Strong Fault>> Zone of broken rock including 4 2-30 cm intervals of gouge and broken rock

286.23 292.71 MAFt Mafic Volcaniclastics grey-green FMG

286.23 - 292.71: Fine to medium grained grey-green well sorted mafic volcanislastic interlayered with thin layers (beds?) of fine grained black carbonaceous mudstone 1-5 cm thick

292.71 296.82 FLZ Fault Zone light grey

292.71 - 296.82: Thick, intense fault zone, composed predominantly of rubbly/crushed rock with 4 20-30 cm zones of crushed rock and gouge

<<Alt: 292.71 - 296.82 Trace Calcite>> Weak calcite within the fault zone

<<Struc: 292.71 - 296.82 Strong Fault>> Thick, intense fault zone, composed predominantly of rubbly/crushed rock with 4 20-30 cm zones of crushed rock and gouge

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

296.82 304.91 RHYvx Quartz and/or feldspar crystal tuff light grey MCG

296.82 - 304.91: Light grey medium to coarse grained, clast rich, moderately to poorly sorted grit. The clasts present are dominantly angular crystal forms which have been pseudomorphed by quartz and calcite as well as abundant quartz eyes. Within the unit, there are two 5-20 cm ashy beds that grade in to the crystal rich portions. Common 1-4 cm black bands, oriented parallel to the foliation may represent welded (and flattened) pumice fragments.

<<Min: 296.82 - 307.43 0.01% Min: Pyrite>>

<<Alt: 296.82 - 329.23 Weak Calcite>> Weak calcite within the KZK ashy volcaniclastic rocks.

<<Vein: 297.41 - 298.84 20% Quartz-Carbonate>>

<<Struc: 299.68 - 300 Moderate Fault>> Zone of gouge andcrushed rock in equal parts, upper contact is at 45 degrees tca

<<Struc: 302.75 - 303.8 Weak-Moderate Fault>> Small interval of gouge and crushed rock

304.91 307.43 RHYvl Lapilli tuff light grey MG

304.91 - 307.43: Light to dark grey, poorly sorted lapilli bearing volcaniclastic conglomorate with rare quartz eyes. The lapilli have been pseudomorphed by quartz and calcite (quartz dominant).

<<Vein: 306.92 - 307.43 30% Quartz-Carbonate>>

<<Struc: 306.85 - 306.85 Moderate-Strong dominant foliation>> foliation defined by micaceous partings

307.43 308.05 FLZ Fault Zone light grey

307.43 - 308.05: light to medium grey fault zone comprising 30% gouge,30% crushed rock,and 40% rubbly/broken rock.

<<Struc: 307.43 - 308.05 Moderate-Strong Fault>> Intensely deformed foliation and development of gouge and crushed rock

308.05 309.80 RHYvl Lapilli tuff light grey MCG

308.05 - 309.8: light to mediu grey poorly sorted, lapilli and crystal (fragment?) bearing heterolithic tuffaceous conglomerate.

<<Min: 308.05 - 315 0.5% Min: Pyrite>>

<<Struc: 308.05 - 313.3 Weak-Moderate Fault>> Zone of broken rock with small (<5 cm) zones of crushed rock and minor gouge

309.80 311.03 RHYva Coarse grained to ash tuff grey-green FMG

309.8 - 311.03: light grey, moderately to well sorted, layered, tuffaceous siltstone, with rare (~1%) round lapilli clasts.

311.03 322.76 RHYva Coarse grained to ash tuff medium grey FCG

311.03 - 322.76: light grey rhyolitic vocaniclastic (resedimented?) with sections of scarce lapilli and sections containing what appear to be subrounded lithic fragments (crystalline, replaced by calcite and quartz, and crystal fragments.

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Min: 315 - 322.76 0.01% Min: Pyrrhotite>>

<<Vein: 322.66 - 322.76 80% Quartz-Carbonate>>

<<Struc: 316.27 - 316.37 Moderate Fault>> Small zone of gouge devolpment

<<Struc: 322 - 322 Weak-Moderate dominant foliation>> foliation defined by pooly develope micaceous partings

322.76 329.23 RHYvl Lapilli tuff medium grey FMG

322.76 - 329.23: Grey green biotite porpyroblast bearing tuffaceous lapilli bearing conglomorate, with bands (beds?) of lapilli poor tuffaceous siltstone

<<Min: 322.76 - 325.85 0.5% Min: Pyrrhotite>>

<<Min: 325.85 - 330.45 0.01% Min: Pyrrhotite>>

<<Alt: 322.76 - 338.57 Weak-Moderate Biotite>> Euhedral black biotite porpyroblasts in patches and bands, possibly representing a pelitic input.

<<Vein: 323.45 - 325.85 20% Quartz-Carbonate>>

<<Struc: 323.25 - 323.25 Weak-Moderate dominant foliation>> Foliation defined by micaceous partings

<<Struc: 324.8 - 324.8 Weak-Moderate Vein>> Foliation parallel vein

<<Struc: 327.6 - 327.6 Moderate dominant foliation>> Foliation defined by micaceous partings

329.23 330.45 RHYva Coarse grained to ash tuff grey-green FG

329.23 - 330.45: Grey green fine grained, well laminated tuffaceous siltstone with 0.2-1 cm porphyroblasts of cordierite (partially pseudomorphed by calcite) and biotite porphyroblasts.

<<Alt: 329.23 - 329.88 Moderate Cordierite>> Porphyroblasts of cordierite grown in the pelitic ash tuff

<<Alt: 329.23 - 333.99 Moderate-Strong Calcite>> Pervasive calcitewithin the RHYva with pelitic input.

330.45 331.00 RHYvl Lapilli tuff medium grey

330.45 - 331: Grey green biotite porpyroblast bearing tuffaceous lapilli bearing conglomorate.

<<Min: 330.45 - 335.5 0.5% Min: Pyrite>>

<<Vein: 330.45 - 331 0.5% Pyrite>>

331.00 333.99 RHYva Coarse grained to ash tuff grey-green FG

331 - 333.99: Grey green fine grained, well laminated tuffaceous siltstone with 0.2-1 cm porphyroblasts of cordierite (partially pseudomorphed by calcite) and biotite porphyroblasts.

<<Alt: 333.41 - 333.77 Weak-Moderate Cordierite>> Porphyroblasts of cordierite grown in the pelitic ash tuff

333.99 338.57 RHYvl Lapilli tuff medium grey MCG

333.99 - 338.57: Poorly sorted medium grey, lapilli poor (strongly matrix supported) tuffaceous conglomerate.

<<Min: 335 - 344.42 0.01% Min: Pyrrhotite>>

<<Alt: 333.99 - 338.57 Weak Calcite>> Weak calcite within the KZK ashy volcaniclastic rocks.

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

338.57 339.90 RHYva Coarse grained to ash tuff beige FG

338.57 - 339.9: Beige-green fine grained, well laminated tuffaceous siltstone.

<<Alt: 338.57 - 344.89 Moderate Calcite>> Strong patchy and vein calcite through the pelitic RHYva units and local RHYvl

<<Struc: 339.7 - 339.82 Moderate Fault>> Zone of gouge (dominant) and crushed rock

339.90 343.83 RHYvl Lapilli tuff medium grey

339.9 - 343.83: Poorly sorted medium grey, lapilli poor (strongly matrix supported) tuffaceous conglomerate.

<<Alt: 339.9 - 350.93 Weak-Moderate Biotite>> Euhedral black biotite porpyroblasts in patches and bands, possibly representing a pelitic input.

<<Alt: 343.82 - 344.89 Moderate-Strong Cordierite>> Porphyroblasts of cordierite grown in the pelitic ash tuff

<<Struc: 343 - 343 Moderate dominant foliation>> Foliation defined by micaceous partings

343.83 344.99 RHYva Coarse grained to ash tuff grey-green FG

343.83 - 344.99: Grey green fine grained, well laminated tuffaceous siltstone with 0.2-1 cm porphyroblasts of cordierite (partially pseudomorphed by calcite) and biotite porphyroblasts.

<<Alt: 344.89 - 360.13 Weak Calcite>> Weak calcite alteration of clasts within the RHYvl units,and rare veins/bands of calcite

344.99 346.00 RHYvl Lapilli tuff medium grey MCG

344.99 - 346: Poorly sorted medium grey, lapilli poor (strongly matrix supported) tuffaceous conglomerate.

346.00 350.93 RHYva Coarse grained to ash tuff medium grey MCG

346 - 350.93: Poorly sorted medium grey crystal (fragment?) and rarae lapilli bearing, matrix supported tuffaceous conglomerate.

350.93 360.13 RHYvl Lapilli tuff dark grey FCG

350.93 - 360.13: Poorly sorted dark grey green lapilli rich, matrix supported tuffaceous conglomerate.

<<Alt: 350.93 - 360.13 Moderate-Strong Biotite>> Black, foliation parallel bands-pervasive biotite alteration within the sedimentary matrix of the tuffaceous conglomorate units.

<<Struc: 352.65 - 352.83 Moderate Fault>> Small zones of gouge (dominant) and crushed rock within an interval of broken rock

<<Struc: 354.05 - 354.05 Moderate-Strong dominant foliation>> Foliation defined by micaceous partings

<<Struc: 355.2 - 355.2 Weak-Moderate dominant foliation>> Foliation defined by micaceous partings

360.13 363.80 FLZ Fault Zone light grey

360.13 - 363.8: light to medium grey fault zone comprising 30% gouge,30% crushed rock,and 40% rubbly/broken rock.

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Alt: 360.13 - 363.8 Weak-Moderate Calcite>> Moderate amountsof calcite presentint eh fault zone

<<Struc: 360.13 - 363.8 Strong Fault>> Thick, intense fault zone, composed predominantly of rubbly/crushed rock with 4 20-30 cm zones of crushed rock and gouge, with some zones of weakly broken competent rock

363.80 368.31 RHYvl Lapilli tuff light grey MG

363.8 - 368.31: Poorly sorted medium grey crystal (fragment?) and rarae lapilli bearing, matrix supported tuffaceous conglomerate.

<<Alt: 363.8 - 376.35 Moderate Biotite>> Black, banded-pervasive biotite alteration within the sedimentary matrix of the tuffaceous conglomorate units.

<<Alt: 363.8 - 380.6 Weak Calcite>> Weak calcite alteration of clasts are veins

368.31 369.20 RHYvx Quartz and/or feldspar crystal tuff light grey CG

368.31 - 369.2: Feldspar crystal supported conglomerate, white feldspar crystals and crystal fragments in a medium grey micaceous, pyritic matrix. The contacts, where preserved show a gradation into RHYva, and the matrix is a gritty,biotite bearing material, similar to the surrounding RHYva material.

369.20 376.35 RHYvl Lapilli tuff medium grey FCG

369.2 - 376.35: Poorly sorted medium grey crystal (fragment?) and rarae lapilli bearing, matrix supported tuffaceous conglomerate.

<<Struc: 375.85 - 381.1 Weak-Moderate Fault>> A zone of small (<8cm) gougy faults, spaced at 1-2m

376.35 377.04 RHYva Coarse grained to ash tuff medium grey FMG

376.35 - 377.04: Massive,medium grey, well sorted ash tuff layer, gradational upper contact with the lapilli conglomorate

377.04 380.60 RHYvx Quartz and/or feldspar crystal tuff light grey CG

377.04 - 380.6: Feldspar crystal supported conglomerate, white feldspar crystals and crystal fragments in a medium grey micaceous, pyritic matrix. The contacts, where preserved show a gradation into RHYva, and the matrix is a gritty,biotite bearing material, similar to the surrounding RHYva material.

<<Min: 377.04 - 386.07 0.01% Min: Pyrite>> Rare pyrite-carbonate veins

<<Alt: 377.2 - 386.07 Moderate Biotite>> Black, banded-pervasive biotite alteration within the sedimentary matrix of the tuffaceous conglomorate units.

380.60 386.07 RHYva Coarse grained to ash tuff grey-green FMG

380.6 - 386.07: Moderately sorted medium grey, rare lapilli bearing, matrix supported tuff.

<<Alt: 380.6 - 386.07 Trace Calcite>> Very weak alteration of clasts

<<Vein: 380.6 - 381 100% Quartz-Carbonate>> Pyrite and galena in equal proportions

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Vein: 384.25 - 384.28 100% Quartz-Carbonate>>

<<Struc: 384 - 384 Moderate dominant foliation>> Foliation defined by micaceous partings

<<Struc: 384.6 - 384.6 Weak Kink bands>>

<<Struc: 385.95 - 386.07 Weak-Moderate Fault>> A small gougy fault

386.07 389.18 RHYcw Curdy textured-flow banded (flows, subvolcanics) light grey FG

386.07 - 389.18: Well banded, siliceous, light grey, rhyolite flow. Siliceous bands cross the core, and are in spots, chaotically folded.

<<Struc: 387.88 - 387.91 Weak Fault>> A small gougy fault

389.18 389.72 PEL Equigranular biotite + calcite +/- quartz rock brown FG

389.18 - 389.72: Well laminated, well sorted brown, biotite bearing Pelitic sediment

<<Min: 389.18 - 393.1 0.5% Min: Pyrrhotite>> Pyrrhotite appears to be asociated with the pelite - Sulphur source?

<<Alt: 389.18 - 389.72 Moderate-Strong Biotite>> Dark brown pervasive foliation parallel (and defining) biotite

<<Vein: 389.32 - 389.48 25% Carbonate-Kaolinite/White clay>>

389.72 390.40 FLZ Fault Zone light grey

389.72 - 390.4: Fault zone is composed of well consolidated, non swelling clay gouge and granule to cobble sied rock fragments that, based on colour may be derived from the RHYcw

<<Struc: 389.72 - 390.4 Fault>> Fault zone is composed of well consolidated, non swelling clay gouge and granule to cobble sied rock fragments

390.40 393.55 PEL Equigranular biotite + calcite +/- quartz rock brown FG

390.4 - 393.55: Well laminated, well sorted brown, biotite bearing Pelitic sediment

<<Alt: 390.4 - 393.1 Strong Biotite>> Dark brown pervasive foliation parallel (and defining) biotite

<<Alt: 390.4 - 393.55 Moderate-Strong Calcite>> Strong calcite within the rown biotite bearing pelite

<<Vein: 390.45 - 391.17 65% Quartz-Carbonate>>

<<Vein: 393.1 - 393.32 90% Quartz-Carbonate>>

<<Struc: 392.5 - 392.5 Moderate-Strong dominant foliation>> Foliation defined by micaceous partings and calcitic bands

393.55 400.00 RHYva Coarse grained to ash tuff light grey FCG

393.55 - 400: Massive to moderatley laminated lapilli and crystal fragment bearing, ashy-tuffaceous volcaniclastic grit, with some 20-50 cm zones of finer grained ash materialand weak zones of euhedral black biotite alteration

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %

<<Min: 393.82 - 393.95 5% Min: Pyrite>> Patch of moderate disseminated/patchy pyrite, adjacent to a fault

<<Min: 396.46 - 400 0.01% Min: Pyrrhotite>>

<<Alt: 393.55 - 397.45 Moderate Biotite>> Black, banded-pervasive biotite alteration within the sedimentary matrix of the tuffaceous conglomorate units.

<<Alt: 393.55 - 400 Weak Calcite>> weak calcite within the ashy crystal/lapilli bearing volcaniclastic rocks

<<Alt: 397.45 - 398 Moderate Biotite>> Euhedral black biotite porpyroblasts in patches and bands, possibly representing a pelitic input.

<<Alt: 398 - 400 Weak Biotite>> Black, banded-pervasive biotite alteration within the sedimentary matrix of the tuffaceous conglomorate units.

<<Vein: 395.94 - 396.3 80% Quartz-Carbonate>>

<<Struc: 395.18 - 396.46 Moderate-Strong Fault>> Fault zone comprising several gouge-crushed rock zones with larger fragments of intact rock 5-20 cm long

End of Hole @ 400