

GeoSpark Logger ~ Drill Log

Project: KZK **Hole Number:** K16-373

Prospect:	Infrastructure	Hole Type:	DD	Survey Type:	RTK DGPS	Logged By:	Alicia Vainio	
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Challenger_Survey	Date Logging Start:	6/25/2016	
UTM Easting:	414908.291	Core Size:	HQ3	Azimuth:	290.3	Date Logging Complete:	6/29/2016	
UTM Northing:	6815031.826	Casing Pulled?:	Yes	Dip:	-60.1	Drill Company:	Hytech	
UTM Elev. (m):	1385.435	Casing Depth (m):	18.8	Length (m):	170.3	Drill Rig:	Tech 5000	
Local Easting:		Stored?:	Yes	Claims Title:		Drill Started:	6/23/2016	
Local Northing:		Cemented?:	Yes	Core Storage Loc.:	KZK Camp	Drill Completed:	6/26/2016	
Local Elev. (m):				Hole Completed?:	Completed	Purpose:	Geotech	
Comments:							Parent Hole:	

K16-373 is designed to provide detailed geotechnical information of the East fault structure and north wall stability as well as the footwall conditions. The expected stratigraphy consisting of MAFi, Rhyva and RHYi was intersected. The East Fault was first encountered at 115.68m.

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-60.1	288.9	1.4	290.3	TN14	Dillon Hume	6/23/2016		<input checked="" type="checkbox"/>	Rig aligned to true north (measured azimuth). Grid convergence of 1.4 deg applied to correct to UTM azimuth.
30.8	-60.2	270.5	22.1	292.6	ReflexEZS	Hytech	6/24/2016	5747	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
78.8	-60.4	269.7	22.1	291.8	ReflexEZS	Hytech	6/24/2016	5750	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
102.8	-61	268.9	22.1	291	ReflexEZS	Hytech	6/24/2016	5728	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
126.8	-61	269.7	22.1	291.8	ReflexEZS	Hytech	6/25/2016	5721	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
150.8	-60.8	270.2	22.1	292.3	ReflexEZS	Hytech	6/25/2016	5721	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
170.3	-60.6	270.7	22.1	292.8	ReflexEZS	Hytech	6/26/2016	5719	<input checked="" type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	18.80	OVBN Overburden									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
18.80	48.20	MAFi Mafic Intrusions (primarily green FMG footwall mafic intrusion)									
<p>18.8 - 48.2: Strongly foliated calcareous fine to medium grained mafic cut by several zones of fault gouge and two significant QZ+CA veins. Strongly calcareous up hole with patchy pale green calcareous domains, white granular calcite rhombs to 5mm and thin calcite veinlets. Calcareous alteration gives way down hole to stronger biotite and muscovite alteration with biotite defining foliation and muscovite occurring as patchy pale green to buff coloured alteration in the groundmass. Both biotite and muscovite bleaching increase in intensity towards underlying contact with OJ.</p> <p><<Alt: 18.8 - 28.4 Moderate Calcite>> Patchy pale green domains react in the groundmass, granular rhombs to 5mm thin chaotic veinlets along fractures</p> <p><<Alt: 28.4 - 46.2 Weak Calcite>></p> <p><<Alt: 35.4 - 38.9 Weak Biotite>> appears to define a foliation due to previously foliated mafic domains. 2-3 mm laths oriented randomly in up to 1 cm aggregates.</p> <p><<Alt: 37.8 - 47.3 Weak Muscovite>> patchy "bleaching of the groundmass to pale yellow</p> <p><<Alt: 38.9 - 46.2 Moderate-Strong Biotite>> Similar texture as above increasing in intensity downhole toward contact with OJ.</p> <p><<Alt: 46.2 - 48.2 Moderate Calcite>></p> <p><<Alt: 47.3 - 48.8 Moderate-Strong Muscovite>> pervasive through groundmass of mafic</p> <p><<Vein: 21.1 - 21.8 Calcite>></p> <p><<Vein: 31.3 - 32.2 Quartz-Carbonate>></p> <p><<Struc: 21.1 - 24.8 Moderate-Strong Fault>> Geotech Hole, more detailed information can be found in the geotech log</p> <p><<Struc: 34.2 - 35.3 Weak-Moderate Fault>></p>											
48.20	53.45	OJ Heavily disseminated sulphides and/or stringer style mineralization in proximal altered rock									
<p>48.2 - 53.45: Pale green grey chalky well foliated with increasing sulphides toward lower contact with the Mafic. Gradation of muscovite alteration through groundmass of the mafic to intensely altered OJ.</p> <p><<Min: 48.2 - 50.3 1% Min: Pyrite>></p> <p><<Min: 50.3 - 52 3% Min: Pyrite>></p> <p><<Min: 52 - 52.4 5% Min: Pyrite>></p> <p><<Min: 52.4 - 52.6 5% Min: Sphalerite>></p> <p><<Min: 52.4 - 52.6 20% Min: Pyrite>> 20 cm band of fine to medium grained equigranular semi-massive sulphide</p> <p><<Min: 52.4 - 52.6 2% Min: Pyrrhotite>></p> <p><<Min: 52.4 - 52.6 1% Min: Galena>></p> <p><<Min: 52.4 - 52.6 1% Min: Chalcopyrite>></p>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
<p><<Min: 52.6 - 53.1 3% Min: Pyrrhotite>> Contaned in calcareous domains 1-10mm wide within intense grey green alteration</p> <p><<Alt: 48.2 - 69.5 Trace Calcite>></p> <p><<Alt: 48.8 - 53.4 Intense Muscovite>></p> <p><<Alt: 53.4 - 74.6 Weak Biotite>></p> <p>53.45 78.10 MAFi Mafic Intrusions (primarily green-brown FMG footwall mafic intrusion)</p> <p>53.45 - 78.1: Fine to medium grained MAFi, biotite alteration increases downhole, with patchy MU and CA alteratio throughout. Locally CC domains contain PO clots.</p> <p><<Alt: 69.5 - 71.8 Weak-Moderate Calcite>> domainal CA-CB alteration imparts pseudo granular texture</p> <p><<Alt: 71.8 - 78.1 Weak Muscovite>></p> <p><<Alt: 74.6 - 78.1 Moderate Biotite>></p> <p>78.10 81.80 RHYi Aphanitic Rhyolite (intrusion) grey pink</p> <p>78.1 - 81.8: Mottled pink and green, aphanitic siliceous rock with abundant foliation parallel pyrite and phyrrotite veins to 5 mm wide. Contains fine grained disseminated ahedral pyrite</p> <p><<Min: 78.1 - 81.8 3% Min: Pyrite>></p> <p><<Min: 78.1 - 81.8 1% Min: Pyrrhotite>> with PY in thin folia parallel QZ-CA veins</p> <p><<Alt: 78.1 - 83.6 Weak Muscovite>></p> <p>81.80 86.10 RHYva Coarse grained to ash tuff grey-green FG</p> <p><<Min: 81.8 - 107.5 1% Min: Pyrite>></p> <p><<Alt: 83.6 - 103.7 Moderate Muscovite>></p> <p>86.10 103.90 RHYi Aphanitic Rhyolite (intrusion)</p> <p><<Alt: 103.7 - 107.5 Weak Muscovite>></p> <p>103.90 109.50 RHYva Coarse grained to ash tuff</p> <p><<Min: 107.5 - 108.1 3% Min: Pyrite>></p> <p><<Min: 108.1 - 170.3 0.1% Min: Pyrite>> Trace pyrite through fault zone occuring as fine grained disseminated or clots to 1 cm. they do not look like MXSX</p> <p><<Alt: 107.5 - 108.5 Weak Chlorite>></p> <p>109.50 114.10 RHYi Aphanitic Rhyolite (intrusion)</p> <p><<Alt: 111.1 - 170.3 Moderate-Strong Muscovite>></p> <p>114.10 115.68 MAFi Mafic Intrusions (primarily footwall mafic intrusion)</p> <p><<Struc: 114.1 - 170.3 Strong Fault>></p>											

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From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
115.68	123.80	FLZ	Fault Zone								
123.80	126.80	MDS	Carbonaceous Mudstone & Tuffaceous Mudstone								
126.80	138.80	FLZ	Fault Zone								
138.80	142.90	RHYvx	Quartz and/or feldspar crystal tuff								
142.90	170.30	FLZ	Fault Zone								
End of Hole @ 170.3											