

GeoSpark Logger ~ Drill Log

KZK

Hole Number:

K16-379

Infrastructure	Hole Type:	DD	Survey Type:	RTK DGPS	Logged By:	Alicia Vainio
NAD83_Z9	Hole Diameter:	96	Survey By:	Challenger_Survey	Date Logging Start:	7/8/2016
414964.243	Core Size:	HQ3	Azimuth:	360	Date Logging Complete:	7/9/2016
6814627.138	Casing Pulled?:	Yes	Dip:	-90	Drill Company:	Hytech
1404.927	Casing Depth (m):	6	Length (m):	39.7	Drill Rig:	Tech 5000
	Stored?:	Yes	Claims Title		Drill Started:	7/2/2016
	Cemented?:	VWP	Core Storage Loc.:	KZK Camp	Drill Completed:	7/3/2016
			Hole Completed?:	Completed	Purpose:	Geotech
					Parent Hole:	
	Infrastructure NAD83_Z9 414964.243 6814627.138 1404.927	InfrastructureHole Type:NAD83_Z9Hole Diameter:414964.243Core Size:6814627.138Casing Pulled?:1404.927Casing Depth (m):Stored?:Cemented?:	InfrastructureHole Type:DDNAD83_Z9Hole Diameter:96414964.243Core Size:HQ36814627.138Casing Pulled?:Yes1404.927Casing Depth (m):6Stored?:YesCemented?:VWP	InfrastructureHole Type:DDSurvey Type:NAD83_Z9Hole Diameter:96Survey By:414964.243Core Size:HQ3Azimuth:6814627.138Casing Pulled?:YesDip:1404.927Casing Depth (m):6Length (m):Stored?:YesClaims TitleCemented?:VWPCore Storage Loc.:Hole Completed?:KesKes	InfrastructureHole Type:DDSurvey Type:RTK DGPSNAD83_Z9Hole Diameter:96Survey By:Challenger_Survey414964.243Core Size:HQ3Azimuth:3606814627.138Casing Pulled?:YesDip:-901404.927Casing Depth (m):6Length (m):39.7Stored?:YesCaims Title-Cemented?:VWPCore Storage Loc.:KZK CampHole Completed?:KZK Camp-	InfrastructureHole Type:DDSurvey Type:RTK DGPSLogged By:NAD83_Z9Hole Diameter:96Survey By:Challenger_SurveyDate Logging Start:414964.243Core Size:HQ3Azimuth:360Date Logging Complete:6814627.138Casing Pulled?:YesDip:-90Drill Company:1404.927Casing Depth ():6Length (m):39.7Drill Rig:1404.927Core Storage Loc:KZK CampDrill Started:Drill Started:1404.927VWPCore Storage Loc:KZK CampDrill Completed:1404.927VWPCore Storage Loc:KZK CampParent Hole:

Project:

The purpose of drillhole K16-379 was to collect geotechnical and hydrological information for a potential site of infrastructure. The drillhole collared into bedrock at 5.67 m; the bedrock consisted of alternating coherent and volcaniclastic rhyolite, with a small mafic dyke (32.17-32.43m). Weak to moderate biotite and chlorite alteration was prominent between 11.53-23.06 m, with chlorite alteration ending at 2 0m. Wisps of sulphosalts (?) were encountered within the undifferentiated-altered rhyolite (7.71-8.25 m).

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-90	360	0	360	PLND-LIDAR	Knight Piésold	7/2/2016		\checkmark	

From (m)	To (m)		Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	5.67	OVBN	Overburden									
5.67	7.71	RHYcw	Curdy textured-flow banded (flows, subvolcanics)									
5.67 - 7.71:	Silicic band	ing; well-devel	oped crenulation cleavage.									
< <min: 5.6<="" td=""><td>7 - 7.71 0.1</td><td>% Min: Pyrite></td><td>»</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	7 - 7.71 0.1	% Min: Pyrite>	»									
< <alt: 5.67<="" td=""><td>- 7.71 Mo</td><td>derate Muscovi</td><td>te>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	- 7.71 Mo	derate Muscovi	te>>									
< <alt: 5.67<="" td=""><td>- 7.71 Tra</td><td>ce Calcite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	- 7.71 Tra	ce Calcite>>										
< <struc: 7.<="" td=""><td>51 - 7.52</td><td>Crenulation cle</td><td>avage>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	51 - 7.52	Crenulation cle	avage>>									
7.71	8.25	RHYv	Rhyolite volcaniclastic	7.71	8.25	0.54	D00004323	-0.005	0.9	-0.01	-0.01	0.03
7.71 - 8.25: the original f	Volcaniclas exture is of	tic RHY with st oscure.	trong sericite alteration, and wisps of sulphosalts. Banding has been contorted, and									
< <min: 7.7<="" td=""><td>1 - 8.25 0.1</td><td>% Min: Sulpho</td><td>salts>> Wisps of SS within MU and Bi altered RHYv.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	1 - 8.25 0.1	% Min: Sulpho	salts>> Wisps of SS within MU and Bi altered RHYv.									
< <min: 7.7<="" td=""><td>1 - 8.25 1%</td><td>Min: Pyrite>></td><td>Wispy-disseminated PY.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	1 - 8.25 1%	Min: Pyrite>>	Wispy-disseminated PY.									
< <min: 7.7<="" td=""><td>1 - 8.25 0.5</td><td>5% Min: Pyrrho</td><td>tite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	1 - 8.25 0.5	5% Min: Pyrrho	tite>>									
L												



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	EGOIT	CONSULTANTS LTD.	Project:	Project: KZK			Number:					
From (m)	To (m)	Rocktype & Description		From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
< <alt: 7.7<="" td=""><td>1 - 8.25 Weak Calcite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	1 - 8.25 Weak Calcite>>											
< <alt: 7.7<="" td=""><td>1 - 8.25 Weak Biotite>></td><td>Disseminated-wispy Bi.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	1 - 8.25 Weak Biotite>>	Disseminated-wispy Bi.										
< <vein: 7<="" td=""><td>.71 - 7.75 Quartz-Carbona</td><td>te 65 deg. >> Quartz vein with carbon</td><td>nate-rich blebs.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	.71 - 7.75 Quartz-Carbona	te 65 deg. >> Quartz vein with carbon	nate-rich blebs.									
8.25	23.06 RHYvI	Lapilli tuff										
8.25 - 23.0 continues t	6: Localized silicic bands a to the end of the unit.	round 12.8m. Mod-strong chlorite and I	biotite alteration begins at approx 11.6m, an	d								
< <min: 8.2<="" td=""><td>25 - 11.53 1% Min: Pyrrho</td><td>tite>> Elongated blebs of PO, dissem</td><td>ninated along foliation.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	25 - 11.53 1% Min: Pyrrho	tite>> Elongated blebs of PO, dissem	ninated along foliation.									
< <min: 8.2<="" td=""><td>25 - 23.06 0.1% Min: Pyrite</td><td>e>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	25 - 23.06 0.1% Min: Pyrite	e>>										
< <min: 11<="" td=""><td>.53 - 23.06 0.1% Min: Pyr</td><td>rhotite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.53 - 23.06 0.1% Min: Pyr	rhotite>>										
< <alt: 8.2<="" td=""><td>5 - 11.53 Moderate-Strong</td><td>Muscovite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	5 - 11.53 Moderate-Strong	Muscovite>>										
< <alt: 8.2<="" td=""><td>5 - 11.53 Weak Calcite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	5 - 11.53 Weak Calcite>>											
< <alt: 11.<="" td=""><td>53 - 20 Weak-Moderate M</td><td>luscovite>> Weaker MU alteration wit</td><td>thin CL-BI altered zone.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	53 - 20 Weak-Moderate M	luscovite>> Weaker MU alteration wit	thin CL-BI altered zone.									
< <alt: 11.<="" td=""><td>53 - 20 Weak-Moderate C</td><td>hlorite>> Disseminated blebs-clots.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	53 - 20 Weak-Moderate C	hlorite>> Disseminated blebs-clots.										
< <alt: 11.<="" td=""><td>53 - 23.06 Weak-Moderate</td><td>e Biotite>> Disseminated-banded Bi.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	53 - 23.06 Weak-Moderate	e Biotite>> Disseminated-banded Bi.										
< <alt: 11.<="" td=""><td>53 - 32.17 Weak-Moderate</td><td>e Calcite>> Disseminated-banded CA</td><td>۹.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	53 - 32.17 Weak-Moderate	e Calcite>> Disseminated-banded CA	۹.									
< <alt: 20<="" td=""><td>- 32.17 Moderate Muscovi</td><td>te>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	- 32.17 Moderate Muscovi	te>>										
< <vein: 1<br="">weakly-ox</vein:>	6.17 - 16.25 Quartz-Tourm didized.	naline 45 deg. >> Sub-angular quartz	clasts brecciated by tourmaline; the vein is									
< <vein: 2<="" td=""><td>1.61 - 23.21 Quartz-Carbo</td><td>nate>> Deformed quartz-carbonate v</td><td>veins within RHY.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	1.61 - 23.21 Quartz-Carbo	nate>> Deformed quartz-carbonate v	veins within RHY.									
< <struc: 9<="" td=""><td>9.03 - 9.04 dominant foliat</td><td>tion>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	9.03 - 9.04 dominant foliat	tion>>										
< <struc: 1<="" td=""><td>11.77 - 11.78 dominant fo</td><td>liation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	11.77 - 11.78 dominant fo	liation>>										
< <struc: 1<="" td=""><td>13.87 - 13.88 dominant fo</td><td>liation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	13.87 - 13.88 dominant fo	liation>>										
< <struc: 1<="" td=""><td>16.68 - 16.69 dominant fo</td><td>liation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	16.68 - 16.69 dominant fo	liation>>										
< <struc: 1<="" td=""><td>19.33 - 19.34 dominant fo</td><td>liation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	19.33 - 19.34 dominant fo	liation>>										
< <struc: 2<br="">gouge at t</struc:>	21.4 - 21.7 Weak Fault>> the start of the FLT.	Crushed-healed FLT zone with subro	unded, brecciated clasts. Cm-size band of									
< <struc: 2<="" td=""><td>22.7 - 22.71 dominant folia</td><td>ation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	22.7 - 22.71 dominant folia	ation>>										
23.06	27.92 RHYcf	Feldspar & feldspar quar porphyry	rtz									
23.06 - 27.	92: Dismembered RHYcf w	vith cm-size, subrounded feldspar. QTZ	Z-PY bands are irregular and deformed.									
< <min: 23<="" td=""><td>3.06 - 29.48 3% Min: Pyrite</td><td>>> Disseminated PY localized within</td><td>deformed quartz bands.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	3.06 - 29.48 3% Min: Pyrite	>> Disseminated PY localized within	deformed quartz bands.									
< <min: 23<="" td=""><td>8.06 - 29.48 1% Min: Pyrrh</td><td>otite>> Disseminated PO localized w</td><td>ithin deformed quartz bands.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	8.06 - 29.48 1% Min: Pyrrh	otite>> Disseminated PO localized w	ithin deformed quartz bands.									
< <vein: 2<="" td=""><td>5.77 - 25.8 Quartz-Carbon</td><td>ate>> Quartz vein with CA blebs.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	5.77 - 25.8 Quartz-Carbon	ate>> Quartz vein with CA blebs.										



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		aon	CONSULIANTS LID.	Project:	KZK		Hole N	K16	6-379				
From (m)	To (m)		Rocktype & Description		From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
<struc: 2<="" td=""><td>25.15 - 25.16</td><td>6 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	25.15 - 25.16	6 dominant fo	oliation>>										
27.92	32.17	RHYvx	Quartz and/or feldspar cry tuff	vstal									
27.92 - 32.1	17: QE and	elongated-LP	L within fine-grained tuff.										
< <min: 29<="" td=""><td>.48 - 32.17</td><td>0.5% Min: Py</td><td>rite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.48 - 32.17	0.5% Min: Py	rite>>										
< <min: 29<="" td=""><td>.48 - 32.17</td><td>0.1% Min: Py</td><td>rrhotite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.48 - 32.17	0.1% Min: Py	rrhotite>>										
< <vein: 29<="" td=""><td>9.48 - 29.6</td><td>Quartz-Carbo</td><td>nate>> Deformed quartz veins with CA</td><td>blebs.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	9.48 - 29.6	Quartz-Carbo	nate>> Deformed quartz veins with CA	blebs.									
< <vein: 32<="" td=""><td>2-32.02 Q</td><td>uartz-Carbona</td><td>ate 45 deg. >> Quartz vein with CA bleb</td><td>S.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></vein:>	2-32.02 Q	uartz-Carbona	ate 45 deg. >> Quartz vein with CA bleb	S.									
< <struc: 2<="" td=""><td>8.47 - 28.48</td><td>3 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	8.47 - 28.48	3 dominant fo	oliation>>										
< <struc: 3<="" td=""><td>0.58 - 30.59</td><td>9 dominant for the second s</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	0.58 - 30.59	9 dominant for the second s	oliation>>										
< <struc: 3<="" td=""><td>1.04 - 31.05</td><td>5 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	1.04 - 31.05	5 dominant fo	oliation>>										
32.17	32.43	MAFi	Mafic Intrusions (primarily footwall mafic intrusion)	/									
32.17 - 32.4 upper and I	43: Fine-gra ower CNT.	ined, carbona	te-rich MAFi dyke with well-developed foli	ation and crenulation cleavage. Sha	rp								
< <min: 32<="" td=""><td>.17 - 32.43</td><td>1% Min: Pyrit</td><td>e>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.17 - 32.43	1% Min: Pyrit	e>>										
< <min: 32<="" td=""><td>.17 - 32.43</td><td>1% Min: Pyrrl</td><td>hotite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.17 - 32.43	1% Min: Pyrrl	hotite>>										
< <alt: 32.7<="" td=""><td>17 - 32.43 N</td><td>Aoderate-Stro</td><td>ong Calcite>> Carbonate-rich MAFi.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	17 - 32.43 N	Aoderate-Stro	ong Calcite>> Carbonate-rich MAFi.										
< <struc: 3<="" td=""><td>2.25 - 32.26</td><td>6 Crenulation</td><td>n cleavage>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	2.25 - 32.26	6 Crenulation	n cleavage>>										
< <struc: 3<="" td=""><td>2.37 - 32.38</td><td>3 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	2.37 - 32.38	3 dominant fo	oliation>>										
32.43	39.70	RHYvl	Lapilli tuff										
32.43 - 39.7	7: Localized	zones of qua	rtz eyes, with random-singular QE throug	hout the unit.									
< <min: 32<="" td=""><td>.43 - 34.39</td><td>0.1% Min: Py</td><td>rite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.43 - 34.39	0.1% Min: Py	rite>>										
< <min: 34<="" td=""><td>.39 - 39.7 3</td><td>% Min: Pyrite</td><td>>> Disseminated-bands of PY +/- PO.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.39 - 39.7 3	% Min: Pyrite	>> Disseminated-bands of PY +/- PO.										
< <min: 34<="" td=""><td>.39 - 39.7 0</td><td>.1% Min: Pyrr</td><td>rhotite>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></min:>	.39 - 39.7 0	.1% Min: Pyrr	rhotite>>										
< <alt: 32.4<="" td=""><td>43 - 39.7 W</td><td>eak Muscovit</td><td>e>> Weak MU alteration within RHY; all</td><td>teration visible on fractured surfaces</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	43 - 39.7 W	eak Muscovit	e>> Weak MU alteration within RHY; all	teration visible on fractured surfaces									
< <alt: 32.4<="" td=""><td>43 - 39.7 W</td><td>eak-Moderate</td><td>e Calcite>> Disseminated blebs-bands of</td><td>of CA.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></alt:>	43 - 39.7 W	eak-Moderate	e Calcite>> Disseminated blebs-bands of	of CA.									
< <struc: 3<="" td=""><td>2.43 - 32.44</td><td>Contact>></td><td>Sharp lower CNT.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	2.43 - 32.44	Contact>>	Sharp lower CNT.										
< <struc: 3<="" td=""><td>5.31 - 35.32</td><td>2 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	5.31 - 35.32	2 dominant fo	oliation>>										
< <struc: 3<="" td=""><td>8.65 - 38.66</td><td>6 dominant fo</td><td>oliation>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></struc:>	8.65 - 38.66	6 dominant fo	oliation>>										
End of H	Hole @ 3	9.7											