

GeoSpark Logger ~ Drill Log

Project:

KZK

Hole Number:

K16-375

Prospect:	ABM	Hole Type:	DD	Survey Type:	RTK DGPS	Logged By:	Jerome de Pasquale	
Grid:	NAD83_Z9	Hole Diameter:	96	Survey By:	Challenger_Survey	Date Logging Start:	6/28/2016	
UTM Easting	414503.246	Core Size:	HQ3	Azimuth:	180.3	Date Logging Complete:	6/29/2016	
UTM Northing:	6815417.532	Casing Pulled?:	Yes	Dip:	-60	Drill Company:	Hytech	
UTM Elev. (m):	1469.364	Casing Depth (m):	12	Length (m):	171	Drill Rig:	Tech 5000	
Local Easting:		Stored?:	Yes	Claims Title		Drill Started:	6/26/2016	
Local Northing:		Cemented?:	Yes	Core Storage Loc.:	KZK Camp	Drill Completed:	6/27/2016	
Local Elev. (m):				Hole Completed?:	Completed	Purpose:	Resource Definition	
Comments:							Parent Hole:	

Collared in order to test lens continuity 50 m step out from last intersected ore horizon, West of ABM deposit.
 From 12.00m to 98.54m, K16-375 is made up of volcanoclastic and flow banded rhyolitic units containing varying carbonaceous content. At 98.54m, K16-375 intercepts a fractured/pyrite rich (up to 10%) aphanitic unit (minor sphalerite/pyrrhotite, chalcopyrite trace). A mafic sill interrupts this unit from 135.16m to 149.08m. The contact is marked by silica/muscovite alteration (fuchsite).
 The end of the hole consists in mafic tuff and flow banded rhyolite.
 Muscovite alteration, considered as original, is observed from 25.58m to 135.16m.
 No ore horizon was intercepted.
 The hole was shut down at 171.00m.

Downhole Surveys:

Depth (m)	Dip	Measured Azimuth	Correction Factor	Corrected Azimuth	Survey Type	Survey By	Survey Date	Mag Field	Accept Values?	Comments
0	-60	178.9	1.4	180.3	TN14	Dillon Hume	6/26/2016		<input checked="" type="checkbox"/>	Rig aligned to true north (measured azimuth). Grid convergence of 1.4 deg applied to correct to UTM azimuth.
5	-59.86793	178.41969	1.4	179.81969	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
10	-60.09566	177.99707	1.4	179.39707	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
15	-60.05902	177.77653	1.4	179.17653	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
20	-60.07584	177.53508	1.4	178.93508	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
25	-60.13183	177.37603	1.4	178.77603	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
27	-60.1	157.7	22.1	179.8	ReflexEZS	Hytech	6/26/2016	5825	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
30	-60.29532	177.19267	1.4	178.59267	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
35	-60.42595	176.94829	1.4	178.34829	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
40	-60.48855	176.90475	1.4	178.30475	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
45	-60.49855	177.01241	1.4	178.41241	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
50	-60.22476	177.17192	1.4	178.57192	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
51	-60.5	159.8	22.1	181.9	ReflexEZS	Hytech	6/26/2016	5824	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
55	-60.1009	177.26439	1.4	178.66439	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
60	-59.98308	177.37731	1.4	178.77731	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	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	-59.95944	177.77864	1.4	179.17864	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
70	-59.90039	177.97263	1.4	179.37263	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
75	-59.72088	178.15824	1.4	179.55824	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
75.01	-59.5	157.9	22.1	180	ReflexEZS	Hytech	6/26/2016	5753	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
80	-59.55505	178.46735	1.4	179.86735	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
85	-59.38113	178.59363	1.4	179.99363	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
90	-59.31836	178.67141	1.4	180.07141	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
95	-59.18576	178.76936	1.4	180.16936	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
99	-59.2	159.8	22.1	181.9	ReflexEZS	Hytech	6/27/2016	5749	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
100	-59.12665	179.01528	1.4	180.41528	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
105	-58.99814	179.1698	1.4	180.5698	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
110	-58.87847	179.46938	1.4	180.86938	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
115	-58.79079	179.81512	1.4	181.21512	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
120	-58.65624	180.08361	1.4	181.48361	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
123	-58.4	162	22.1	184.1	ReflexEZS	Hytech	6/27/2016	5749	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
125	-58.52622	180.45719	1.4	181.85719	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
130	-58.43392	180.67888	1.4	182.07888	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
135	-58.32448	180.92276	1.4	182.32276	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
140	-58.39577	181.14066	1.4	182.54066	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
145	-58.3592	181.45495	1.4	182.85495	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
150	-58.37093	181.63048	1.4	183.03048	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
150.01	-58.5	162.4	22.1	184.5	ReflexEZS	Hytech	6/27/2016	5744	<input type="checkbox"/>	Measured azimuth relative to magnetic north. Grid declination of 22.1 deg applied to correct to UTM azimuth.
155	-58.36101	181.91987	1.4	183.31987	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100
160	-58.30533	182.17165	1.4	183.57165	Gyro	Steve Bultitude	6/28/2016		<input checked="" type="checkbox"/>	100

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
0.00	12.00	OVBN Overburden									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
12.00	20.44	MDSw Coherent rhyolite flow with carbonaceous content									
<p>12 - 20.44: Wavy flow bands, folded/crenulated, heterogeneous texture, carbonaceous banded.</p> <p><<Min: 20.38 - 76.7 0.5% Min: Pyrrhotite>> Associated with QZ/PY patch and rare disseminated PO.</p>											
20.44	22.19	MDSc Carbonaceous dominant mudstone									
<p>20.44 - 22.19: Fine grain, black, silicified mudstone (glassy), folded.</p> <p><<Alt: 20.44 - 22.19 Moderate-Strong Silicification>></p>											
22.19	25.32	MDSt Rhyolite tuff dominant mudstone									
<p>22.19 - 25.32: Thinly foliated, light to medium grey.</p> <p><<Min: 22.19 - 40.77 0.5% Min: Pyrite>></p> <p><<Alt: 22.19 - 44 Weak Calcite>></p> <p><<Struc: 24.32 - 24.33 dominant foliation>></p>											
25.32	36.50	RHYc Rhyolite coherent volcanics									
<p>25.32 - 36.5: Texture obscured, MU altered, brecciated from 30.0m to 31.80m. Patch mineralization (SP/CP/GL/PY-possibly AS (silvery mineral)).</p> <p><<Min: 28.38 - 44.15 0.5% Min: Sphalerite>> Associated with QZ/PY patch.</p> <p><<Min: 28.38 - 44.15 0.1% Min: Galena>> Associated with QZ/PY patch.</p> <p><<Min: 28.38 - 44.15 0.1% Min: Chalcopyrite>> Associated with QZ/PY patch.</p> <p><<Alt: 25.58 - 52.72 Moderate-Strong Muscovite>></p> <p><<Struc: 27 - 29.5 Weak-Moderate Fault>></p> <p><<Struc: 29.5 - 32 Moderate Fault>> Brecciated.</p>											
36.50	46.05	RHY undifferentiated rhyolite									
<p>36.5 - 46.05: Texture obscured by MU alteration, possibly volcanoclastic unit. Weak CL alteration locally, QZ/PY patch and few SP/GL, rare PO. Massive QZ vein at lower contact.</p> <p><<Min: 40.77 - 46.05 1% Min: Pyrite>></p> <p><<Alt: 43 - 45 Moderate Silicification>></p> <p><<Alt: 44 - 50 Weak-Moderate Calcite>></p> <p><<Vein: 45.61 - 45.94 Quartz>> QZ few CA in fracture</p> <p><<Struc: 42 - 42.36 Weak Fault>></p>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
46.05	47.73	RHYcw Curdy textured-flow banded (flows, subvolcanics)									
46.05 - 47.73: Flow banded, MU altered, light green. Gradual lower contact.											
<<Min: 46.05 - 82 3% Min: Pyrite>>											
47.73	48.78	RHYvl Lapilli tuff									
47.73 - 48.78: Mu altered, gradual lower contact.											
48.78	49.81	RHYcw Curdy textured-flow banded (flows, subvolcanics)									
48.78 - 49.81: Flow banded, almost curdy. Altered MU, few PO. Gradual contacts.											
49.81	57.97	RHY undifferentiated rhyolite									
49.81 - 57.97: MU altered, locally fault gouge/breccia containing RHY clasts up to 5 cm wide in grey clay/sandy matrix.											
<<Alt: 50 - 64 Weak Calcite>>											
<<Alt: 52.72 - 57.97 Moderate Muscovite>>											
<<Struc: 53.8 - 55.1 Weak-Moderate Fault>> Fault gouge and fault breccia, clay and rhyolite clasts.											
57.97	70.14	RHYcw Curdy textured-flow banded (flows, subvolcanics)									
57.97 - 70.14: Possibly carbonaceous content. Flow banded. Weakly faulted at lower contact.											
<<Alt: 64 - 82 Trace Calcite>>											
70.14	83.79	MDSw Coherent rhyolite flow with carbonaceous content									
70.14 - 83.79: Flow banded, light grey, containing mineralized patch (PY/PO/CP/GL/SP). Locally fault gouge, sandy clay. Lower contact marked by TML/QZ/MU over 1.50 and granular texture.											
<<Min: 70.7 - 81.7 0.5% Min: Sphalerite>>											
<<Min: 70.7 - 81.7 2% Min: Pyrrhotite>>											
<<Min: 70.7 - 81.7 0.1% Min: Galena>> Possibly some ASPY.											
<<Min: 70.7 - 81.7 0.5% Min: Chalcopyrite>>											
<<Min: 76.07 - 150 0.5% Min: Pyrrhotite>>											
<<Min: 82 - 99.15 2% Min: Pyrite>>											
<<Alt: 81.74 - 83.79 Strong Muscovite>> Associated with TML vein.											
<<Alt: 82 - 83.5 Weak Calcite>>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
<p><<Alt: 83.5 - 98.5 Trace Calcite>></p> <p><<Vein: 82.1 - 83.28 Quartz-Tourmaline>> TML/QZ in strongly muscovite altered rhyolite</p> <p><<Struc: 70.14 - 72.5 Weak-Moderate Fault>> Multiple narrow fault and gouge. Highly sericitic.</p> <p>83.79 88.12 RHYcw Curdy textured-flow banded (flows, subvolcanics)</p> <p>83.79 - 88.12: Altered MU (moderate to strong). Light grey/green. Possibly some carbonaceous material and locally flow.</p> <p><<Alt: 83.79 - 85 Moderate Muscovite>></p> <p><<Alt: 85 - 89.93 Weak Muscovite>></p> <p>88.12 90.44 RHYv Rhyolite volcaniclastic</p> <p>88.12 - 90.44: Gradual contacts.</p> <p>90.44 96.38 RHYcw Curdy textured-flow banded (flows, subvolcanics)</p> <p>90.44 - 96.38: Altered MU, flow banded.</p> <p><<Alt: 93.63 - 95.95 Moderate-Strong Muscovite>></p> <p><<Alt: 95.95 - 98.54 Weak Muscovite>></p> <p>96.38 98.54 MDSt Rhyolite tuff dominant mudstone</p> <p>96.38 - 98.54: Or RHYv BI rich, fine to medium grain. Medium grey to blue. Marked by lack of MU alteration.</p> <p><<Alt: 98.5 - 135.16 Weak-Moderate Calcite>> And in RHYi fractured with QZ/PY.</p> <p>98.54 116.60 RHYi Aphanitic Rhyolite (intrusion)</p> <p>98.54 - 116.6: Aphanitic texture, possibly extrusive (RHYc). Silica rich fractured filled by QZ/PY up to 10%, few SP/GL. Locally MU bands and pinkish color suggesting feldspar alteration. Silica patch showing amygdular silica "tear drop". Possibly rhyolitic dome.</p> <p><<Min: 99.15 - 101.7 5% Min: Pyrite>></p> <p><<Min: 101.7 - 113.93 8% Min: Pyrite>></p> <p><<Min: 113.93 - 116.07 5% Min: Pyrite>></p> <p><<Min: 116.07 - 120.83 3% Min: Pyrite>></p> <p><<Alt: 98.54 - 103.66 Moderate Muscovite>></p> <p><<Alt: 103.66 - 135.16 Moderate Silicification>> Locally cherty.</p> <p><<Alt: 103.66 - 135.16 Weak-Moderate Muscovite>></p> <p><<Vein: 98.54 - 135.16 Pyrite>> PY stringer with rare SP/GL in fractured RHYi or RHYc</p>											

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
116.60	118.57	RHYva Coarse grained to ash tuff 116.6 - 118.57: Greenish color, fine to medium grain, possibly intermediate composition, MU altered. <<Struc: 117.26 - 117.27 dominant foliation>>									
118.57	118.83	CHT Chert 118.57 - 118.83: Highly silicified, banded, translucent silica showing cherty aspect (exhalite?).									
118.83	120.87	RHYva Coarse grained to ash tuff 118.83 - 120.87: Greenish color, fine/med grain, possibly mafic content. <<Min: 120.83 - 130.14 5% Min: Pyrite>>									
120.87	130.14	RHYi Aphanitic Rhyolite (intrusion) 120.87 - 130.14: Fractured, PY filling, possibly RHYc. Color from grey to pinkish.									
130.14	130.94	RHYva Coarse grained to ash tuff 130.14 - 130.94: RHYva mixed with RHYi, marked by local granular texture. Greenish color, gradual contacts. <<Struc: 130.63 - 130.64 dominant foliation>>									
130.94	135.16	RHYi Aphanitic Rhyolite (intrusion) 130.94 - 135.16: Strong MU alteration in fracture, PY/SP stringers. Could be interpreted as RHYc. <<Min: 130.94 - 135.16 2% Min: Sphalerite>> <<Min: 130.94 - 135.16 5% Min: Pyrite>> <<Struc: 133.76 - 133.77 dominant foliation>>									
135.16	149.08	MAFi Mafic Intrusions (primarily footwall mafic intrusion) 135.16 - 149.08: Or MAFt. Pervasive CA alteration at upper contact turning to CA banded. CL/MU altered. BI overprint. Green/grey alteration at lower contact/fuchsite. Specks of ferro-carbonate (pseudo leucoxene). <<Min: 135.16 - 149.08 1% Min: Pyrrhotite>> <<Alt: 135.16 - 149.09 Moderate-Strong Calcite>> And banded. <<Alt: 139.35 - 148.06 Moderate-Strong Biotite>> <<Alt: 147.54 - 155.38 Moderate Silicification>> Green/grey alteration/proximity of RHYi. <<Alt: 147.54 - 170 Moderate Muscovite>> <<Struc: 138.16 - 138.17 dominant foliation>>									

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
149.08	151.20	RHYc Rhyolite coherent volcanics 149.08 - 151.2: Fractured, PY/SP stringers, few PY, CP trace. Strong MU in fracture. <<Min: 149.08 - 155.38 3% Min: Pyrite>> <<Min: 149.08 - 155.38 3% Min: Pyrrhotite>> Mostly concentrated at upper contact with MAFi. <<Min: 149.08 - 155.38 0.1% Min: Chalcopyrite>> <<Alt: 149.09 - 165.49 Moderate Calcite>> Veining.									
151.20	152.39	MAFt Mafic Volcaniclastics 151.2 - 152.39: Fine grain, QZ/CA veining. MU altered.									
152.39	155.38	RHYcw Curdy textured-flow banded (flows, subvolcanics) 152.39 - 155.38: Large silica bands, PY/SP stringers. Could be interpreted as RHYi. <<Min: 152.39 - 155.38 0.5% Min: Sphalerite>>									
155.38	157.30	RHYcw Curdy textured-flow banded (flows, subvolcanics) 155.38 - 157.3: Locally flow banded. Possibly intermediate composition. MU altered. <<Min: 155.38 - 171 1% Min: Pyrite>> <<Min: 155.38 - 171 0.5% Min: Pyrrhotite>>									
157.30	165.49	MAFt Mafic Volcaniclastics 157.3 - 165.49: Or RHYva. Texture obscured. CA veining suggesting mafic content or intermediate composition. <<Struc: 158.36 - 158.37 dominant foliation>> <<Struc: 165.3 - 165.31 dominant foliation>>									
165.49	166.70	RHYcw Curdy textured-flow banded (flows, subvolcanics) 165.49 - 166.7: Flow banded. Greenish color/MU alteration. <<Alt: 165.49 - 171 Weak Calcite>>									
166.70	170.15	MAFt Mafic Volcaniclastics 166.7 - 170.15: Or RHYva. Texture obscured. <<Struc: 167.26 - 167.27 dominant foliation>>									

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K16-375

From (m)	To (m)	Rocktype & Description	From (m)	To (m)	Width	Sample	Au ppm	Ag ppm	Cu %	Pb %	Zn %
170.15	171.00	RHYcw Curdy textured-flow banded (flows, subvolcanics)									
170.15 - 171: Flow banded, greenish color, MU altered. E.O.H.											
End of Hole @ 171											